European Journal
of Case Reports in
Internal Medicine

ABSTRACT BOOK OF THE

20TH European Congress of Internal Medicine

Internal Medicine in the Front Line of Health Care

9-11 June, 2022
Malaga, Spain

GUEST EDITORS
Ricardo Gomez Huelgas | Dror Dicker

HOW TO CITE

[Surname N, Surname N] et al. [Title of the Abstract], EJCRIM 2022:9 (S1) [ID] [Pages]. DOI: 10.12890/2022_V9Sup1

Publisher: SMC media Srl
Via Giovenale, 7 - 20136 Milan - Italy
ejcrim@smc-media.eu

Official Journal of the
European Federation of Internal Medicine
www.efim.org

INDEX

 DOI: 10.12890/2022_V9Sup1

ORAL PRESENTATIONS

1960 / #O001

HDL SUBFRACTIONS CORRELATE WITH THE EXTENT OF CORONARY ATHEROSCLEROTIC LESIONS: FROM THE CORDIOPREV STUDY

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Background and Aims: Atherosclerotic coronary artery disease (single-vessel coronary (SVD) or multivessel coronary disease (MVD)) determined by angiography is associated with the prognosis of the disease. However, the underlying mechanisms of this relationship remain unclear. We aim to investigate whether potential biomarkers as lipoprotein subfractions are associated with angiographic severity.

Methods: Patients from the CORDIOPREV study were classified into two groups (SVD or MVD) attending to angiography severity. High-throughput nuclear magnetic resonance spectroscopy was employed to determine lipoprotein subfractions concentration and composition. We assessed whether HDL subfractions were correlated to coronary disease severity. We also analysed whether HDL subfractions were independent predictors of MVD when added to classical clinical known risk factors.

Results: SVD patients showed higher concentration of medium and small HDL particles compared with MVD patients. For medium HDL subfractions, total lipids, phospholipids, total cholesterol, cholesteryl esters and free cholesterol reflected HDL particle concentration, whereas for small HDL subfractions, total lipids, phospholipids, and free cholesterol mirrored lipoprotein particle concentration. Among traditional CV risk factors age, presence of HTA and T2DM were independently associated with angiography severity. In multivariate logistic regression models, medium and small HDL particles remained inversely associated with angiography severity (OR 0.8 (95% CI: 0.67-0.94); OR 0.8 (95% CI: 0.69-0.93), respectively).

Conclusions: In persons with CHD, angiography severity is inversely related to small and medium HDL subclasses concentration measured by NMR. These particles are also independent predictors of the presence of MVD and its use increased the prediction of this entity over traditional risk factors.

2325 / #O002

FACTORS ASSOCIATED WITH LOW D-DIMER LEVELS AT DIAGNOSIS OF VENOUS THROMBOEMBOLISM

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Background and Aims: D-dimer is used in the diagnosis of venous thromboembolism (VTE) due to its high negative predictive value, but false negatives can occur. Our objective was to determine the factors associated with low D-dimer levels in a cohort of patients diagnosed with VTE.

Methods: We conducted a prospective observational study on 3165 patients diagnosed with VTE (pulmonary embolism (PE), deep venous thrombosis (DVT) or superficial venous thrombosis (SVT)) in a tertiary care hospital, comparing different characteristics according to their D-dimer levels (< or > 500 ng/ml).

Results: Our results are shown in Tables 1 and 2.

Conclusions: Patients with low D-dimer levels at VTE diagnosis were younger, and had fewer comorbidities including hypertension, dementia, anemia, kidney disease and ischemic heart disease. Interestingly, patients with low D-dimer significantly had more family history of VTE and more prevalence of thrombophilia; this has not been previously reported in the literature and warrants further research. Previous studies have shown that low D-dimer levels at diagnosis are associated with low thrombus burden. Accordingly, we found that low D-dimer patients had less symptomatic VTE, and episodes of PE were less severe. Furthermore, low D-dimer levels were associated with fewer hospital admission. Upper extremities and splanchnic DVT were more frequent in patients with low D-dimer levels. In this sense, D-dimer has not been validated for these VTE locations. In conclusion, patients diagnosed with VTE and low D-dimer levels

 DOI: 10.12890/2022_V9Sup1

have milder presentations and a lower thrombotic burden, but with a higher prevalence of thrombophilia and family history of VTE.

		D-dimer <500 ng/ml (N=333)	D-dimer ≥500 ng/ml (N=2249)	p value
	Female sex	52,0%	48,4%	0,246
	Age (years), mean ± SD	**57,6 +/- 17,2**	**65,3 +/- 17,04**	**<0,001**
	Diagnosis during admission	**3,9%**	**10,9%**	**<0,001**
	Recent hemorrhage	0,9%	2,4%	0,124
	Dementia	**2,1%**	**7,1%**	**0,001**
	Enolism	2,1%	2,2%	0,911
	Previous anticoagulant treatment	2,1%	1,9%	0,983
	Ischemic cardiomyopathy	**3,9%**	**5,3%**	**0,001**
Cardiovascular diseases	Cerebrovascular disease	4,2%	5,6%	0,357
	Peripheral artery disease	1,8%	3,1%	0,251
	Smoking	**23,1%**	**14,2%**	**<0,001**
	Diabetes mellitus	11,4%	13,7%	0,291
	Hypertension	**34,2%**	**45,4%**	**<0,001**
	Heart failure	5,1%	6,2%	0,519
	Atrial fibrillation	2,7%	2,7%	0,865
	Dyslipidemia	22,5%	26,6%	0,131
	Cancer	15,3%	16,5%	0,642
	Recent surgery	7,5%	10,2%	0,152
VTE risk factors	**Recent immobilization**	**15,9%**	**26,3%**	**<0,001**
	Previous VTE	9,9%	12,9%	0,148
	Family history of VTE	**8,4%**	**5,2%**	**0,025**
	Previous SVT	**16,2%**	**3,6%**	**<0,001**
	Hormonal treatment	8,4%	6,4%	0,211
	Pregnancy	0,6%	0,8%	0,958
	Recent labor	0,9%	0,7%	0,973
	Anemia	**12,3%**	**21,4%**	**<0,001**
Analysis	Platelet count < 50000/mm3	0,3%	0,4%	0,842
	Kidney failure	**9,9%**	**22,5%**	**<0,001**
	Chronic kidney failure	**6,6%**	**13,0%**	**0,001**
	Thrombophilia	**11,7%**	**7,8%**	**0,020**

#O002 Table 1: Basal characteristics of patients diagnosed with VTE, compared by their D-dimer value. VTE (venous thromboembolism), SVT (superficial venous thrombosis).

		D-dimer <500 ng/ml (N=333)	D-dimer ≥500 ng/ml (N=2249)	p value
	Required hospital admission	**40,2%**	**61,8%**	**<0,001**
Type of episode	**Isolated PE**	**19,5%**	**35,3%**	**<0,001**
	Isolated DVT	47,7%	45,3%	0,438
	PE and DVT	**4,8%**	**14,8%**	**<0,001**
	SVT	**22,5%**	**2,4%**	**<0,001**
	Asymptomatic PE	**5,4%**	**2,2%**	**0,001**
PATIENTS WITH PE		N=99	N=1135	
	Dyspnea	**57,6%**	**75,4%**	**<0,001**
	Syncope	**3,0%**	**13,5%**	**0,005**
	Chest pain	45,5%	37,3%	0,133
	Hemoptysis	6,1%	3,1%	0,196
	Cough	17,2%	14,8%	0,627
Patients with PE	**PE affecting principal arteries**	**4,0%**	**31,9%**	**<0,001**
	Echocardiogram performed	**62,6%**	**75,9%**	**0,005**
	Right ventricle dilation	**8,1%**	**30,0%**	**<0,001**
	Right ventricle thrombus	0,0%	0,8%	0,785
	SpO2 < 90%	13,5%	19,1%	0,183
	Heart rate > 100 bpm	**16,2%**	**37,6%**	**<0,001**
	Systolic blood pressure < 90mmHg	4,0%	6,1%	0,547
	Elevated troponin	**12,7%**	**43,7%**	**<0,001**
	Nt-proBNP >500 ng/L	**22,0%**	**48,2%**	**<0,001**
	Fibrinolysis	3,1%	6,1%	0,309
PATIENTS WITH DVT		N=166	N=1321	
	Leg pain	**89,8%**	**81,4%**	**0,011**
	Swelling	87,3%	84,6%	0,420
	Left side affected	59,6%	54,0%	0,194
Patients with DVT	**Lower extremities DVT**	**80,7%**	**97,1%**	**<0,001**
	Upper extremities DVT	**16,9%**	**2,6%**	**<0,001**
	Other territories	**1,8%**	**0,2%**	**0,017**
	Distal DVT	**24,1%**	**14,1%**	**0,001**

#O002 Table 2: Clinical presentation of VTE, compared by their D-dimer value. PE (pulmonary embolism), DVT (deep venous thrombosis), SVT (superficial venous thrombosis).

1203 / #O003

THE EFFECT OF OBLIGATORY PADUA PREDICTION SCORING IN HOSPITALIZED MEDICALLY ILL PATIENTS: A RETROSPECTIVE COHORT STUDY

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Background and Aims: Venous thromboembolism (VTE) is considered a preventable cause of mortality. The administration of routine VTE prophylaxis in medical patients is recommended in guidelines. Since 2014, the Israeli Ministry of Health instructed all hospitals to assess hospitalized patients in internal medicine wards for the risk for VTE using the Padua Prediction Score. Administration of prophylactic anticoagulants was not mandatory. The aim of the study is to evaluate the effect of filling the Padua score on patients' outcomes.

Methods: Data were collected from the electronic medical records at Rabin Medical Center in Israel during the years 2014-2017. Primary outcome: 30-day mortality. Secondary outcomes: 90-day incidence of VTE and major bleeding. A propensity-weighted logistic multivariate analysis was performed.

Results: 18,890 patients were included in the study. VTE prophylaxis was administered in 2662/14392 (18%) of patients in the Padua group vs 544/4498 (12%) in the group without the score, OR 1.66 (95% CI 1.49-1.84). Filling the Padua score was not associated with reduction in mortality OR 1.13 (95% CI 0.97-1.31). VTE events occurred in 112 patients in the Padua group (0.8%) vs 30 events (0.7%) in the group without the score. Padua filling was not associated with reduction in VTE, OR 1.22 (95% CI 0.79-1.8). Major bleeding events were not statistically different between the two groups with OR of 1.22 (95% CI 0.96-1.56)

Conclusions: Padua score usage for assessment of VTE risk in medical wards was not associated with any beneficial outcome. Its usage should be reassessed as a performance measure.

DOI: 10.12890/2022_V9Sup1

2300 / #O004

PULMONARY ASPERGILLOSIS ASSOCIATED WITH COVID-19: EXPERIENCE OF A SECOND LEVEL HOSPITAL

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Background and Aims: COVID-19 associated pulmonary aspergillosis (CAPA) is a very serious complication among patients with severe COVID-19. The aim of our study is to retrospectively identify characteristics of patients with COVID-19 and aspergillosis in our center.

Methods: Retrospective analysis of a cohort of COVID-19 patients admitted to a second level hospital in Andalusia with isolation of Aspergillus spp. in respiratory microbiological samples between March 2020 and 2021.

Results: 19 patients were included, all of them admitted to the ICU. Among ICU COVID-19 patients, the prevalence of CAPA was 4.04%. Most isolations were made in bronchial aspirate (59.7%). 15 patients met "possible" CAPA criteria, and 4 were colonized. Aspergillus fumigatus was the most common pathogen, isolated in 73.7%. Serum galactomannan was positive in 3 of 7 samples. Cardiovascular risk factors and the presence of a central venous catheter were the most prevalent characteristics. Most patients were on mechanical ventilation. 94.7% had received corticosteroids, with a cumulative median dose of 678.8 equivalent milligrams of prednisone. 21.1% received tocilizumab. The most used antifungal was voriconazole (52.6%). 10 patients died (52.6%), all diagnosed with CAPA (66.6% mortality among them).

Conclusions: Pulmonary aspergillosis is an important complication among patients with COVID-19 admitted to the ICU. High dose of corticosteroids and mechanical ventilation may be risk factors associated with it. It carries a high mortality and an ominous forecast, so prevention, early diagnosis and even prophylactic therapy must be our priorities. This study identifies the characteristics of patients with CAPA and may help to achieve these objectives.

102 / #O005

POWER STUDY (PORPHYRIA WORLDWIDE PATIENT EXPERIENCE RESEARCH): IMPACT OF PROPHYLACTIC TREATMENT ON CLINICAL BURDEN AND QUALITY OF LIFE AMONG PATIENTS WITH ACUTE HEPATIC PORPHYRIA

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Background and Aims: Acute hepatic porphyria (AHP) is a group of rare genetic diseases of heme biosynthesis resulting in severe neurovisceral attacks and complications that negatively impact quality of life. This study evaluated the impact of prophylactic and non-prophylactic treatment on patient-reported outcomes.

Methods: Adult patients from US, Italy, Spain, Australia, Mexico, and Brazil with AHP with >1 porphyria attack within the past 2 years or receiving intravenous hemin and/or glucose for attack prevention completed an online survey between January 19 and April 26, 2021. Descriptive analyses of demographics, health characteristics, and patient-reported outcomes (utilizing Generalized Anxiety Disorder-7 [GAD-7; scale, 0–21] and Patient Health Questionnaire [PHQ-8; scale, 0–24]) were conducted on all patients and separately among those who did and did not receive prophylactic treatment, defined as routine or scheduled hemin, routine or scheduled intravenous glucose, and/or a gonadotropin-releasing hormone agonist. Patients receiving givosiran were excluded.

Results: 92 patients with AHP completed the survey (mean age, 41.1 years; 90.2% female). Prophylactic treatment was used by 38.0% of patients. Participants receiving and not receiving prophylactic treatment reported their current physical (88.6% and 71.9%), emotional (68.6% and 73.7%), cognitive (54.3% and 52.6%), financial (74.3% and 68.4%), and social health (62.9% and 49.1%) as either poor or fair, respectively. Mean GAD-7 and PHQ-8 scores for patients receiving prophylaxis were 10.3 and 12.4, respectively, and for those not receiving prophylaxis were 10.3 and 11.8, respectively.

Conclusions: Regardless of current treatment approach, AHP patients experience high disease burden and decreased quality of life.

DOI: 10.12890/2022_V9Sup1

908 / #O006

PSYCHIATRIC SYMPTOMS DURING BEHCET DISEASE: A PROSPECTIVE MONOCENTRIC COHORT STUDY

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Background and Aims: Behcet's disease (BD) is a rare vasculitis involving both veins and arteries. Neurological involvement occurs in 5-50% patients. Psychological symptoms ("Psycho-Behcet") appear to be frequent but few data is available in literature.
Methods: A prospective monocentric cohort study. All BD patients (2013 criteria) underwent a psychometric evaluation including the M.I.N.I. questionnaire (for depressive symptoms), the SCL-90R hetero-questionnaire (a 9-dimension scale of psychiatric symptoms), the MFI20 score for fatigue. Data were correlated with the activity of BD (BDCAF and BSAS) as well as the quality of life QoL (SF-36). Data are given in median [inter-quartile range].
Results: We included 20 patients (16 men, 4 women), median [IQR] 38 years old [30.0-45.5], disease duration 7 years [1.8-11.0]. Five had abnormal brain MRI. The most altered dimensions of the QoL (SF-36) were alterations in general health (35% [27.5-55.0] and perceptions of health change (50% [25.0-68.8]). According to SCL-90 questionnaire, the most represented psychiatric symptoms were: somatization (n=6, 30%), compulsiveness (n=5, 25%), phobia (n=5, 25%) and psychotic symptoms (n=4, 20%). Overall, the median Global Severity Index (GSI) was 0.41 [0.18-0.67] and significantly correlated with general and mental fatigue (MFI20) as well as altered QoL (physical and emotional functioning, pain and general health) (Spearman's $|r| > 0.5$ and $p < 0.05$ for all). There was no difference in the scores between patients with cerebral involvement (n=5) and those without (n=15).
Conclusions: Patient with BD have psychiatric symptoms regardless of neurological involvement, that correlate with altered quality of life.

2330 / #O007

PREDICTING LOW INTAKE DEHYDRATION AMONG OLDER ADULT INPATIENTS USING ON ADMISSION MINI NUTRITIONAL ASSESSMENT TEST

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Background and Aims: Dehydration, an important cause of morbidity and mortality in the elderly, commonly accompanies malnutrition. This study aimed to examine the relationship between the Mini Nutritional Assessment-Short Form (MNA-SF) and low intake dehydration (LID) assessed by serum osmolarity in hospitalized elderly.
Methods: A single-center, retrospective study was performed with older adult inpatient aged 65 years or older. Low intake dehydration was assessed using the Khajuria-Krahn formula as recommended by the ESPEN. To predict LID, on admission MNA-SF score was first examined as a scale predictor variable, followed by categorical as normal nutritional state (score>11), at risk (scores 8 to 12), and malnourishment (score<8) based on the MNA-SF.
Results: The study included 412 patients (mean age: 78.4±7.6 years, female: 50%). LID was recorded by 37.5%. Patients were in normal nutritional state, at risk of malnutrition, and malnourished by 34.2%, 32.8%, and 33%, respectively. Multiple regression analyses showed an inverse correlation between MNA-SF score and plasma osmolarity, controlling for study covariates. Multivariable logistic regression analysis showed an independent relationship between decreasing MNA-SF score and the risk of LID as a binary outcome (OR: 1.15; 95% CI: 1.05-1.25; p=0.002). An abnormal nutritional state (MNA-SF score <11) as a binary explanatory variable was also associated with a higher probability of LID, though with a marginal statistical non-significance (OR: 1.79, 95%CI: 0.98-3.28, p=0.058).
Conclusions: This study identified a relationship between the MNA-SF score and serum osmolarity and LID. However, the utility of MNA-SF-based nutritional status classifications in prediciting LID was not robust.

 DOI: 10.12890/2022_V9Sup1

2187 / #O008

THE PSYCHOLOGICAL IMPACT OF COVID-19 INFECTION IN A POPULATION OF ELDERLY PATIENTS

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Background and Aims: Acute illnesses have a significant impact on mental health, especially in elderly patients. This study aimed to analyze the prevalence of subclinical depression in an elderly population surviving COVID-19.

Methods: We did a prospective longitudinal study of hospitalized patients or patients with persistent symptoms over 65 years old who had suffered from COVID-19 from 03/01/2020 to 05/31/2020 confirmed by PCR or seroconversion. Screening for depression was made with Yesavage test in its 15-item version. Evaluation: 3, 6 and 12 months after the acute condition. Follow-up: 12 months.

Results: 90 patients (76 hospitalized) were evaluated. The mean age was 75.43 years (± 6.9 SD) and 51.1% male. Barthel index before the infection was 91.1, after 3 months of the infection was 87.1. Cognitive level according to MMSE was 28 (± 3.8 SD) In the comparison by sex, there was a higher prevalence of depression in women at 3 months (moderate depression 12.21% in men vs. 15.62% in women; severe depression 0% in men vs. 12.54% in women). During the subsequent follow-up, there was an evident improvement both globally and stratified by gender, with the diagnosis of moderate depression being 14.28% in women and 5% in men after one year.

Conclusions: Psychotherapeutic interventions are necessary to allow early intervention to attenuate and reduce the subsequent impact and its sequelae.

1596 / #O009

ADULTS WITH DOWN SYNDROME HAVE A PROTECTIVE CARDIOVASCULAR PROFILE

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Background and Aims: Adults with Down syndrome (DS) do not develop hypertension or atherosclerosis. Our aim was to explore the differences in the cardiovascular profile between a cohort of DS subjects and controls without DS.

Methods: Cross-sectional study that included consecutive DS subjects from the outpatient clinic of the University Hospital de La Princesa (Madrid) and controls without DS (mostly relatives) from June 2018 and September 2021. We collected clinical and demographic data, measured arterial stiffness (pulse wave velocity and augmentation index), performed a thoracic bioimpedance (HOTMAN® System) and conducted Outpatient blood pressure monitoring (OBPM) on those who tolerated it.

Results: We included 61 adults with DS and 60 subjects without DS. DS adults were younger (42.7 [SD 11.6] vs 49.4 years [SD 14.3]; p=0.005), had more hypothyroidism (8.3% vs 57.4%; p<0.0001) and obstructive sleep apnea (0 vs 27.9%; p>0.0001), but less hypertension (1.64% vs 20%; p=0.001), also tended to have a higher body mass index (27.7 [IQR 24.8-31.2] vs 25.8 kg/m2 [IQR 23.4-29.3]; p=0.07). Parameters related to blood pressure in table 1. The pulse wave velocity was 8.2 m/s (IQR 7.1-8.8) for adults with DS and 9.8 m/s (IQR 8.6-12) for adults without DS, p>0.0001. Regarding the HOTMAN® system, we only found differences on blood pressure (8.6% DS vs 25% no DS with high blood pressure; p=0.03) and cardiac index (3.5 [IQR 2.5-4.7] vs 4.1 l/min/m^2 [IQR 3-5.3]; p=0.02).

Conclusions: Adults with Down syndrome present a protective cardiovascular profile mainly based on lower blood pressure and arterial stiffness.

Variables (mmHg); median (IQR)	SD	No SD	Difference	p value
SBP	114 (107-126)	128 (116-143)	-14	<0.0001
DBP	68 (63-73)	79 (71-85)	-11	<0.0001
MBP	84 (77-90)	95 (85-105)	-11	<0.0001
Aortic SBP	105 (97-113)	117 (104-132)	-12	0.0001
Aortic DBP	70 (64-77)	79 (70-86)	-9	0.0005
Aortic MBP	83 (77-90)	94 (83-105)	-11	<0.0001
24 hours OBPM SBP	105 (99-116)	116 (110-124	-11	0.0002
24 hours OBPM DBP	68 (60-76)	73 (68-79)	-5	0.01
24 hours OBPM MBP	80 (73-91)	86 (82-94)	-6	0.002
Daytime OBPM SBP	113 (104-123)	124 (115-135)	-11	0.0003
Daytime OBPM DBP	75 (63-86)	81 (73-88)	-6	0.03
Daytime OBPM MBP	88 (77-98)	96 (88-104)	-8	0.003
Nightime OBPM SBP	96 (89-105)	108 (100-117)	-12	<0.0001
Nightime OBPM DBP	59 (54-64)	65 (59-71)	-6	0.0002
Nightime OBPM MBP	70 (66-78)	79 (72-85)	-9	0.0002

SBP: Systolic Blood Pressure; DBP: Diastolic Blood Pressure; MBP: Mean Blood Pressure; OBPM: Outpatient Blood Pressure Monitoring

#O009 Table 1: Parameters related to blood pressure.

DOI: 10.12890/2022_V9Sup1

795 / #O010

CARDIOVASCULAR RISK FACTORS FOR SEVERE COVID-19: A RESTROPECTIVE COHORT STUDY IN A HOSPITAL IN SEVILLE

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Background and Aims: Cardiovascular risk factors (CVRF) in patients infected with the novel Coronavirus (COVID-19) seem to be associated with poor prognosis. The objective of the study was to assess whether CVRF were associated with the severity of COVID-19 in our population.
Methods: We conducted a retrospective study of patients with severe COVID-19 who were admitted in the Virgen Macarena Hospital between April and December 2020. Severe COVID-19 were considered those patients who were admitted in the Intensive Care Unit or died. A bivariate and multivariate analysis was carried out.
Results: 608 hospitalized patients with COVID-19 pneumonia were included, the median age was 73 years (IQR: 64-81) years. The patients were predominantly male (55.8%). Hypertension was the most common CVRF (83.7%), followed by dyslipidemia (50.2%), diabetes mellitus (43.1%), obesity (32.9%), and smoking (15.6%). During the hospital stay, 139 (22.9%) patients died, and 48 (7.9%) patients required intensive care. A total of 25.8% of the patients had an unfavorable prognosis. In the bivariate analysis, there were no statistically significant differences between CVRF and severe COVID. In the multivariate analysis, variables associated with severe COVID included: male sex, advanced age (OR: 1.697 95% CI: 1.138-2.532), and obesity (OR: 1.634; 95% CI: 1.370-1.947). The C statistic for predicting severe COVID was 0.667 (95% CI: 0.618-0.715).
Conclusions: Our study showed the high prevalence of CVRF in patients with COVID 19. Among these, only obesity proved to be an independent factor for suffering from severe COVID, together with advanced age and male sex.

1280 / #O011

A RELATIONSHIP BETWEEN PCSK9 AND AGE IN HYPERTENSIVE PATIENTS

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Background and Aims: There is a lack of biomarkers able to identify CV risk on early stages. PCSK9 is a protease related to cholesterol metabolism that might have a role in metabolic syndrome, obesity and hypertension. Our aim was to find out a PCSK9 relationship with blood pressure depending on age.
Methods: Our workgroup designed a 2 years prospective observational measuring PCSK9 comparing it with age, gender and blood pressure assessed by AMBP during 24 hours period.
Results: There were 166 patients, 92 men (55,4%) and 74 women (44,6%). Age between 30 and 86 years, mean age 59.5 years, Standard Deviation (SD) 11,4 years (CV=19,2%) and median 58.0 years. There was an almost normal distribution (A=0.50) besides a significant positive relationship between age and PCSK9 (r=0.322; p=0.000). About PCSK9, people with unfitted values (>960) increased with age (p=0.000) from 27% younger than 50 years to 73% older than 65 years. Proportion of Systolic Blood Pressure (SBP) patients increased in both diurnal and nocturnal time, in contrast to Diastolic Blood Pressure (DBP) ones. About blood pressure profile the relationship between PCSK9 and age became stronger in dipper subjects (r=0.571; p=0.000) and could not be found in neither non-dipping (p=0.990) nor in the extreme dipping patients (p=0.538). There was a significant stronger association between age and PCSK9 than the one between age and blood pressure.
Conclusions: PCSK9 level might be used as an independent risk factor for CV disease. Further trials will be needed for using it adequately as a biomarker on a daily basis.

2388 / #O012

EFFECTS OF TREATMENT WITH INTRAVENOUS FUROSEMIDE PLUS SMALL HYPERTONIC SALINE SOLUTIONS ON MARKERS OF ATRIAL STRETCHING, FIBROSIS AND INFLAMMATION IN SUBJECTS WITH HEARTH FAILURE (HFREF)

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Background and Aims: Markers of inflammation, fibrosis and atrial stretching such as inflammatory cytokines and natriuretic peptides are overexpressed in patients with heart failure. Preliminary studies confirmed the safety and tolerability of treatment with intravenous combination of hypertonic saline solutions HSS and high dose furosemide. We sought to evaluate the effectiveness of treatment with furosemide + HSS in terms of reduction of serum levels of some chosen markers of heart failure and the response in terms of these markers at a compensated state after an acute saline load.
Methods: Randomized trial of safety and efficacy of treatment with furosemide + HSS vs furosemide alone at baseline and after an acute saline load. 73 patients were enrolled to be randomized to treatment with i.v high dose furosemide plus HSS, whereas 68 patients to furosemide alone.
Results: Subjects treated with high dose furosemide plus HSS showed no significant difference in mean serum levels of IL-6, hsTN, ST-2, Galectine-1, NT-proBNP at baseline, but showed a higher

 DOI: 10.12890/2022_V9Sup1

degree of reduction in serum levels of IL-6, sST2, NT-proBNP. After saline load patients treated with furosemide + HSS showed a lower increase in serum concentrations of IL-6, sST2, Galectin 3 and NT-proBNP.
Conclusions: Our findings regarding the higher degree of reduction of serum level of cardinal biomarkers seem to be linked to the higher degree of congestion relief with a more rapid achievement of a clinical compensation state. A possible explanation of our findings could be that hypertonic saline solutions may exert possible pleiotropic effects on the remodelling process with possible effects on inflammatory and fibrotic pathways.

2770 / #O013

HDL-CHOLESTEROL AND CANCER INCIDENCE IN THE WORKING POPULATION. 10-YEAR FOLLOW-UP OF THE ICARIA AND IBERSCORE PROJECTS

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Background and Aims: Low and extremely high HDL-cholesterol (HDL-C) levels have been linked to an increased cancer mortality risk (1-6). To analyze the relationship between low (<40/<50 mg/dl.) and extreme (>116/>135 mg./dl.) HDLc levels in men and women, respectively, with the risk of developing a malignant neoplasm in a large sample of the working population followed for ten years.
Methods: 1,849,087 workers (men, 67.8%); mean age 36.7±10.7 years, who attended the Ibermutuamur Prevention Society (today Cualtis) for an occupational medical examination between 2004 and 2009, followed up for 10 years. Sick leave due to malignant neoplasia was coded according to the ICD-9-CM: codes 140-208. Fatal neoplasms (National Institute of Statistics) were coded according to ICD-10: C00-C97 and D00-D48. Three multivariate models were used with different metrics and assumptions, Cox, PH(10) and PO(10), adjusted for age, SBP, triglycerides, LDL, hypolipidemic treatment, smoking, diabetes, obesity, high blood pressure, and alcohol consumption; and estimated independently for women and men.
Results: The events (fatal and non-fatal) due to cancer and the number of workers in the groups with extreme, average or low HDL were, respectively: 22/1687; 8593/ 1,581,048; 1255/221,174; and the incidence ratio for these groups was: 8.8; 1.7 and 2.0 per thousand, respectively (5.1 times higher with extreme HDL and 1.2 times higher with low HDL compared to normal HDL (p<0.001). In the log-logistic multivariate survival analysis, taking normal HDL-C as a reference, the ORs were 3.5 (99% CI 2.2-5.8) for extreme HDL and 1.3 (99% CI 1.2-1.4) for low HDL; similar to the risk ratios obtained with a Cox model.
Conclusions: In this large sample of the working population, taking the group with average HDL as a reference, the risk of neoplasia (fatal or not) in individuals with extreme HDL is much higher than in the group with low HDL.

404 / #O014

SOLUBLE IL-2R LEVELS AT BASELINE PREDICT THE DEVELOPMENT OF SEVERE RESPIRATORY FAILURE AND MORTALITY IN COVID-19 PATIENTS

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Background and Aims: Early and accurate stratification risk of patients with coronavirus disease-19 (COVID-19) by using simple markers is critical to guide therapeutic strategies. Soluble interleukin-2 receptor (sIL-2R) levels have been suggested as prognostic marker for infectious and other diseases. We studied the predictive value of sIL-2R for detecting COVID-19 patients who will develop severe clinical outcomes.
Methods: sIL-2R levels were measured in 197 patients (60.9% males; median age 61-years; moderate disease, n=65; severe, n=132, intubated and/or died, n=42). All patients were treated with combined immunotherapies (anakinra±corticosteroids±intravenous immunoglobulin±tocilizumab) based on initial ferritin levels and according to our local treatment algorithm (Dalekos et al. Eur J Intern Med 2021). The endpoint was the composite event of intubation due to severe respiratory failure (SRF) or COVID-19-related mortality.
Results: Median (interquartile range) sIL-2R levels were significantly higher in patients with severe disease compared to those with moderate disease [6 (6.2) ng/mL vs. 5.2 (3.4) ng/mL, p=0.017]. sIL-2R was the strongest laboratory predictive factor for intubation or death [hazard ratio 1.749, 95%CI 1.041-2.939, p=0.035] even after adjustment for other known risk factors (age, presence of diabetes or cardiovascular disease, pO2/FiO2 ratio, lymphocytes, ferritin, and C-reactive protein). Youden index revealed optimal sIL-2R cut-off for predicting intubation/death at 9 ng/mL (sensitivity: 67%; specificity: 86%; positive and negative predive value: 57% and 91%, respectively).
Conclusions: sIL-2R on admission may reflect disease severity and predict development of SRF and mortality.

 DOI: 10.12890/2022_V9Sup1

1700 / #O015

DIFFERENCES OF CASE FATALITY RATE IN NOSOCOMIAL COVID-19 INFECTION WITH RESPECT COMMUNITY-ACQUISITION COVID-19 IN SPAIN. (SEMI-COVID-19 REGISTRY)

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Background and Aims: This work aims to analyze the differences of case fatality rate (CFR) in nosocomial COVID-19 (NC) infection with respect community-acquired COVID-19 (CAC) in Spain.
Methods: This is a cross-sectional analysis within a retrospective cohort of hospitalized patients with confirmed COVID-19 admitted to 150 Spanish hospitals (SEMI-COVID-19 Registry) from March 1, 2020 to April 30, 2021. NC was defined as patients admitted for non-COVID-19 diseases with a positive SARS-CoV-2 test on the fifth day of hospitalization or later.The endpoint of the study was 30-day all-cause mortality expressed as CFR, or the proportion of in-hospital deaths in relation to the total number of hospitalized NC or CAC patients
Results: Of the 23,219 patients hospitalized with COVID-19, 1,104 (4.8%) were NC. Compared to CAC patients, NC patients were older (median 76 vs 69 years; p<0.001), had more comorbidities (median Charlson Comorbidity Index 5 vs 3; p<0.001). The 30-day in-hospital mortality as measured by the CFR was markedly higher among NC patients with respect to CAC patients (39.1 vs 19.2), with a CFR risk difference of 19.93 (95% CI: 17.04-22.88). The CFR in NC and CAC patients increased with the age, from 5.6 and 1.1% in individuals <40 years to 54.9 and 48.3 in individuals ≥90 years, respectively. Excess mortality in NC patients compared to CAC patients was present in all age groups. In NC and CAC patients, in-hospital deaths occurr
Conclusions: NC is associated with greater CFR than CAC in all age groups. Hospital strategies to prevent NC must be strengthened.

1787 / #O016

INTERACTION BETWEEN DETERIORATION OF LIFESTYLE AND GENETIC PREDISPOSITION IN NAFLD PATIENTS DURING COVID-19 LOCKDOWN

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Background and Aims: Lockdown during Coronavirus disease 2019 (COVID-19) pandemic limited outdoor activities and changed dietary habits. Bad adherence to Mediterranean Diet (MD) and Physical Activity (PA) and genetic predisposition (PNPLA3 gene) are risk factors for Nonalcoholic fatty liver disease (NAFLD) progression. Aim: to evaluate changes on metabolic and hepatic disease in NAFLD patients after COVID-19 lockdown.
Methods: 357 NAFLD patients were evaluated before COVID-19 lockdown and 6 months apart. Anthropometric, metabolic (type 2 diabetes, hypertension, dyslipidemia) and laboratory data (glycemia, lipids, transaminases) were collected before and after lockdown, along with ultrasound (US) grading of steatosis and information about adherence to MD and PA. In 222 patients genotyping for PNPLA3 was available.
Results: After lockdown 48% of patients gained weight (mean increase weight 3.2 ±2.4 Kg) and 16% worsened steatosis grade. Weight gain was associated with bad adherence to MD (p=0.005) and PA (p=0.03). Moreover, PNPLA3 GG genotype was more prevalent in patients who gained weight compared to those who did not (p=0.04). At multivariate analysis (corrected for age, sex, MD, PA and PNPLA3 GG) only PNPLA3 remained independently associated with weight gain (p=0.04). In patients who gained weight higher glycemia (p=0.002) and transaminases (p= 0.02) levels were registered after lockdown.
Conclusions: During lockdown, due to a dramatic change in lifestyle, almost half of our cohort of NAFLD patients gained weight with worsening of metabolic and hepatologic features. Interestingly PNPLA3 GG genotype modulated the effect of lifestyle and emerged as an independent risk factor for weight gain, opening new perspectives in NAFLD patients care.

DOI: 10.12890/2022_V9Sup1

604 / #O017

CLINICAL OUTCOMES OF COVID-19 IN PATIENTS WITH RHEUMATOID ARTHRITIS: A LARGE POPULATION COHORT STUDY

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Background and Aims: Rheumatoid Arthritis (RA) patients are more susceptible to overall infection due to immunomodulatory therapy and underlying pathology. Coronavirus disease 2019 (COVID-19) has represented a considerable concern to RA patients. We evaluated whether they had poorer outcomes in terms of hospitalization and death following SARS-CoV-2 infection compared to the general population. Additionally, we examined the impact of therapeutic strategies for RA and associated comorbidities on the disease course.

Methods: We utilized the Clalit Health Services Database in Israel and gathered a retrospective cohort, population-based longitudinal study. The study population included 1404 RA patients and 1404 controls, a total of 2808 patients, who were COVID-19 infected between 03/01/2020-12/31/2020.

Results: We found a significantly higher rate of hospitalization and death in RA (20.7% vs. 16.3% p<0.01 hospitalization and 5.4% vs. 3.4% deaths p<0.01). Statistical significance was lost (p=0.07, p=0.09) when different baseline characteristics and comorbidities were compared in a multivariate logistic regression model. Death and hospitalization were associated with asthma (hospitalization p=0.024, death p=0.02), COPD (hospitalization p<0.001, death p=0.001), chronic renal failure (hospitalization p<0.001, death p<0.001), diabetes (hospitalization p<0.001, death p=0.003), hypertension (hospitalization p<0.001,death p<0.001) and smoking (death p=0.013). Treatment with csDMARDs and prednisone was a significant risk factor of COVID-19 related death and hospitalization (hospitalization p=0.002, death p=0.003. hospitalization p<0.001, death p<0.001, respectively).

Conclusions: COVID-19 associated hospitalization and death were significantly higher in RA patients. The risk is being attributed mainly to the baseline comorbidities and treatment with csDMARDs and prednisone. Prevention and management strategies for particularly vulnerable individuals such as RA patients are highly advisable.

1130 / #O018

RISK FACTORS FOR MORTALITY IN PATIENTS WITH ATRIAL FIBRILATION AND HOSPITALIZED FOR COVID-19. IMPLICATIONS OF ORAL ANTICOAGULANT THERAPY. SEMI-COVID-19 REGISTRY DATA

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Background and Aims: Atrial fibrillation and associated comorbidities pose a risk factor for mortality, morbidity and development of complications in patients admitted for COVID-19. The objective is to describe the clinical, epidemiological, radiological and analytical characteristics of patients with AF admitted for COVID-19 in Spain. Secondarily, we aim to identify those variables associated with mortality and poor prognosis of COVID-19 in patients with AF.

Methods: Retrospective, observational, multicenter, nationwide, retrospective study of patients hospitalized for COVID-19 from March 1 to October 1, 2020. Data were obtained from the SEMI-COVID-19 Registry of the Spanish Society of Internal Medicine (SEMI) in which 150 Spanish hospitals participate.

Results: Between March 1 and October 1, 2020, data from a total of 16,461 patients were entered into the SEMI-COVID-19 registry. The number of deaths among AF patients amounted to 738 (41%). Regarding clinical characteristics, deceased patients were admitted with a higher heart rate (88.38 vs 84.95; p>0.01), with a higher percentage of respiratory failure (67.2% vs 20.1%; p<0.01) and high tachypnea (58% vs 30%; p<0.01). The comorbidities that presented statistically significant differences in the deceased group were: age, hypertension and diabetes with target organ involvement. There was also a higher prevalence of a history of cardiovascular disease in the deceased. On multivariate analysis, DOACs treatment had a protective role for mortality (OR:0,597) IC (0,402-0,888; p=0.011).

Conclusions: Previous treatment with DOACs and DOACs treatment during admission seem to have a protective role in patients with AF, although this fact should be verified in prospective studies.

DOI: 10.12890/2022_V9Sup1

1620 / #O019

COVID-19 AND CALCIUM HOMEOSTASIS DISORDERS: PRESENCE OF HYPOCALCEMIA IN SARS-COV2 INFECTION IS ASSOSIATED WITH DISEASE SEVERITY

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Background and Aims: COVID-19 is a multifaceted disease with multiple manifestations by the respiratory system and other systems. Hypocalcemia has been proven to have a higher incidence in COVID-19 patients than in non-COVID-19 hospitalized patients. This research aims to uncover the correlation between inflammation markers and disease severity with the presence of hypocalcemia in COVID-19 patients.

Methods: Data from 334 patients, hospitalized on 02/2020-12/2020 in the Infections Unit of University Hospital of Ioannina. Hypocalcemia was defined as Ca2+ <8 mg/dL. The collected data were analyzed using non-parametric Mann-Whitney u test (hypocalcemic vs normocalcemic) and Fisher's exact test.

Results: The patients' mean age was 65.5 years and 186 of them were male (55.6%). The most common comorbidities were: arterial hypertension, diabetes mellitus and cardiovascular disease. Hypocalcemia during hospitalization was documented in 59 patients (17.6%). The hypocalcemic group of patients had higher maximum values of C-reactive protein (CRP) (115 vs 77 mg/L, p=0.0002), higher ferritin levels (669 vs 433 ng/ml, p=0.001) and lower minimum levels of PO2/FiO2 (PF) ratio (174 vs 240, p=0.002) compared to the group with normal calcium levels. In the hypocalcemic group there was a higher probability of death during hospitalization (OR=4.43, p=0.0001).

Conclusions: Hypocalcemia is associated with higher levels of inflammatory markers and lower mean levels of PF ratio. The significantly higher probability of death in hypocalcemic patients indicates that hypocalcemia is a severe complication of COVID-19 and considering the high incidence in these patients we shall be vigilant in the early diagnosis and treatment of this disorder.

385 / #O020

ADOLESCENTS WHO STUTTER AND TYPE 2 DIABETES IN YOUNG ADULTS

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Background and Aims: Type 2 diabetes and stuttering were linked to alterations in the hypothalamic-pituitary-adrenal axis and dopamine metabolism dysregulation. Yet, there is little data regarding the risk for incident diabetes among adolescents who stutter, possibly due to an avoidant behavior of these individuals and limited information regarding comorbidities. We investigated the association between stuttering in adolescence and incident type 2 diabetes in young adulthood in a nationwide cohort of 2.2 million adolescents.

Methods: This nationwide population-based study included 2,193,855 adolescents aged 16-20 years who were assessed for military service between 1980 and 2013. A speech-language pathologist confirmed diagnoses of stuttering in adolescence. Diabetes status for individuals as of December 31, 2016, was determined by linkage to the Israeli National Diabetes Registry. Relationships were analyzed using regression models adjusted for socioeconomic variables, cognitive performance, coexisting morbidities, and adolescent BMI.

Results: Analysis was stratified by sex (pinteraction=0.035). Of the 4,443 (0.4%) adolescent men with stuttering, 162 (3.7%) developed type 2 diabetes, compared to 25,678 (2.1%) men without stuttering (adjusted odds ratio 1.3, 95% CI 1.1–1.6). This relationship persisted when unaffected brothers of men with stuttering were used as the reference group (adjusted OR=1.5, 95%CI 1.01-2.2) or when the analysis included only adolescents with unimpaired health at baseline (adjusted OR=1.4, 95%CI 1.1-1.7). Of the 503 (0.1%) adolescent women with stuttering 7 (1.4%) developed type 2 diabetes (OR=2.03, 95%CI 0.48-2.20).

Conclusions: Adolescent stuttering is associated with an increased risk for early-onset type 2 diabetes among men.

 DOI: 10.12890/2022_V9Sup1

1811 / #O021

COMPARISON OF SEVERITY OF LIVER DAMAGE, METABOLIC ALTERATIONS AND CARDIOVASCULAR DAMAGE IN PATIENTS WITH NAFLD ATTENDING THE HEPATOLOGY CLINIC OVER THE LAST THREE DECADES

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Background and Aims: Non-alcoholic fatty liver disease (NAFLD) is spreading over the last years, paralleling unhealthy modifications in lifestyle and increasing prevalence of metabolic disease. Aim: to assess whether severity of liver, cardiovascular and metabolic disease changed over time.

Methods: 430 patients (346 male, 84 female) with biopsy proven NAFLD were enrolled from 1990 and 2021 (period of presentation divided into 3 decades: 1990-2000, 2001-2011, 2012-2021). Metabolic parameters, subclinical atherosclerosis (carotid intima media thickness and plaques) and histological liver damage were assessed.

Results: No differences in age of presentation, sex, subclinical atherosclerosis and prevalence of dyslipidemia and hypertension were found across decades. A higher prevalence of diabetes and increased BMI (p=0.001) and liver enzymes (p<0.001) were observed over time. Higher prevalence of severe steatosis (12%, 18% and 35%, p=0.001), NASH (42%, 44% and 78%, p=0.0001) and fibrosis>F2 (20%, 25% and 44%, p=0.0005) was observed in the last decade compared to the previous ones. Considering the whole cohort, diabetes (OR 3.4, 95%CI 1.59-7.53) and severe steatosis (OR 4.5, 95%CI 2.1-9.9) were independent risk factors for NASH, whereas age (0.07, 95%CI 0.03-0.10), diabetes (OR 3.2, 95%CI 1.4-7.0) and severe steatosis (OR 2.3,95%CI 1.03-5.4) for fibrosis.

Conclusions: Over the past 10 years compared to previous decades, patients with NAFLD presented to observation with more severe liver disease, possibly paralleling the spread of diabetes and obesity. Our findings suggest the need, once a patient with NAFLD is diagnosed in primary care, to refer the patient to the hepatology center, promptly checking for hepatic fibrosis.

618 / #O022

LONG TERM OUTCOMES IN A LARGE COHORT OF AUTOIMMUNE PANCREATITIS PATIENTS

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Background and Aims: Autoimmune pancreatitis (AIP) is a rare form of pancreatitis that can lead to chronic pancreatitis. Type-1 AIP is part of the IgG4-related disease spectrum showing concomitant other organs involvement and a swift response to glucocorticoids (GC). Yet, relapses are common forcing multiple GC courses in a frail population, leading to metabolic derangements. A GC-based maintenance treatment appears to lower relapse rate, but data on the long-term safety of this strategy are lacking. Our aim was to report the long-term outcomes of a large cohort of AIP patients from a tertiary care center.

Methods: We enrolled 75 patients in this unicenter retrospective study. AIP diagnosis was made according to the available criteria. The role of GC maintenance on long-term events was evaluated with Cox Regression analysis. Categorical variables were compared using Fisher's exact test. Patients presenting with diabetes at the time of diagnosis and those who underwent surgery were excluded for the analysis of long term metabolic outcomes.

Results: The male to female ratio was 4:1. The median age at diagnosis was 64 years (IQR 54-71). Median follow up was 32 months (IQR 17-42). Relapses occurred in 20 (26.7%) patients with a median time to relapse of 14.5 months of whom 50% received a GC-based maintenance tretment (p >0.05 for preventing relapse). A higher incidence of diabetes (41% vs 9%) (HR 4.8 95% CI 1.05-22) and infectious cholangitis (31%vs 5%) occurred in those who received maintenance treatment compared to others.

Conclusions: Long-term treatment with GC in AIP patients might increase the risk of metabolic and endocrine complications. Steroids-sparing strategies are warranted.

 DOI: 10.12890/2022_V9Sup1

527 / #O023

NON-INVASIVE BIOMARKERS FOR THE ASSESSMENT OF LIVER FIBROSIS IN MULTI-TRANSFUSED PATIENTS WITH THALASSEMIA MAJOR

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Background and Aims: Multi-transfused adult patients with thalassemia major (MTTM) are at increased risk of developing liver fibrosis due to iron overload. Transient elastography (TE) has been proved to reliably assess fibrosis stage in MTTM, but is not always available. The present study aimed to investigate the performance of non-patented serum biomarkers of liver fibrosis that have been validated in other chronic liver diseases, in thalassemic patients.

Methods: MTTM who were followed-up in two Greek academic centers (131 in Larissa, 81 in Thessaloniki) and had available TE measurements were included. AST to Platelet Ratio Index (APRI), Fibrosis-4 (FIB4), aspartate aminotransferase and alanine aminotransferase ratio (AAR), and Gamma-glutamyl transpeptidase to Platelet Ratio (GPR) were retrospectively calculated. The thresholds used were: >10kPa for severe fibrosis (SF)_ and >13 kPa for cirrhosis.

Results: 212 MTTM (100 males) median age 38 (19-76) years, with body mass index 23 (17-35), ferritin levels 608 (42-8006) ng/ml, liver iron concentration 3.2 (0.3-58) mg/g dry weight were included. Thirty patients (14%) had SF and 19 (9%) cirrhosis. GPR and APRI performed better both for SF (AUC: 0.726 and 0.66, respectively) and cirrhosis (AUC: 0.756 and 0.69, respectively). GPR>0.102 showed sensitivity 63%, specificity 81% and NPV 93% for SF, while GPR >0.154 had sensitivity 68%, specificity 88% and NPV 96.6% for cirrhosis. APRI>0.37 had sensitivity 50%, specificity 82% and NPV 91% for SF, while APRI>0.28 had sensitivity 68%, specificity 70% and NPV 96% for cirrhosis.

Conclusions: Both APRI and especially GPR can safely exclude SF and cirrhosis in MTTM and could be used alternatively to TE for liver fibrosis assessment.

891 / #O024

CHARACTERISTICS OF MEDICAL PRODUCTS AUTHORIZED BY THE US FOOD AND DRUG ADMINISTRATION THROUGH EMERGENCY USE AUTHORIZATION: A CROSS-SECTIONAL STUDY

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Background and Aims: The Emergency Use Authorization (EUA) program enables the US Food and Drug Administration (FDA) to facilitate the availability of medical countermeasures in public health emergencies. The implications of emergency authorization without adequate supporting data are unknown. We aim to describe the characteristics of the products authorized via the EUA program

Methods: A cross sectional study analysing all EUAs granted by the FDA prior to January 22, 2021. The main outcome was the level of evidence supporting EUAs. Secondary aims included characterisation of EUA indications and revocation causes.

Results: 458 products granted EUA. Most (n=393, 86%) were approved for COVID-19. 386 (84%) EUAs were granted for diagnostics, followed by 53 (12%) for medical devices and 19 (4%) for therapeutics. Most (n=296, 77%) diagnostics were supported by comparisons to previously approved products. Most (n=31, 58%) medical devices were granted EUA without any supporting evidence. Of 19 therapeutics, 8 (42%) and 2 (11%) were supported by RCTs and observational data, respectively. The data supporting 9 (47%) drugs were not specified. Of 40 (9%) products revoked by the FDA, most (n=23, 58%) were revoked due to end of declared emergency, and 7 (18%) were approved by conventional FDA pathway. 5 (12%) products were revoked due ineffectiveness or safety issues. The median time to revocation was 193 days (IQR 128-418).

Conclusions: The COVID-19 pandemic was associated with unprecedented use of the EUA pathway. Most authorized products were diagnostics supported by comparative non-clinical tests of small sample size. Most medical devices and many drugs were not supported by robust data.

DOI: 10.12890/2022_V9Sup1

2351 / #O025

THE FASTING TEST – THE MOST SENSITIVE TOOL TO DISTINGUISH FUNCTIONAL AND ORGANIC HYPOGLYCEMIA

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Background and Aims: There are several causes of non-diabetic hypoglycemia. Sometimes it is complicated to differentiate functional (reactive) and organic hypoglycemia caused by insulinoma. The aim was to compare whether biochemical and clinical characteristics during fasting test could differentiate both diagnoses.

Methods: 84 patients (mean age 50±16 yrs) with history of unclear hypoglycemia underwent a 72-hour fasting test at our Department. The test was stopped earlier when neuroglycopenic symptoms developed. Blood glucose (BG), insulin (Ins) and C peptide were regularly assessed.

Results: Positive fasting test (F+ group) in 43 persons developing neuroglycopenic symptoms was stopped earlier (duration 24±17 hrs) as compared to F- group without these symptoms. Both groups were similar in age, BMI or arterial pressure. Significant differences between F+ and F- were observed at the end of the test (BG: 2.0±0.4 vs 3.8±0.8 mmol/L, p<0.0001; Ins: 61 (11;111) vs 13 (5;22) mU/L, p<0.0001; C peptide: 1.4 (0.5;2.1) vs 0.4 (0.1;0.6) nmol/L, p<0.0001). The insulin/BG ratio at the end of fasting significantly distinguished both groups of patients [16.6 (5.6;49.1) vs 2.7 (1.3;5.9), p<0.0001]. Insulinoma was then confirmed in all F+ patients by surgery. All F- patients improved after dietary counselling when free sugars consumed in the fasting state were omitted.

Conclusions: Fasting test is a useful diagnostic tool in evaluation of unclear non-diabetic hypoglycemia. Neuroglycopenic symptoms associated with spontaneous hypoglycemia in fasting test are the most sensitive indicators of insulinoma. The insulin/BG ratio brings additional benefit in differentiating organic and functional hypoglycemia.

1100 / #O026

RENAL AND ENDOTHELIAL FUNCTION IN PATIENTS WITH CHRONIC HEART FAILURE AND OBESITY

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Background and Aims: To study the functional state of the kidneys and endothelium in patients with chronic heart failure (CHF) and obesity.

Methods: The study included 116 patients with CHF of functional class I-III (FC) of ischemic genesis aged from 40 to 65 years. All patients were divided into 3 groups: group 1 included patients with CHF with normal body weight (n=34), group 2 - overweight CHF (n=40), group 3 - CHF and grade 1-2 obesity (n=42). Endothelial function and functional state of the kidneys were studied. A parallel analysis of endothelial function indicators was carried out in conjunction with the assessment of the functional state of the kidneys.

Results: A statistically significant increase in the concentration of endothelin 1 (ET-1) and a decrease in nitric oxide (NO) metabolites in the serum of patients with CHF and obese / overweight compared with patients with CHF and normal body weight (1.94±0.05 and 1.71±0.07 vs 1.47±0.06 pg/ml and 453.6±23.5 /576.6±20.3 vs 721.6±21.4 microns, respectively) was found. When assessing the functional state of the kidneys, higher values of albuminuria were noted, as well as a decrease in the glomerular filtration rate in the main group compared to the control group (267.4±10.2 vs 118.9±11.4 mg/g and 61.3±2.8 vs 72.3±2.7 ml/min/1.73 m^2, respectively, p<0.05). Reliable correlations between the functional state of the endothelium and kidneys have been established.

Conclusions: The data obtained indicate deterioration of kidney function and progression of endothelial dysfunction in patients with CHF in combination with obesity and/or overweight.

2292 / #O027

METABOLICALLY HEALTHY OBESITY: INFLAMMATORY BIOMARKERS AND ADIPOKINES IN ELDERLY POPULATION

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Background and Aims: Obesity is linked to elevated levels of inflammatory serum markers such as C-reactive protein (CRP), interleukin-6 (IL-6), and tumor necrosis factor alpha (TNFa). Adiponectin and resistin are adipokines related to obesity. Our aim was evaluate the impact that lifestyle modifications (following a mediterranean diet (MedDiet) and doing physical activity (PA)), would have on inflammatory biomarkers and adipokine profile in a metabolically healthy obese (MHO) elderly population from Malaga (Andalusia, Spain).

Methods: People aged >65 years with obesity (BMI ≥30 kg/m^2) were included in this study if they met ≤1 of the metabolic syndrome criteria. Anthropometric measurements, PA, MedDiet adherence, analytical parameters, and inflammatory biomarkers were analyzed after 12 months of intervention.

Results: 166 MHO elderly people, 40 (24.1%) male and 126 (75.9%) female (p<0.0001), aged 71.7±5.2 years old (65 to 87 years old) were included in the study. After 12 months, only the waist circumference was significantly reduced in all the population (-2.5 cm, p<0.0001), although weight and BMI were maintained. MedDiet adherence increased significantly (p<0.001),

DOI: 10.12890/2022_V9Sup1

but all intensity levels of PA decreased significantly (p<0.001). Concerning inflammatory biomarkers, only TNFa serum increased their levels after the intervention (p<0.001). Regarding the adipokine profile, adiponectin concentrations experienced a significant increment (p<0.001); besides, resistin concentrations decreased significantly (p<0.001).
Conclusions: Elder MHO population who eat a MedDiet and practice regularly PA are capable to modulate their production of inflammatory cytokines (CRP, IL-6, TNFa) and adipokines profile (adiponectin, resistin), preventing other metabolic disorders.

2771 / #O028

GLOBAL COVID-19 PATIENT COUNCIL: PATIENT PERSPECTIVE IN COVID-19 EDUCATION, CARE AND CLINICAL RESEARCH

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Background and Aims: There have been limited opportunities for the patient voice to be heard formally through the COVID-19 pandemic. To better understand the patient journey, Gilead Sciences created a standing global patient council of COVID-19 patients.
Methods: Patients with different geographical, race, age, health status, and COVID-19 disease experiences were recruited globally. In initial meetings, the patients shared their disease journey and discussion was focused to detect information gaps, critical timepoints to receive information and trusted sources. In subsequent meetings patients provided their perspectives, review, and user testing of educational content and clinical trial design.
Results: The council consists of 7 US patients, 5 Europeans, 1 Canadian and 2 from Latin America. Information shared by trusted community-based advisors was identified as an important source of COVID-19 information for the US patients. A subgroup gave input into the development of educational materials for a series of community health webinars that engaged over 200 US community health workers. Patients advised in the writing of a plain language summary (PLS) of a Gilead COVID-19 trial. The council review resulted in PLS modifications to foster improved health literacy.
Input was collected for trial design and materials for an investigational COVID-19 drug candidate. Focused discussions and quantitative surveys assessed patient perceptions of study concepts, including the perceived burden and value of the trial.
Conclusions: Patients, engaged throughout the lifecycle of drug development, can add meaningfully to development planning and communications.

126 / #O029

IMPACT OF MEDICATION REVIEW AND ENHANCED INFORMATION TRANSFER AT HOSPITAL DISCHARGE ON OLDER PATIENTS WITH POLYPHARMACY—A CLUSTER RANDOMIZED CLINICAL TRIAL

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Background and Aims: Medication safety at transitions of care is a focus of the Third WHO Global Patient Safety Challenge. Medication review and information transfer between health care professionals are key targets to reduce medication-related harm. We studied whether a discharge intervention combining medication review with enhanced information transfer between hospital and primary care physicians can delay readmission and impact other health-related outcomes of older inpatients with polypharmacy.
Methods: Cluster-randomized controlled trial in 21 Swiss hospitals with 6 months follow-up. In total, 68 unblinded senior physicians and their blinded junior physicians included 609 patients of ≥60 years taking ≥5 drugs. Hospitals were randomized to either integrate a checklist-guided medication review and communication stimulus into their discharge procedure, or follow usual discharge routines. Primary outcome was time-to-hospital-readmission within six months. Secondary outcomes covered health care utilization, medication, and the patients' quality of life.
Results: Patients' characteristics were: mean age 77.5 (SD 8.6) years, 49.4% female, 9.6 (SD 4.2) drugs/patient. Time-to-first-readmission to any hospital did not differ significantly between study arms (adjusted HR 1.14 (intervention vs. control; SD 0.21), p = 0.54), nor did the 30-day readmission rates (6.7% [95% CI 3.3%-10.1%] vs. 7.0% [3.6%-10.3%]). Overall, we found no clinically relevant differences between study arms at 1, 3, and 6 months after discharge.
Conclusions: The combination of a structured medication review with enhanced information transfer did neither delay hospital readmission nor improve other health-related outcomes of older mulitmorbid inpatients. Our results may help in balancing practicality versus stringency and rigor in similar hospital discharge interventions.

DOI: 10.12890/2022_V9Sup1

219 / #O030

ASSESSMENT OF NUTRITIONAL STATUS IN ELDERLY PATIENTS HOSPITALIZED IN INTERNAL MEDICINE.

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Background and Aims: The aim of this study was to analyze the prevalence of malnutrition and risk of malnutrition in hospitalized patients aged ≥85 years and to evaluate the factors related to the nutritional status of these patients.
Methods: A prospective observational study that included patients aged ≥85 years admitted to Internal Medicine over March-May 2021 who underwent the Mini-Nutritional-Assessment (MNA) during admission. Sociodemographic, clinical and analytical characteristics, different scales, grip strength by dynamometry, treatment, hospital stay and in-hospital mortality were collected. Differences were evaluated according to nutritional status.
Results: Out of a total of 86 patients, 36 were male (41.9%) and the mean age was 88.7 years (SD: 2.8; range: 85-97). 15 patients had normal nutritional status, 44 (51.2%) were at risk of malnutrition and 27 (31.4%) were malnourished. Neither the risk of malnutrition nor malnutrition was related to age in these very old patients. The presence of malnutrition (MNA ≤7) was more frequent in women (p=0.003), patients with caregiver (p=0.005), frail (p<0.001) and it was also associated with the presence of cognitive impairment (p=0.005), functional impairment (p=0.017), with the Profund index (p<0.001) and it was significantly associated with a lower grip strength (p<0.001). However, no relationship was observed between malnutrition and comorbidity assessed by the Charlson index (p=0.38).
Conclusions: Four out of five hospitalized patients aged ≥85 years have altered nutritional status and almost one-third are malnourished. The risk of malnutrition and malnutrition are more frequent in women with caregivers and in frail patients. The presence of malnutrition is also related to cognitive and functional decline and muscle strength decrease.

427 / #O031

SARCOPENIA, VITAMIN D DEFICIENCY AND FRAILTY IN HEART FAILURE. ASSESSMENT OF NUTRITIONAL STATUS AS PROGNOSTIC INDICATORS IN THE ELDERLY.

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Background and Aims: Frailty is a state of vulnerability and a consequence of cumulative decline in multiple physiological systems over a lifespan. In older people, sarcopenia and frailty have been used for risk stratification, to predict adverse outcomes and to prompt intervention aimed at preventing decline in those at greatest risk.
Methods: Patients aged >70 years with a diagnosis of heart failure (HF) admitted to acute wards at a Spanish hospital were prospectively recruited.This study sought to characterize the differences in outcomes in hospitalized patients with heart failure who presented data of sarcopenia and/or vitamin D deficiency. A statistical study was carried out to consider how these variables influence as a possible prognostic factor.
Results: 112 participants (median age 79.2 years, 64,6% men) were recruited. 110 (98,2%) patients completed the FRAIL scale; frailty was identified among 77 (70%). There was moderate agreement between the two frailty tools (Kappa value:0.46, 95% CI:0.34-0.58). Complete data for the EWGOSP criteria were only available for 62 (56.4%) patients of whom 44 (40%) had sarcopenia. Lower 25(OH)D levels (per 10 ng/mL decrease) tended to be associated with higher 1 year mortality, P<0.001, hazard ratio (HR) 3.01 [1.88; 4.42]. Furthermore, lower 25(OH)D levels and sarcopenia were related to an increased rate of cardiovascular hospitalizations, P=0.02, HR=2.11 ;95 CI 1.87;6.92], mortality (P=0.001, HR=4,02; 95% CI:1.5; 8.01)and other selected baseline characteristics and co-morbidities, P=0.004, HR=5.61 [1.12;10.41].
Conclusions: Frailty, comorbidity, sarcopenia, cachexia, vitamin D deficiency, and cognitive decline are factors associated with a poor prognosis and increased mortality in the elderly patient.

463 / #O032

WHICH FACTORS ASSIST IN RULING OUT HSV-1 ENCEPHALITIS AS A POTENTIAL DIAGNOSIS?

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Background and Aims: The classical clinical picture of Herpes simplex 1 (HSV-1) encephalitis (HSVE), a febrile patient with neurological impairment, is extremely non-specific and can suggest a variety of diagnoses. We aimed to identify factors on initial presentation that would aid the diagnosis of HSVE.
Methods: A single-center matched case control retrospective study in the Sheba Medical Center between the years of 1999-2017. The cases were adult patients with HSVE. The controls were patients with similar clinical pictures but with negative lumbar puncture PCR results.
Results: We identified 26 cases and 112 controls. Factors significantly associated with increased rates in HSVE when compared to controls were seizures {13 (50%), 21 (19%)}, headaches {16 (61%, 14 (12%)} and CSF pleocytosis {20 (76%), 32 (28%)}. Factors with lower rates when compared to controls were tachycardia {89.3 (±18.7), 94.7 (±13.9)}, respiratory infection signs {2 (8%), 54 (49%)} and pathological urinalysis {3 (12%), 51

 DOI: 10.12890/2022_V9Sup1

(81%)}. A CHAID decision-tree analysis, performed on statistically significant variables. showed that they likelihood of a patient to have HSVE when they reported no headache and had normal CSF cell counts was 1.7% (95% CI 1.4-5.8).
Conclusions: Our study suggests that headaches are more important initial symptoms than initially thought and its absence reduces the likelihood of HSVE. However, further more robust research is needed and in the interim clinical judgement should still be the guiding factor in diagnostic and treatment decision making.

615 / #O033

OUTCOMES OF GENERAL MEDICAL IN-PATIENTS HARBORING COLISTIN-RESISTANT ACINETOBACTER BAUMANNII

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Background and Aims: Resistance to colistin, a last-resort antibiotic for infections with carbapenem-resistant *Acinetobacter baumannii* (Ab) is an emerging healthcare threat. We present outcome data of patients with colistin-resistant Ab (CoRAb) from a General Medicine department of a tertiary urban hospital in Greece.
Methods: The study population consisted of all patients (n=122, mean age 78.1 years, 57% males) with Ab isolated from any biological specimen during the period 2017-2020. Colistin resistance breakpoints were those defined by CLSI.
Results: Colistin resistance was found in 42% of cases, rising significantly from 31.1% in 2017-18 to 53.4% in 2019-20 (p=0.014). There was a parallel significant (p=0.04) rise in the crude mortality associated with Ab carriage from 48.4% (2017-19) to 66.7 (2019-20). Logistic regression analysis with death as dependent variable and age, sex, length of hospitalization, site of specimen, number of antimicrobials received and in vitro sensitivity to colistin as covariates, showed that only the site of specimen was significantly (p=0.024) associated with death. In patients who had CoRAb isolated from blood cultures (n=6) mortality was 100%, whereas in those with colistin-sensitive Ab (CoSAb) bacteremia (n=13) mortality was 46,2% (p=0.044). For Ab isolated from other sites, mortality of patients with CoRAb did not differ significantly from that of CoSAb.
Conclusions: The lack of difference in overall mortality between patients with CoRAb and those with CoSAb is probably due to the fact that isolation of Ab from frail, elderly multi-morbid patients may merely reflect colonization. However, in the small subgroup with bloodstream infection, colistin resistance appeared to lead inexorably to death.

1182 / #O034

COULD MODIFIED EARLY WARNING SCORE (MEWS) BE USED AS A PREDICTOR FOR PROLONGED HOSPITAL STAY OR MORTALITY IN INFLUENZA-LIKE ILLNESS?

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Background and Aims: Influenza like illness (ILI) is defined as a condition with at least one systemic and one respiratory symptom. The modified early warning score (MEWS) is a useful tool for identifying those at risk of inhospital death. Nutritional risk screening (NRS 2002) is a strong and modifiable predictor risk score for short-term and long-term clinical outcomes. We aimed to examine the impact of MEWS and NRS-2002 on the length of hospital stay and mortality from ILI.
Methods: In this prospective surveillance study, patients admitted to our hospital in 2019-2020, 2020-2021 seasons with ILI were recruited. The vital signs, comorbidities and sociodemographic information of the patients, and MEWS, NRS-2002 at admission were recorded. Respiratory specimens were analysed for viruses. Patients were followed until discharge or death.
Results: A total of 168 adult patients were recruited. The median age was 58 years. 64 patients were evaluated in the 2019-2020 season: 16 influenza A, 4 influenza B, 4 RSV were detected. 104 patients were evaluated in the 2020-2021 season, 65 SARS-CoV-2 were detected. No significant difference was found between the patients with MEWS <4 and MEWS ≥4 in terms of length of hospital stay and mortality. No significant difference was found between the patients with NRS <3 and NRS ≥3 in terms of length of hospital stay and mortality.
Conclusions: The effectiveness of MEWS and NRS-2002 in predicting length of hospital stay and mortality in patients with ILI couldn't be demonstrated.

DOI: 10.12890/2022_V9Sup1

1139 / #O035

DELPHI, SWOT, AND PERFORMANCE ANALYSIS AFTER COVID TWO PANDEMIC WAVES: AN INNOVATIVE STUDY IN WHICH INTERNAL MEDICINE MEETS INFECTIOUS DISEASE.

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Background and Aims: COVID-19 causes major changes in day-to-day hospital activity due to its epidemiological characteristics and the clinical challenges it poses, especially in internal medicine wards. Therefore, it is necessary to understand and manage all of the implicated factors in order to maintain a high standard of care, even in sub-par circumstances.

Methods: This was a three-phase, mixed-design study. Initially, the Delphi method allowed us to analyze the causes of poor outcomes in a cohort of an aggregate of Italian COVID-19 wards via an Ishikawa diagram. Then, for each retrieved item, a score was assigned according to a pros/cons, opportunities/threats system. Scores were also assigned according to potential value/perceived risk. Finally, the performances of MCs (Medicine-COVID-19 wards) and MCFs (Medicine-COVID-19-free: Internal Medicine wards) units were represented via a Barber's nomogram.

Results: MCFs hospitalized 790 patients (−23.90% compared to 2019 Internal Medicine admissions). The main risk factors for mortality were patients admitted from local facilities (+7%) and the presence of comorbidities (>3: 100%, ≥5: 24.7%). A total of 197 (25%) patients were treated with non-invasive ventilation (NIV). The most deaths (57.14%) occurred in patients admitted from local facilities.

Conclusions: Medicine-COVID-19 wards show higher complexity and demand compared to non-COVID-19 ones and they are comparable to subintensive therapy wards. It is necessary to promote the use of NIV in such settings.

334 / #O036

AN INTEGRATED EVALUATION OF CLINICAL INSTABILITY AND CLINICAL COMPLEXITY FOR ACUTE MEDICAL PATIENTS' MANAGEMENT

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Background and Aims: Early warning scores, as NEWS, have been recommended to detect patients at risk of clinical deterioration, but they are not adequate to define clinical complexity, not exclusively related to unstable conditions. Clinical Complexity Score (CCS) is an experimental score to quantify the burden of each patient according to the clinical relevance of any active pathology. The aim of this study is to analyse performances of NEWS and CCS in acute medical patients.

Methods: 1598 consecutive patients admitted in an Acute Medical Unit (AMU) have been considered. Clinical characteristics, main diagnoses, NEWS on admission, in AMU time-of-stay, CCS, destination wards including high-intensity (HI) transfers and in-hospital mortality were recorded and entered in a backward stepwise logistic regression analysis.

Results: Out of 1598 patients included, 18% (289) had a NEWS≥5 and 13% (207) had a CCS ≥4. Patients transferred to HI-wards had higher NEWS, 4[0-13] than no-HI transfers 2[0-13], p<0.001, without differences in CCS (1[0-9] vs 1[0-10], p=0.525). Patients transferred to Internal Medicine ward had higher CCS (≥4 in 17.8%) than other wards' transfers (≥4 in 4.4%, p<0.001) without differences in NEWS (2[0-13] vs 2[0-13], p=0.167). NEWS but not CCS was relevant to HI transfers (OR 1.78, 95% CI 1.09-2.92, p<0.05) while both NEWS and CCS were relevant to in-hospital mortality (OR 2.72, 95% CI 1.72-4.29, p<0.0001 and OR 2.81, 95% CI 1.70-4.66, p<0.00001, respectively).

Conclusions: An integrated evaluation of clinical instability and clinical complexity supports a patient-centred and problem-oriented approach to optimize a global acute medical patients' management.

458 / #O037

DELAYED CANCER DIAGNOSIS AFTER HEALTH EMERGENCY IN A QUICK DIAGNOSIS UNIT

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Background and Aims: Quick Diagnosis Unit (QDU) is a form of rapid access to hospital diagnostic resources that has proven useful in the early detection of cancer. However, the effect of the COVID-19 pandemic on its access has not been well studied. Our objective was to evaluate the impact of the pandemic on the processes management in the QDU.

Methods: Retrospective descriptive study of patients attended in a QDU 1 year before and 1 year after the first lockdown in Spain for COVID-19 (03/14/2020 - 06/21/2020). Demographic, clinical and management variables were collected. The diagnosis of malignancy and the time to diagnosis were compared and significance was established at p<0.05.

Results: A total of 234 patients were collected, 153 in the year before the first COVID-19 lockdown and 81 in the year following. The mean age was 63 years, majority of women (55.6%). Most of the medical cases came from the Emergency Room (70.9%) and

 DOI: 10.12890/2022_V9Sup1

the most frequent reasons for consultation were anemia (12.8%), incidental space-occupying lesion (12.4%) and fever (10.7%). The mean time to diagnosis was longer after the first quarantine than before (51.2 days vs. 41.8 days, respectively). The proportion of patients with a final cancer diagnosis was higher after lockdown (30.9%, 25/81) than before (22.7%, 34/153) (p=0.206).
Conclusions: Patients referred to QDU after the onset of the pandemic have higher rates of malignancy and they need more time for diagnosis. The health emergency has meant a break in the chain of care in the diagnosis of cancer that must be urgently guaranteed.

1571 / #O038

A PSEUDO-RANDOMIZATION APPROACH TO THE ANALYSIS OF THE ASSOCIATION BETWEEN HOSPITAL LENGTH OF STAY AND READMISSION RATE AT 30 DAYS

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Background and Aims: Re-admissions are a well-known major problem that influence hospitals and internal medicine (IM) departments globally. This study sought to examine the associations between length of hospital stay in different IM departments and related 30-day readmissions rates.
Methods: This retrospective cohort study includes all patients over 18 years old, who were admitted to Soroka University Medical Center's (SUMC) emergency department (ED) and hospitalized in a pseudorandom manner to one of seven IM departments between January 2015 to December 2018. Included were patients with one of the following diagnoses: fever, COPD, pneumonia, anemia and heart failure. We used a mixed logistic regression model with length of stay (LOS) as the main nondependent variable and readmission at 30 days as the outcome variable. An attributable admission rate was assessed by calculation of the delta between the observed and expected adjusted readmission rates.
Results: The cohort comprised a total of 9,564 patients with an overall 13,386 hospitalizations, 56.1% were male, and 85.3% were above the age of 45. The overall mean LOS was 4.1 (±2.24) days and the overall 30 days re-admission rate was 23.5%, IM B had the lowest LOS of 3.67 (±1.91) days and the highest re-readmission rate with 26.5%. Overall, an increase of approximately one day in the LOS is associated with a 30 days readmission rate decrease of up to 4%.
Conclusions: Our large cohort showed a significant association between LOS and 30 days rehospitalization. Every increase in one day of hospital LOS correlates with a 4% reduction in readmissions.

2631 / #O039

PATIENT SAFETY ROUNDS IN INTERNAL MEDICINE. FIVE YEARS EXPERIENCE IN A TEACHING HOSPITAL

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Background and Aims: Patient safety is the absence of injuries related to healthcare. Patient safety rounds and incident analysis have been shown to improve thealthcare complications. The objective of this study is to describe the results after five years of safety rounds in Internal Medicine Unit
Methods: We reviewed the patient safety rounds carried out from January 1, 2017 to December 31, 2021 in the Internal Medicine Unit of Hospital Universitario Fundación Alcorcón. The rounds are multi-professional with staff doctors, medical residents, and nurses..Reported incidents are analyzed.
Results: From January 1, 2017 to December 31, 2021, 31 safety rounds were carried out and 129 safety incidents were analyzed. Most incidents were considered as potentially avoidable (90%). Most frequent incidents were those related to high-risk drugs (37%) and care (29%), followed by wrong clinical assessment (19%), shift transitions (11%) and technical instrumentation (4%). Most frequent drugs involved in the incidents were: anticoagulants (42%), drugs affecting the cardiovascular (antiarrhythmics, hypotensives, diuretics), and central nervous system (opiates, benzodiazepines and other psychoactive drugs), followed by antibiotics and hypoglucemic drugs. As a consequence of the analysis a number of measures were implemented: updated treatment protocols, improved communication between units and on-call shifts, changes in the electronic prescription (alerts, double checks, automatic prescription recommendations, setting maximum doses) as well as formative clinical sessions.
Conclusions: The most frequently encountered incidents are those related to drugs and care. High-risk drugs have been implicated in the majority of medication-related incidents. Safety rounds have helped in improving treatment and communication protocols to increase patient safety.

DOI: 10.12890/2022_V9Sup1

104 / #O040

PREVALENCE OF ENDOCRINE AND EXOCRINE INSUFFICIENCY IN TYPE 1 AUTOIMMUNE PANCREATITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background and Aims: Type I autoimmune pancreatitis (AIP) is a rare form of pancreatitis that shows a brilliant response to glucocorticoids (GCs). Relapses are common and multiple courses of GCs are often required, with detrimental effects on glycemic control. To date, the prevalence of endocrine and of exocrine insufficiency at the time of diagnosis in AIP is unclear. To address this question, we performed a systematic review and meta-analysis.
Methods: The available databases were searched to identify studies reporting the incidence of endocrine and exocrine insufficiency in AIP patients. Studies involving ≥5patients were selected. In case of duplicated studies, the most recent or the one with the biggest N were chosen. Pooled effects were calculated using a random-effect model and expressed in terms of prevalence.
Results: Fifty-four cohort studies met inclusion criteria and 2197AIP patients were included. At the time of AIP diagnosis, a total of 649 cases of diabetes (29.5%) were identified. The pooled prevalence rate of diabetes was 32% (95% CI 0.26-0.39) with high heterogeneity (I^2=90). The pooled prevalence of exocrine insufficiency was 45% (95%CI 0.40-0.48). A higher pooled prevalence of diabetes was reported in study from Eastern countries (36%, 95% CI 0.30-0.40) compared to Western countries (24%, 95 %CI 0.20-0.28). Of note, studies performed before the publication of ICDC criteria (2011) reported a higher prevalence of diabetes (43%, 95%CI 32-53).
Conclusions: In this meta-analysis, we found that a large proportion of patients with AIP (>30%)display concomitant diabetes and exocrine insufficiency at the time of AIP diagnosis. Further studies on long-term outcomes are warranted to assess the impact of GCs on endocrine and exocrine pancreatic function.

401 / #O041

FAMILIAL MEDITERRANEAN FEVER AND THE RISK FOR FEMALE INFERTILITY

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Background and Aims: Familial Mediterranean Fever (FMF) is a known risk factor for female infertility. However, literature regarding the magnitude of the risk incurred is mixed. We aimed to estimate the risk for female infertility in patients with FMF compared to matched controls.
Methods: We used the Clalit Health Services Chronic Disease Registry to extract all female FMF patients documented between 2000-2016 and age- and sex-matched controls in a 1:1 ratio. Patients without any colchicine prescription or born outside of Israel were excluded. Logistic and Cox regression models were used to estimate the risk for female infertility.
Results: Overall, 6218 female patients were included (3109 FMF patients). The median follow-up was 32 (IQR 21 to 47) years. Infertility was diagnosed in 266 (8.6%) FMF patients and 162 (5.2%) controls. FMF patients had an OR of 1.7 (95% CI 1.39 to 2.09) for female infertility compared to controls. FMF patients had an HR of 1.66 (95% CI 1.36 to 2.01) for female infertility compared to controls.
Conclusions: This study found that FMF was associated with a significant increase in the risk for female infertility. This finding should be taken into consideration when treating female FMF patients.

1207 / #O042

THE LONG TERM EFFICIENCY AND SAFETY OF BOSENTAN IN THE TREATMENT OF DIGITAL ULCERS IN SYSTEMIC SCLEROSIS

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Background and Aims: Recurrent digital ulcers (DU) are a redoubtable complication of systemic sclerosis (SSc). The aim of this study is to investigate whether bosentan, a dual endothelin receptor antagonist, reduces the incidence of new DU, reverses the abnormal capillaroscopic patterns and improves the hand function. Moreover, the study monitors the most common side-effects encountered in practice.
Methods: This was a longitudinal, retrospective, observational case-control study conducted over a 6-year period, involving 100 patients with SSc. The case group included 80 patients with SSc and active or recurrent DU, despite having a good compliance to vasodilator therapy. The control group had 20 patients with SSc and recurrent DU, associated with other autoimmune disease or not consenting to Bosentan treatment.
Results: Mean course of bosentan was 25.96 months (±19.4 months). Patients receiving bosentan had a 70% decrease in the mean DU in the first 6 months (P<0.001), with a 92.75% reduction noticed after 36 months (P<0.001). In the control group, a 130% raise in mean DU was noticed in the first 6 months. Visual Analogue Scale (VAS) for Raynaud's Phenomenon and VAS for DU showed 50% improvement in the first 6 months of treatment (P<0.001). Health Assessment Questionnaire (HAQ) showed a 60%

 DOI: 10.12890/2022_V9Sup1

improvement in hand function over the same period (P<0.001). No significant progression of microangiopathy was noticed in patients taking Bosentan. For 12% of the patients, Bosentan was permanently stopped due to severe side effects.
Conclusions: Bosentan may be effective in preventing new DU, delaying microangiopathy progression, improving hand function and the quality of life.

1988 / #O043

THE PREDICTORS OF CARDIOVASCULAR COMORBIDITY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background and Aims: The objectives of the study were to assess the association of the markers of inflammation and coexisting cardiovascular pathology in patients with rheumatoid arthritis.
Methods: 150 patients with RA (diagnosis according to ACR / EULAR) from the rheumatology department with the mean age of 42.8±9; 84 % ACCP – positive patients, activity on DAS (Disease Activity Score) 28 II, III; 75 % female with the disease duration for about 10-15 years were enrolled in the trial. We assessed the level of proinflammatory cytokines (IL-1, IL-6, TNF-α) with the use of ELISA, hs CRP, lipoprotein A, cholesterol level.
Results: The correlative and regressive analysis of the results showed the statistically significant moderate association of cholesterol, LDL, SBP, lipoprotein A and markers of inflammation IL-1, IL-6, TNF- α, DAS 28: p=0.610 (p<0.01), p=0.495 (p<0.01), p=0.633 (p<0.01), p=0.741 (p<0.01), p=0.522 (p<0.01), p<0.510 (p<0.01) accordingly. The serum level of lipoprotein A was significantly correlated with the concentration of hs-CRP in patients with RA p=0.677 (p<0.01).
Conclusions: The severity of the inflammatory process in patients with RA according to the index of activity on DAS 28, hs-CRP, proinflammatory cytokines is associated with the increased risk of cardiovascular comorbidity. Lipoprotein A level can be considered as an early predictor of associated cardiovascular pathology in patients with rheumatoid arthritis.

616 / #O044

IDENTIFICATION OF SERUM MICRO-RNAS IN EARLY OSTEOARTHRITIS

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Background and Aims: Osteoarthritis (OA), the most prevalent musculoskeletal disease, is a challenging disorder with as yet no available disease modifying drug nor cure. Identifying persons with early OA of the knee (KOA), is imperative as it provides a “window of opportunity” to retard progression and change the course of the disease process. Several proinflammatory and microRNAs (miRNAs) are involved in OA pathogenesis. Accordingly, we investigated serum miRNAs, IL-8 and IL-17 levels in subjects with early KOA and further assessed and compared the expression profile of miRNAs, and level of serum IL-8 and IL-17 in subjects with early- and late–stage KOA.
Methods: Fifty KOA patients were divided into early - and late-stage groups according to the WOMAC score and Kellgren-Lawrence (KL) Grade: early stage(WOMAC score ≤60; KL Grade: I/II) and late stage (WOMAC score ≥81;KL Grade: III/IV). Blood and synovial fluid samples were collected and expression of miRNAs was determined by real-time RT-PCR. Serum IL-17 and IL-8 levels were determined by ELISA.
Results: Serum and synovial miR-155-5p was significantly increased in the group of early-stage KOA compared with both late-stage KOA and controls. Receiver-operating characteristic curve of microRNA -155-5p expression levels showed that miRNA-155-5p expression levels can significantly discriminate between patients with and without OA at a cut off level >1.88. Serum IL-8 was significantly higher in early–stage KOA compared to controls.
Conclusions: Upregulation of miR-155-5p in serum and synovial fluid and increased serum IL-8 levels in early-stage KOA can be both useful biomarkers for early diagnosis of OA and potential therapeutic targets.

2112 / #O045

BIOPSY OF THE TEMPORAL ARTERY FOR THE GIANT CELL ARTERITIS

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Background and Aims: Giant cell arteritis (GCA) is a granulomatous vasculitis of large arteries in particular the aorta and its cranial branches. Biopsy of the temporal artery (BTA) might show some histological abnormalities. This study compares the

 DOI: 10.12890/2022_V9Sup1

epidemiological, clinical, and biological features of GCA using BTA results.
Methods: That was a retrospective study initiated in a department of Internal Medicine over 11 years [2009-2020]. All patients followed for GCA based on the American college of rheumatology 1990 diagnostic criteria were included.
Results: Seventy-six patients were included of whom 70 had a BTA. That showed histological signs suggestive of GCA in 36% (Group 1) of cases and was negative in the rest (Group 2). Comparing the two groups, there was masculine predominance in the first group and feminine predominance in the second. Clinical manifestations consisted of more general signs in Group 1 (prolonged fever, weight loss, asthenia) (88% vs 82%) and more pulmonary affections. They also had more affected temporal arteries (induration, torturous and sensitive) (64% vs 22%). Group 2 had more extra-temporal manifestations, rhizomelic pseudopolyarthritis (67% vs 36%) (p=0.014), ocular affections (24% vs 16%) and neurological manifestations (11% vs 8%). Biological inflammation syndrome was more frequent in the Group 1 (100% vs 93%) with more accelerated ESR (92% vs 84%)) and elevated CRP (p=0.011). Treatment was corticosteroids for all patients associated with methotrexate in 8% vs 16% and with favorable response in 84% vs 80%.
Conclusions: The positivity of the BTA was more likely in patients with clinically impaired temporal arteries. But a negative BTA might be due to differences in the biopsy proceeders or to extra-temporal formes of GCA.

1920 / #O046

PREVALENCE OF SARCOPENIA AND HIS IMPACT ON METABOLIC AND CARDIOVASCULAR ALTERATIONS IN A COHORT OF NON-CIRRHOTIC MAFLD PATIENTS

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Background and Aims: Metabolic dysfunction-associated fatty liver disease (MAFLD) is defined by hepatic steatosis associated with metabolic comorbidities. Sarcopenia is a predictor of cardiovascular disease (CV) and it has been described in liver diseases, mainly cirrhosis. Bioelectrical impedance analysis (BIA) non-invasively diagnoses sarcopenia by skeletal muscle index (SMI). Aim: to define prevalence of sarcopenia by BIA and associated factors in non-cirrhotic MAFLD patients.
Methods: 316 non-cirrhotic MAFLD patients were enrolled. Anthropometric parameters (BMI and waist circumference-WC), sarcopenia by BIA (SMI ≤10.75/6.75kg/m^2 men/woman), intima-media thickness (IMT) by carotid Doppler ultrasound (>0.9mm), epicardial fat thickness (EFT) by echocardiography (≥9.5/7.5mm in men/women) were evaluated. At Fibroscan®, fibrosis was diagnosed by liver stiffness measurement (LSM)≥7.0/6.2kPa (M/XL probe).
Results: Mean age was 52 ys, 64% male. Sarcopenia was present in 34% of the cohort. At multivariate analysis male sex (OR 13.9, CI 95% 3.5-55.6) and IMT (OR 6.6, CI 95% 1.9-23.3) were independently associated with sarcopenia; on the other hand, BMI (OR 0.3, CI 95% 0.2-0.5) and WC (OR 0.7, CI 95% 0.6-0.9) resulted inversely correlated with the presence of sarcopenia. Conversely, no difference in prevalence of fibrosis by LSM was observed between sarcopenic and non-sarcopenic patients.
Conclusions: Sarcopenia is highly prevalent in young, male non-cirrhotic MAFLD patients.In presence of metabolic comorbidities and fatty liver, sarcopenia is associated with subclinical atherosclerotic damage, despite lower visceral obesity and irrespective of severity of liver fibrosis.Therefore, in patients with MAFLD physicians must emphasize the central role of nutrition and physical activities to prevent loss of skeletal muscle and progression of CV damage, especially in lean subjects.

2657 / #O047

TOXIC REACTION TO BUPRENORPHINE

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Case Description:
A 90-year-old man was admitted to the ED due to jaundice, choluria, anorexia and generalised myalgia lasting 3 days. He was being studied in consult due to suspected multiple myeloma, and due to severe musculoskeletal pain, transdermal buprenorphine was added to his medication the month before, with dosage increase the day before the start of symptoms. He had cholestasis with 8.46 mg/dL of total bilirubin, 5.33 mg/dL conjugated bilirubin, AST 206 UI/L, ALT 195 UI/L, ALP 1523 UI/L and GGT 1338UI/L. Acute phase reactants were not elevated and no other analytical changes were noted. Abdominal echography showed no dilation of the biliary tract and no hepatic masses.
Clinical Hypothesis:
Acute hepatitis develops due to impaired synthesis or increased liver damage in people without pre-existing liver disease. Viral or drug-induced hepatitis are the most common causes, but extensive workup is needed to exclude a multitude of aetiologies.
Diagnostic Pathways:
During further study, other causes were promptly excluded, namely viral hepatitis (negative for Hepatitis A, B, C, CMV or EBV) and neoplastic causes, with CT scan revealing no liver changes suspect for primary or metastatic neoplasm. After discussion with Gastroenterology, we considered the possibility of toxic aetiology, with prompt removal of buprenorphine from his treatment. After drug cessation, analytical cholestasis improved and completely resolved after 1 week. Due to recovery, liver biopsy was not done.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points:
Opioid-induced hepatitis is relatively common, particularly in intravenous therapy. However, transdermal opioid-induced hepatitis is very rare and of unknown frequency in clinical studies, with very rare mentions of transdermal buprenorphine having this effect.

DOI: 10.12890/2022_V9Sup1

2380 / #PD001

TARGETCALC - A MEDICAL CALCULATOR FOR HELPING CARDIOVASCULAR DISEASE MANAGEMENT

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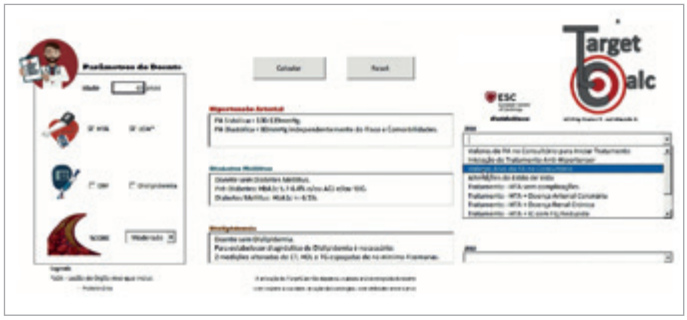
Background and Aims: Medicine has become more personalized than ever. With technology innovation, we have informatic algorithms supporting us to understand patients specificities. This project aims to develop an algorithm for cardiovascular disease (CVD) management in a medical calculator format.

Methods: The first step was to resume the relevant information from ESC Guidelines for CVD Prevention, Hypertension, Diabetes and Dyslipidemia. The second step aimed to project an algorithm to help evaluate how well controlled or not those pathologies are, and what improvements need to be done. The third step was to build a calculator in a Excel® worksheet using Visual Basic Language® for programming. Targetcalc was tested in primary health care and afterwards in an Internal Medicine consultation.

Results: The calculator we built was named TargetCalc because it invokes the purpose to help in the determination of those target values. In compromise to occupy the least time possible in the consultation routine, the physicians only need to introduce patient's age, select their pathologies (Hypertension, Diabetes and/or Dyslipidemia), CVD Risk and if organ's damage is present. After that, TargetCalc integrates all that information and shows up what the target values are for the patient, in terms of Blood Pressure, HbA1c value, and the LDL range. Moreover, Targetcalc suggests therapeutic modifications to achieve those targets.

Conclusions: TargetCalc wants to assume itself as a tool to support clinical decisions, thus contributing to a more individualized medicine. Several improvements can be considered, such as adding Pro-BNP values, very important in CVD's patients following.



#PD001 Figure 1.

64 / #PD002

HOW WELL DO UK INTERNAL MEDICINE TRAINEES INTERPRET ELECTROCARDIOGRAMS? PERSPECTIVES FROM A LARGE TEACHING HOSPITAL

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Background and Aims: Electrocardiography interpretation is a core clinical skill for all doctors participating in emergency medical services. Considering most ECGs performed on admission to acute medical units in the UK are initially reviewed by junior doctors and the need for life-threatening pathology to be diagnosed or excluded, further understanding of level of competency in interpretation and factors associated with this are needed.

Methods: This was a cross-sectional descriptive analytical study. The data were collected using a structured questionnaire comprised of two sections, the first section contained questions related to confidence, previous ECG learning and factors thought to be associated with ECG interpretation competence, the second section was an ECG quiz of ten 12-lead ECGs of varying complexity for interpretation assessment. Descriptive and inferential statistics were utilised for data analysis.

Results: 62 doctors from Foundation year 1 (intern) to Registrar level working in acute medicine across three hospitals participated. The mean overall percentage for the ECG quiz was 45%. No association was found between junior doctor training grade and overall score on the ECG assessment. Undergraduate and postgraduate teaching strategy also did not impact competence.

 DOI: 10.12890/2022_V9Sup1

Only 9.7% reported themselves as "confident" interpreting ECGs. There was a trend towards higher levels of competency among those who felt they had undergone sufficient ECG teaching and those who sought regular feedback from other clinicians.
Conclusions: This study demonstrated low overall levels of ECG interpretation competency among junior doctors in a large acute teaching NHS trust regardless of grade. Factors associated with competency remain unclear.

270 / #PD003

SIMPLE, LOW-COST METHODS OF IMPROVING HEART FAILURE DISCHARGE SUMMARIES

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Background and Aims: Discharge summaries are an integral form of communication between primary and secondary care. In heart failure patients, effective communication is paramount in co-ordinating ongoing care and preventing re-hospitalization after discharge.
Methods: Our study aimed at initially evaluating and then improving the quality of discharge summaries for patients with heart failure discharged from Manchester Royal Infirmary over a period of three months from April 2021 to July 2021. Three elements were used to assess the quality of discharge summaries including a)documentation of need for timely follow up within 1-2 weeks b)Imaging evidence of heart failure c)documentation of discharge weight. Interventions to improve discharge summaries were a teaching session for junior doctors and a poster situated on the cardiology wards with the salient points for heart failure discharge summaries.
Results: The baseline evaluation showed no patients discharged from Manchester Royal Infirmary had their discharge weight documented and only 50% had the need for follow up within 1-2 weeks communicated. Following the interventions, in July discharge summaries produced from cardiology wards (exposed to poster) were six times more likely to include discharge weight (50% vs 8.3%) and almost twice as likely to have the need for follow up within the specified timeframe documented (100% vs 58.3%). Imaging evidence of heart failure was well documented from the outset and this showed no significant difference between the two groups.
Conclusions: Simple, inexpensive interventions such as an induction teaching session and a strategically situated poster were effective in improving the quality of heart failure discharge summaries in our institution.

1094 / #PD004

EFFECT OF RIVAROXABAN AND DABIGATRAN ETEXILATE ON THE MRNA EXPRESSION OF ANTI AND PRO-INFLAMMATORY GENES IN HUMAN ENDOTHELIAL CELLS DAMAGE BY 25-HYDROXYCHOLESTEROL

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Background and Aims: The connection between coagulation and inflammation is of paramount importance, not only in thromboembolic events, but also in atherosclerosis. Non-VKA oral anticoagulant (NOACs) may reduce the incidence of cardiovascular events, cerebral ischemia, thromboembolic events, and atherosclerosis. 25-hydroxycholesterol (25-OHC) is a type of oxidized cholesterol, which participates in chronic inflammation, vascular proliferation, and development of atherosclerosis. The aim of the study was to assess the effect of rivaroxaban and dabigatran etexilate on the mRNA expression of anti-inflammatory TGF-β, IL-37 and proinflammatory IL-18, IL-23 cytokines in endothelial cells damaged by 25-OHC.
Methods: HUVECs were stimulated with 25-OHC (10 μg/ml), rivaroxaban (100 ng/ml, 500 ng/ml), dabigatran etexilate (100 ng/ml, 500 ng/ml), 25-OHC+ rivaroxaban and 25-OHC+ dabigatran etexilate. The mRNA expression of TGF-β, IL-37,IL-18 and IL-23 was analyzed in the real time PCR.
Results: 25-hydroxycholesterol decreased TGF-β, IL-37 and increased IL-18, IL-23 mRNA expression in endothelial cell as compared to unstimulated control($p<0.05$). Following stimulation of HUVECs with rivaroxaban and dabigatran etexilate significantly increased mRNA expression of TGF-β, IL-37 as compared to unstimulated control ($p<0.01$). In endothelial cells pre-stimulated with oxysterol, rivaroxaban and dabigatran etexilate increased mRNA expression of TGF-β, IL-37 and decreased mRNA expression of IL-37 and IL-18 as compared to oxysterol ($p<0.01$).
Conclusions: In conclusion, our finding suggests that rivaroxaban and dabigatran etexilate inhibits the inflammation caused by 25-OHC.

 DOI: 10.12890/2022_V9Sup1

931 / #PD005

PATIROMER POST-MARKETING ACTIVE PHARMACOVIGILANCE IN A CENTRAL HOSPITAL

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Background and Aims: Patiromer is a gastrointestinal cation exchanger, binds potassium in exchange for calcium, mainly in the distal colon. Such therapy can be used to treat hyperkalemia, frequently in patients with kidney disease and or heart failure. Patiromer was recently approved by EMA and included in an active pharmacovigilance program. We aim to assess Patiromer safety profile.

Methods: Retrospective, observational study. Population: patients receiving patiromer between November 2020 and October 2021, to whom active pharmacovigilance was applied prospectively, as recommended. Adverse drug reaction (ADR) were reported to the National Pharmacovigilance System (NPS).

Results: A patiromer Active Pharmacovigilance Program was applied to 31 patients, 23 males (74.2%) with an average age of 68 ± 13.96 years. We reported 15 ADR to our NPS that occurred in 12 patients: gastrointestinal disorders (diarrhoea (n=5), flatulence (n=1), hypomagnesemia (n=4), anaemia (n=1), CKD worsening (n=1) and metabolic acidosis (n=3). Metabolic acidosis resulted in the hospitalization of 2 patients and a total of 9 patients discontinued Patiromer after ADR detection.

Conclusions: The inclusion of innovative drugs in active surveillance programs provides real world data, allowing their safety profile study in real life setting. As of June 2021, the WHO has received 10 ADR reports of metabolic acidosis associated with patiromer use, which includes the 2 reported by this central hospital. While this is an unexpected ADR, these reports raise concerns and may lead to signal management and new safety recommendations for patiromer.

636 / #PD006

ARTIFICIAL INTELLIGENCE FOR PANDEMIC CONTAINMENT: A NEW ERA FOR EMERGENCY MEDICINE?

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Background and Aims: During the recent pandemic caused by severe respiratory acute syndrome Coronavirus 2 (SARS-CoV-2), emergency physicians had to define the appropriate dispositions and treatments for patients affected by Coronavirus disease 2019 (COVID-2019), taking into account the patient's demand and the consumption of health resources. In order to support the physicians in clinical decisions, we managed to evaluate a machine learning based approach for prognostic prediction of SARS-CoV-2 infection.

Methods: From April 15, 2020 to February 15, 2021 we conducted a observational cohort study of patients admitted to three hospitals of Lazio-Abruzzo area, with SARS-CoV-2 positivity to RT-PCR assay. Demographic variables and biochemical parameters were collected at first medical presentation in Emergency Department (ED). We applied machine learning models for the prediction of three different clinical events: disease severity at seventh day, mortality during hospitalization and safe discharge.

Results: The dataset of 496 patients has been split in training cohort and validation cohort. Prediction model for disease severity demonstrated accuracy of 89%, specificity of 94%, sensibility of 68%; prediction model for mortality demonstrated accuracy of 84%, specificity of 62%, sensibility of 89%; prediction model for safe discharge demonstrated accuracy of 86%, specificity of 35%, sensibility of 97%.

Conclusions: Machine learning is suggested to be a promising approach for clinical decision support in emergency care. The results of our study are consistent with literature evidences, especially we propose a prediction model for severe COVID-19 and mortality during hospitalization. Our results highlight the role of artificial intelligence in emergency care.

 DOI: 10.12890/2022_V9Sup1

1289 / #PD007

METFORMIN ASSOCIATED LACTIC ACIDOSIS: A CASE SERIES FROM A TERCIARY CARE CENTER

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Background and Aims: Metformin-associated lactic acidosis (MALA) carries a high mortality rate. Metformin increases plasma lactate levels in a plasma concentration-dependent manner by inhibiting mitochondrial respiration predominantly in the liver. Elevated plasma metformin concentrations (as occur in individuals with renal impairment) and a secondary event that further disrupts lactate production or clearance are typically necessary to cause MALA.

Methods: We present a case series of a retrospective nature that analyses the clinical profile and outcomes of patients admitted in a Portuguese Intensive Care Unit with the diagnosis of MALA during the year of 2020.

Results: 8 patients were included, with a mean age of 75 years. Six patients (75%) presented with symptoms of nausea, vomiting and/or diarrhoea, and seven showed signs of dehydration, one patient had decompensated cirrhosis and one presented with septic shock from a urinary origin. Patients had evidence of severe acidosis (mean pH 7.06; mean anion gap, 20; high lactate levels (mean 12.35 [min 3.28, max 2.,2] mmol/L); and acute kidney dysfunction (mean creatinine level 3.92 [min 1.05, max 9.7] mg/dL). 5 patients (62.5%) required invasive mechanical ventilation, and mean ICU length of stay was 5 days. 7 patients required dialysis and vasopressor support and one needed surgical care. 4/8 patients (50%) died. All patients had suspected concomitant infection and were on broad spectrum antibiotics.

Conclusions: MALA is unfrequent cause of admission in ICU, clinical presentation varies but most commonly entails gastrointestinal symptoms. Early renal replacement therapy for acute renal failure can result in rapid reversal of the acidosis and good recovery.

1779 / #PD008

PERFORMANCE OF AGE-ADJUSTED D-DIMER IN THE EXCLUSION OF PULMONARY EMBOLISM - A RETROSPECTIVE UNICENTRIC STUDY

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Background and Aims: Fixed D-dimer (Dd) cut-off is suboptimal for Pulmonary Embolism (PE) rule out as it leads to Computed Tomography Pulmonary Angiogram (CTPA) overuse. We evaluated the performance of age-adjusted Dd in ruling out PE in patients with low pre-test probability.

Methods: Chart-review of patients submitted to CTPA for PE in the Emergency Department (ED) of Centro Hospitalar Lisboa Central in 2019. Modified Wells Score (WS) was calculated, dividing patients in 2 tiers: PE unlikely (WS 0-4); PE likely (WS ≥5). Age-adjusted DD cut-off – age x10 in patients aged ≥50 – was calculated inthe PE unlikely tier. The number of confirmed PE was determined in the age-adjusted negative and positive DD groups. Negative predictive value (NPV) and negative likelihood ratio (-LR) were calculated.

Results: 343 patient files were reviewed. 33 were excluded because no Dd was evaluated. Of 310 files included, 230 were in the PE unlikely tier: 77 had negative age-adjusted Dd; 132 had positive age-adjusted Dd; 21 patients were aged less than 50 years (age-adjusted Dd couldn't be used). In the negative age-adjusted Dd group there were 4 confirmed PE, compared to 31 confirmed PE in the positive age-adjusted Dd group. The NPV for age-adjusted DD was 92.5% and the -LR was 0.27.

Conclusions: Our findings are in agreement with existing literature in regards to the performance of age-adjusted DD. The 4 confirmed PE inthe negative age-adjusted DD were at segmental/subsegmental level, suggesting lower NPV for smaller PE. Using an age-adjusted DD cut-off it's possible to reduce the use of CTPA in the ED.

2393 / #PD010

ASSOCIATIONS BETWEEN PHOSPHATE LEVELS AND HOSPITAL MORTALITY IN PATIENTS RECEIVING MECHANICAL VENTILATION

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Background and Aims: Phosphate imbalance at hospital admission is an independent risk factor for hospital mortality. Since phosphate concentrations change continuously throughout hospitalization, it is unclear which of the various available phosphate measures

DOI: 10.12890/2022_V9Sup1

are most clinically important for predicting hospital mortality.
Methods: All adult patients receiving mechanical ventilation at a single university-affiliated medical center (December 1, 2018–November 30, 2019) were enrolled. Phosphate concentrations measured within 24 h of hospital admission (iP), the difference between maximum and minimum phosphate values throughout hospitalization (ΔP), and arithmetic mean of phosphate concentrations throughout ICU admission (Pmean) were determined. We investigated these measures with respect to their relationship with hospital mortality.
Results: In total, 175 patients were considered; 61.7% were male, and the mean age was 66.7 years. The hospital mortality rate was 38.9%. The most common primary diagnosis was respiratory failure (28.0%). In multivariate logistic regression analyses, odds ratios for hospital mortality in association with ΔP and P-mean values were 1.56 and 2.13, respectively. In receiver operating characteristic curve, ΔP and P-mean each showed fair predictive power for hospital mortality. A graph of log odds values constructed to evaluate relative risks revealed that increased Pmean and ΔP concentrations were each associated with increased hospital mortality risk.
Conclusions: ΔP and P-mean, but not iP, values were significantly associated with hospital mortality in critically ill patients. These findings show that it is important to maintain appropriate phosphate concentrations, while minimizing fluctuations in levels, throughout hospitalization.

912 / #PD011

FOLLOWING A CLINICAL PATHWAY FOR DECOMPENSATED HEART FAILURE IN THE HOSPITAL AT HOME: A STRATEGY FOR IMPROVING SHORT-TERM EVOLUTION.

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Background and Aims: Heart failure (HF) is a very prevalent disease among internal medicine patients and is the cause of significant morbidity and mortality, so it is necessary to look for strategies to improve the management of these patients. The goal of this study is to evaluated the impact on readmissions, patients self-care and mortality of a clinical pathway for decompensated heart failure in the Hospital-at-home (HaH).
Methods: This is a prospective, quasi-experimental study with patients admitted to HaH and to conventional hospitalization (CH) for decompensated HF. In HaH a clinical pathway developed following the latest international guidelines for the management of HF is applied. The results are compared in terms of mortality, readmissions and self-care after discharge between HaH group and CH group.
Results: A total of 64 patients were included, 34 in HaH and 30 in CH. The groups were homogeneous in terms of baseline characteristics of the patients and there were no differences in drug treatment during admission. In HaH group, it was observed a lower rate of readmissions in the first month after discharge (3.1% vs 32.1% respectivelly with p=0.014, OR 14,684; 95% CI 1,722-125,239), a lower combined rate of readmissions and mortality in the first month (8,8% vs 36,6% respectively with p=0.012 OR 5,982; 95% CI ;1,477-24,224) and an improvement in self-care compared to the CH group (p=0.000) being the differences statistically significant.
Conclusions: Using a clinical pathway in heart failure in hospital at home reduces readmissions in the vulnerable phase and improves patients self-care after discharge.

549 / #PD012

MANAGING HUMAN FACTORS THAT INFLUENCE THE CARE OF MEDICAL BOARDING PATIENTS: IMPROVING THE QUALITY AND CONSISTENCY OF DISCHARGE COMMUNICATION WITH PRIMARY CARE.

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Background and Aims: Boarding patients to outlying wards is a necessity to cope with flow and capacity pressures. It leads to unfamiliarity and hinders care processes including the completion of discharge letters (IDL), which impacts on the continuity of care in the community. We focused on the implementation of a specialized IDL structure (IDLGM) for medical patients discharged from outlying wards.
Methods: We performed three PDSA cycles: (1) Introduction of a prompt to structured ward round templates for medical boarders, appearing in electronic patient records (EPR); (2) Incorporation of this prompt into the post-take ward round templates; (3) Encouraging template use. The outcome measure was the communication of key points crucial for Primary Care. The process measure was the use of IDLGM.
Results: 660 consecutive IDLs were included. The mean proportion of IDLGM use were (mean (SD)): baseline (11.3 (9.9)); first intervention (30.9 (11.3)), second (56.7 (17)), and third (70.8 (15)). The prompt increased the IDLGM use by 11-fold, adjusting for training grade of the author and ward specialty, by logistic regression. IDLGM was associated with higher rate of communication of medicine changes: 99.0% vs 95.9%, reason for changes: 94.7% vs 69.4%, diagnosis: 100% vs 97.0%, GP action: 97.3% vs 50.8%, follow-up: 99.5% vs 91.5%. As a composite, 92.0% of IDLGM contained all these elements compared with 30.1% in other templates.
Conclusions: A structured template with clear guidance for its completion and promoting its use have resulted in a significant improvement in quality and consistency of the information

 DOI: 10.12890/2022_V9Sup1

communicated at discharge from boarding wards.

593 / #PD013

VARIABILITY OF BLOOD SAMPLING: CORRELATION WITH PATIENT PROGNOSIS IN INTERNAL MEDICINE DEPARTMENTS

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Background and Aims: Laboratory testing is an essential tool in modern medicine, accounting for approximately 3-5% of healthcare costs. However it is estimated that up to 30% of blood tests are superflous leading to significant unnecessary downstream health expenditures while causing significant discomfort to patients. Data is lacking on the utility of blood testing and its potential association with patient outcomes.
Methods: We assessed 69,450 patients hospitalized in Internal Medicine Departments (IMD) of a 1200 beds teaching hospital (2014-2019). We compared mean blood test utilization rate (BUR) per day of hospitalization between seven IMD admitting patients at random. The primary outcome was a composite of 30-day mortality and readmission. We applied quasi-Poisson regression twice, to estimate the adjusted BUR and outcome per department year with age, sex, sector, ICD-9 disease category, and Charlson's comorbidity index (CCI) as covariates.
Results: Demographic characteristics were similar among departments: age (66.9 (18.9) - 69.0 (17.6)), male (47.6% – 52.3%) and CCI (3.2 (2.9) -3.9 (3.5)). The adjusted annual BUR per hospitalization day ranged from 0.86 [CI, 0.83 – 0.89] to 1.32 [CI, 1.28 – 1.36] and composite outcome ranged from 14.8% [CI, 13.2 - 16.7%] to 21.2% [CI, 19.1- 23.0%]. There was no association between adjusted BUR and composite outcome (Spearman rho = 0.01, p = 0.9).
Conclusions: Despite a similar case mix, departments differ significantly in their blood testing policy. Higher intensity blood testing is not associated with 30-day mortality or readmission. Our study supports the contention that laboratory tests are occasionally unnecessary and do not result in improved outcomes.

943 / #PD014

A SINGLE-BLIND RANDOMIZED CLINICAL TRIAL FOR EVALUATION OF TECHNOLOGICAL CHALLENGES OF CONTINUOUS WIRELESS MONITORING IN INTERNAL MEDICINE: GREENLINE H-T STUDY PRELIMINARY RESULTS

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Background and Aims: Wireless vital parameter continuous monitoring (WVPCM) after discharge is compared to regular monitoring to provide data on the clinical-economic impact of complex patients (CPs) discharged from Internal Medicine Units of Ospedale dei Castelli, Lazio. Primary outcome: Major complications (MC) reduction. Secondary outcomes: Patients who reached discharge criteria within the 7th day from admission; difference in MC incidence at the conclusion of the standard telemonitoring/clinical monitoring phase, 5 and 30 days after discharge; and conditions predisposing to MC occurrence.
Methods: Open label randomized controlled trial with wearable wireless system that creates alerts on portable devices. Continuous glycemic monitoring is performed for patients with diabetes mellitus.
Results: There were 110 patients enrolled (mean age: 76.2 years). Comorbidity: Cumulative Illness Rating Scale CIRS-CI (comorbidities index): 3.93, CIRS SI (severity index): 1.93. About 19% scored a BRASS (Blaylock Risk Assessment Screening Score) ≥20 indicating need for discharge planning requiring step-down care. Globally, 48% of patients in the control group had major complications (27 out of 56 patients), in contrast to 22% in the intervention group (12 out of 54 patients).
Conclusions: Since WVPCM detects early complications during the post-discharge CPs monitoring, it increases safety and reduces inappropriate access to the Emergency Room, preventing avoidable re-hospitalizations.

89 / #PD015

IMPLEMENTATION AND COMPLIANCE WITH A WARD ROUND CHECKLIST IN A GENERAL INTERNAL MEDICINE WARD

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Background and Aims: An Internal Medicine ward round is a complex process that is crucial for patient safety. It involves

 DOI: 10.12890/2022_V9Sup1

decision making that can often seem rushed if not approached in a systematic manner. We aimed to analyse the compliance with ward round checklists that would serve as structured guidelines for medical staff.
Methods: We carried out 3 PDSA (plan, study, act, do) cycles with the aim of developing a checklist that offered structure to ward rounds whilst also achieving a high level of compliance. Throughout this process, we developed 3 different checklists, all of which included important indicators that are sometimes missed during ward rounds and can impact patient safety. These indicators included elements related to the patient's Treatment Escalation Plans, VTE prophylaxis, Medicines Reconciliation, Antibiotics, and Nutrition. Whereas the first checklist was more detailed, the second and third checklists were simplified and used mnemonics to facilitate implementation.
Results: The first checklist was applied to 34 patients and we found that it was correctly completed in only 26.4% of cases. The second checklist was applied to 31 patients and was correctly filled out in 64.5% of cases. The third and final checklist was applied to 20 patients and in 85% of cases it was completed in its entirety.
Conclusions: In conclusion, ward round checklists achieve higher compliance if presented in a simple way with visual cues. Further studies are needed in order to determine if the use of ward round checklists improve measures of patient safety.

684 / #PD016

IMPACT OF COVID-19 PANDEMIC ON IN-HOSPITAL MORTALITY IN NON-COVID PATIENTS

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Background and Aims: During the COVID-19 pandemic, the outpatient follow-up was compromised, challenging the chronic disease control and acute pathology referral, with hypothetic reflex in mortality. This study aims to adress the mortality in an "non-COVID" Internal Medicine (IM) ward in this peculiar time.
Methods: Observational retrospective study including the IM inpatient deceased population between March and December 2019 compared to the same period of 2020. Collected data consisted on patients' demographics and clinical characteristics.
Results: From the total of 1493 inpatients, 145 died- 70 in 2019 and 75 in 2020, corresponding to a mortality rate of 9.97% in 2019 and 9.99% in 2020. Females were dominant in both years, 58.6% (n=41)/ 74.67% (n=56) and the median age was 88 (minimum 51, maximum 102) and 85 (minimum 47, maximum 99), respectively. The emergency room was the most common origin 91,4% (n=64) and 98,7% (n=74). The median Charlson Comorbidity Index was 6 (minimum 3, maximum 11) and 5 (minimum 2, maximum 12), and the main causes of admission were respiratory 22.9%(n=16)/ 30,7% (n=23). Regarding causes of death, they are mostly neoplastic 30% (n=21)/29,3% (n=22), followed by respiratory 27,1% (n=19)/ 26,7% (n=20).
Conclusions: The current study didn't prove statistically significant differences between the number of inpatient deaths before and during the pandemic. The short period that is being considered may justify the results. Nonetheless, the subjective notion of lack of control over chronic disease and delay in resorting to health care, which culminate in more serious outcomes, or even death, remains.

1814 / #PD017

2-YEAR EXPERIENCE OF A CLINICAL ETHICS CONSULTATION SERVICE IN SPAIN

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Background and Aims: Although healthcare ethics consultation services are well established in the US, ethics committees are the most frequent ethical counselling bodies in European healthcare institutions. The latter, however, have shown limited ability to solve ethical problems in real-time. We share the experience of the first Spanish healthcare ethics consultation service.
Methods: Retrospective observational study of all consults to the Clinical Ethics Consultation service of Hospital La Princesa (Madrid, Spain) from September 1st, 2019 through August 31st, 2021. Case demographic, logistic and ethical variables were analyzed.
Results: 63 patients with a total of 124 identified ethical conflicts were evaluated by the clinical ethics consultation service during the study period. 41% of the cases were emergency consultations and 38% were preferential inquiries; thus an initial evaluation was performed in less than 24 h in 79% of the cases. The intensive care unit was the most frequent consulting service (14%). The preferred contact methods were via pager (57%), followed by formal requests through the electronic healthcare record system (20%) and via direct conversation with the consultant (11%). Attending physicians asked for most ethics consults (86%), followed by medical residents (8%) and nurses (5%). The most common ethical conflicts were those involving in the management of incapacitated patients (25%) followed by those managing difficulties in the doctor-patient-family relationship (23%), and end-of-life goal discussions (19%).
Conclusions: Our results show that implementing ethics consultation services in Spain is feasible and that these bodies provide a quick and efficient way to help professionals solve ethical problems in daily practice.

 DOI: 10.12890/2022_V9Sup1

345 / #PD018

SERUM URIC ACID AS A MARKER OF MALNUTRITION AND MORTALITY OF HAEMODIALYSIS PATIENTS

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Background and Aims: Malnutrition is an important risk factor for mortality of haemodialysis (HD) patients. The aim of our study was to investigate the impact of serum uric acid (SUA) and other non-invasive markers of malnutrition on survival.
Methods: We performed a cross-sectional study on 92 HD patients, mean age 63.3 ± 1.4 years, median dialysis vintage 1490 (IQR 1765) days. We recorded past medical history, laboratory tests, and basic demographic data, and performed bioelectrical impedance analysis with BodyStat (BodyStat Ltd.). SUA was measured every two months. Kaplan-Meier survival analysis and Cox's regression were performed.
Results: Included patients (54.3% male) had diabetes mellitus (34.1%), arterial hypertension (87.9%), and malignancy (15.2%). During the 5-year (from 2016 to 2021) observation period 55.4% died. We created tertile groups (low, medium, high) based on mean SUA <295 µmol/L, 295-336 µmol/L, and >336 µmol/L, respectively. The low group had significantly lower body mass index (BMI) (p=0.027), total iron binding capacity (TIBC) (p=0.006), albumin (p=0.015), phase angle (p<0.0005), dry lean mass (p=0.026), and free fat mass index (p=0.049). Kaplan-Meier survival analysis showed higher mortality for the low group (p<0.0005). In Cox's regression model SUA remained significant when adjusted for age, sex, BMI, and comorbidities (p=0.007), however when adjusting for other markers of malnutrition only age, phase angle, albumin, and TIBC remained.
Conclusions: Low SUA levels in chronic HD patients can identify individuals who are at risk for malnutrition. Further studies should be done to guide possible interventions.

524 / #PD019

CLINICALLY SIGNIFICANT POST-CONTRAST AKI AFTER EMERGENT CT ANGIOGRAPHY OF THE EXTRACRANIAL CEREBRAL ARTERIES.

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Background and Aims: Post-contrast acute kidney injury (PC-AKI) following intravenous contrast is widely feared. Recent well-conducted studies don't support its existence, nor its association with worse outcomes, even in high-risk patients. Some argue that, without randomized trials, there is a selection bias, with high-risk patients being less likely exposed to contrast. Our aim is to determine the incidence of clinically significant PC-AKI after emergent computed tomography angiography of the extracranial cerebral arteries (CTA) for acute stroke, hence free from this bias.
Methods: Retrospective study, including consecutive patients exposed to CTA from January 2018 to June 2019, with serum creatinine measurements at least 12h preceding CTA and 48h-96h afterwards. Clinically significant PC-AKI was defined as PC-AKI leading to renal replacement therapy, 30-day persistent renal dysfunction, prolongation of hospital stay or death. We performed a 95% Bayesian credible interval to estimate its probability of occurrence.
Results: 316 patients were included, 45% men, median age of 69 years (IQR 22). Most were hypertensive (71%), 27% had diabetes, 11% chronic kidney disease, 16% heart failure and 62% had potentially nephrotoxic chronic medication. Median baseline eGFR was 76mL/min/m^3. Potentially nephroprotective interventions (up to 6h after CTA) were undertaken in 54%. 65% had an ischemic stroke, of which 46% underwent reperfusion therapy. None developed clinically significant PC-AKI. Its estimated incidence in this population was < 0.94%.
Conclusions: Our study reinforces that fear of PC-AKI shouldn't limit the use of contrast when clinically indicated, even though considering the methodological limitations and the relatively low risk of our population.

894 / #PD020

HEALTH STATUS IN COPD PATIENTS WITH OR WITHOUT COMORBIDITIES IN GREECE: RESULTS FROM AHEAD STUDY.

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Background and Aims: Health status is in patients with COPD, and can be used as an index to quantify symptom burden and guide treatment. Aim of the study was to assess health status in relation to comorbidities among COPD patients after treatment with Fixed Dose Combination (FDC) of fluticasone/salmeterol (FLUT/SALM) delivered via Elpenhaler®.
Methods: Observational, non-interventional, multicentre clinical study (NCT03299673). Data were collected at baseline (V0), at first (V1) and third (V2)-month follow-up visits. Patients' health status was evaluated using the validated Greek version of Clinical COPD Questionnaire (CCQ).

 DOI: 10.12890/2022_V9Sup1

Results: Among the 723 participants with COPD, 59.8% were males and 51.8% were aged between 60-74 years. Overall, 162 (22.4%)out of 723 COPD patients had no comorbidities and 554 (76.6%)patients had at least one comorbidity. Of them, 276 (49.8%) had >2 comorbidities. At V2, in patients without comorbidities the mean CCQ total score was 1.13 ± 0.63 [decreased by 0.75 from baseline (p<0.0001)]. For patients with at least one comorbidity, the mean CCQ total score was 1.13 ± 0.68 [decreased by 1.18 from baseline (p<0.0001)] and for the patients with >2 comorbidities, the mean CCQ total score was 1.20 ± 0.67 [decreased by 1.26 from baseline (p<0.0001)]. Patients with >2 comorbidities entered the study with worse health status than the other two sub-groups. However, the health status was satisfactory improved in all three subgroups of patients. Similar conclusions were also drown by the statistically significant decrease (p<0.0001) in the mean domain scores regarding symptoms as well as mental and functional state at 3 months.
Conclusions: Three months of treatment with FDC FLUT/SALM via Elpenhaler® device, led to a clinical significant improvement in health status of COPD patients independently of the existence of comorbidities.

2541 / #PD021

NON-CONTACT BOXING EXERCISE AND IMPLICATIONS FOR PARKINSON DISEASE SYMPTOMS

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Background and Aims: Non-contact boxing has been a modality for rehabilitation among patients with Parkinson Disease (PD) to mitigate motor symptoms. Our objective is to provide updated insight on the impact of boxing exercise has on non-cardinal PD symptoms.
Methods: A review spanning 13 databases from inception to July 15, 2021 and adhering to PRISMA guidelines was performed. Studies written in English, incorporating boxing for therapeutic purposes among adults (>18 years old) clinically diagnosed PD, were included. Articles that did not mention non-cardinal PD symptoms were excluded. Eligible studies were assessed using the Joanna Briggs Institute critical appraisal tool.
Results: 1,740 articles were obtained; 19 articles were included after further screening. Seven (37%) articles included interventions solely focused on boxing, while twelve studies integrated boxing with other forms of exercise (e.g. Tai Chi, Cycling, Kayaking). Common intervention components included circuit training (47%), boxing ring work (37%), lunges (32%), walking (26%), and punching focus mitts (26%). Common cardinal PD symptoms studied were postural instability (37%) and shuffling gait (26%). Common non-cardinal PD symptoms studied were cognitive decline (26%) and social decline (16%). Use of focus mitts was associated with more favorable PDQ-39 scores (p<0.10); no other work-out component was statistically significant in the outcome of a successful decline in PD symptoms.
Conclusions: The study finds that only the use of focus mitts was significant in impacting PD health quality. More homogenous studies looking at the specific components of boxing training are needed to determine if other certain movements within boxing can lead to better symptomatic outcomes for PD patients.

2222 / #PD022

HAEMOPHAGOCYTIC SYNDROME IN A THIRD-LEVEL HOSPITAL DURING 15 YEARS, TREATMENT AND EVOLUTION

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Background and Aims: The hemophagocytic syndrome (HS) is an underdiagnosed and severe entity that requires an early recognition and treatment. Our aim is to describe the clinical and epidemiological characteristics of patients admitted to a third-level hospital because of HS during 15 years.
Methods: This is a descriptive retrospective study. Non-pediatric patients admitted in our hospital between 2005 and 2020 were included according to diagnostic criterion (HLH, HScore) and/or whether they received treatment for HS. The analysis was performed with IBM-SPSS®.
Results: 33 patients were identified. The treatment used was steroids (93.54% of the patients) and immunomodulators, and those for the underlying disease. Depending on the causes, those secondary to infections were treated with steroids (77.7%), immunoglobulins (66.6%) and other immunomodulators (11.1%), while all those secondary to autoimmune disease were treated with steroids, immunoglobulins and another immunomodulator. 63.6% improved, the rest died during admission, varying the frequency of mortality due to causes. There were complications derived from hospitalization, hemophagocytic syndrome (distress 21%, multi-organ failure 15%, liver failure 12% and massive hemorrhage) and 4 cases of infection derived from immunosuppression.
Conclusions: In our patients, the first treatment used was steroids and cyclosporine is the most frequent immunosuppressor. Immunoglobulins offer good results in infections and autoimmune diseases. The main predictor of a good prognosis is the existence of a treatable cause. In conclusion, it is a life-threatening entity which requires high level of suspicion. It is essential to initiate early supportive treatment, also for the underlying cause.

 DOI: 10.12890/2022_V9Sup1

RAPID FIRE

2301 / #RF001

INFECTIOUS ENDOCARDITIS IN REAL LIFE: TEN YEARS IN SIERRALLANA HOSPITAL

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Background and Aims: The objective of this study is to analyze comorbidities, average stay and mortality of infectious endocarditis (IE) in patients admitted to our area and their evolution receiving exclusively medical treatment, as opposed to medical-surgical treatment.
Methods: We reviewed patients admitted to the Sierrallana Hospital between January 2010 - December 2018 and who were diagnosed with IE. We selected the main clinical and epidemiological data.
Results: 99 patients were diagnosed with IE. Most were male (66%). The mean age was 74 years (SD 12). Regarding comorbidities, 30.3% had heart failure (9.1% acute pulmonary edema); 25.3% stroke; 8.1% suffered from dementia; 18.2% were COPD; 29.3% diabetics, of which 24.23% had diabetes complications; 21.2% had suffered a neoplasm before or simultaneously. The proportion of cases involving a native valve was 77.8%, while that of a prosthetic valve was 19.2%. Five presented endocarditis in non-valvular prosthetic material. 26 cases were caused by *S. aureus*, 15 *S. epidermidis*, 17 Streptococcal species except *Enterococcus*, 7 by various species, and in 34 cases no bacteria isolated. 23 cases were treated surgically. 39 patients have died during follow-up, 30 due to IE or its complications. 28 (71.8%) deceased had native valve endocarditis. 50.6% of the sample had no control HC.
Conclusions: Most of the analyzed IEs occurred in men and on native valves. The average hospital stay was 30 days. Surgery was indicated in a quarter. *S. aureus*, *epidermidis*, and various streptococci represent the bulk of etiological diagnosis, we highlight a high proportion of cases with negative blood cultures and high mortality in our series.

2303 / #RF002

MORTALITY IN A GENERAL SERIES OF INFECTIOUS ENDOCARDITIS: ASSOCIATED FACTORS

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Background and Aims: Infective endocarditis (IE) continues to be associated with significant mortality and need of surgery.
Methods: We reviewed medical records of patients admitted to the Sierrallana Hospital between January 2010 - December 2018 with diagnosis of IE. We collected demographic, microbiological and epidemiological data, included in the Charlson index and whether the patient was transferred to a tertiary hospital. We analyzed their association with mortality using contingency tables and the $\chi 2$ test, except for the Charlson index (with Student's t-test).
Results: 99 patients were diagnosed with IE, 39 died, 30 in the course of the episode. 66 occurred in males. The mean age was 74 years. 75 occurred on native valves, 19 on prosthetic valves, and 5 on non-valvular intracardiac materials. 26 cases were caused by *S.aureus*, 15 by epidermidis, 17 by streptococcal species, and the rest by other bacterial species or none were isolated in blood cultures. We did not observe differences in mortality between men and women, neither in relation to age, nor according to valve type, nor if the patient was transferred to a tertiary hospital. We did observe higher mortality in IE caused by *S. aureus* (54% vs 28%) and with higher scores on the Charlson index (3.00 vs 2.01).
Conclusions: We have registered a mortality in the upper limit of what has been reported, among our patients diagnosed with IE in the last decade. Mortality was associated with *S.aureus* and high levels of comorbidity, and did not appear to improve with transfer to a referral center.

 DOI: 10.12890/2022_V9Sup1

2321 / #RF003

CLINICAL AND EPIDEMIOLOGICAL STUDY OF PATIENTS INFECTED WITH STRONGYLOIDES STERCORALIS IN A TERTIARY REFERRAL HOSPITAL IN MADRID BETWEEN 2015-2020

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Background and Aims: Strongyloidiasis is an infection caused by *Strongyloides stercoralis*. This parasite can infect humans causing an asymptomatic infection that can worsen in case of immunosuppression. Currently, given the higher incidence of immunosuppressive treatments, the risk of superinfestation is high. We carried out this retrospective study with the aim of determining the characteristics of *S. stercoralis* infection in our setting, its symptoms or manifestations and the treatment administered.
Methods: This is a retrospective, observational and descriptive study based on all positive serologies of *S. stercoralis* in our hospital between 2015-2020. We analized the epidemiological variables, relevant medical history and risk factors for infection. Also clinical variables, such as symptoms attributable to the infection, the presence of eosinophilia or the existence of parasites in feces. The treatment administered in each case was also reviewed.
Results: We checked over a total of 66 positive serologies. 55 patients were foreigners and only 11 patients were Spanish, 46% of those denied trips abroad. 9 patients had HIV diagnosis, 9 had rheumatologic diseases and 5 were receiving immunosuppressive treatment. Eosinophilia was common and itching or urticaria were frequent clinical manifestations. In 10 cases there was no record of prescribed treatment of any kind, being impossible to determine the impact of this finding in the long term.
Conclusions: *S. stercoralis* infection is an entity with non-specific clinical manifestations, common among foreign population but can also infest local population without previous trips abroad. Clinical symptoms are often limited to mild cutaneous manifestations and eosinophilia in laboratory tests. All cases with positive serologies should be treated.

2349 / #RF004

EVALUATION OF THE MANAGEMENT OF STAPHYLOCOCCUS AUREUS BACTEREMIAS IN THE CÁCERES UNIVERSITY HOSPITAL DURING 2017-2018. DID WE ACT CORRECTLY?

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Background and Aims: To compare the clinical management of patients with *Staphylococcus aureus* bacteremia with and without operation of an Antibiotic Optimization Program through the analysis of different factors reflected in clinical guidelines.
Methods: Retrospective, observational and descriptive study comparing the clinical management of patients with *S. aureus* bacteremia during 2017 (with operation of PROA) and 2018 (without PROA) at CHUC through the analysis of the rate of adequate antibiotic prescriptions, extraction of control blood cultures, performance of echocardiogram and mortality rate on hospital admission. Data analysis was performed using SPSS version 21.0 statistical software.
Results: A total of 77 patients were evaluated (32 patients in 2018 and 45 in 2017), corresponding to the total number of *S. aureus* bacteremias. In 2018, there was an increase in the number of interconsultations to the Internal Medicine service (28.1% vs. 26.7%), as well as a decrease in appropriate antimicrobial prescriptions (62.5% vs. 66.7% in 2017). 100% of patients admitted to medical or surgical specialties who were assessed by PROA or Internal Medicine during 2017 and 2018 received appropriate antimicrobial treatment and control blood cultures were drawn; and an echocardiogram was performed during admission in 88.88% in 2018 (vs. 91.66% in 2017). The mortality rate during hospital admission was 11.1% in 2018, with no exitus objectified during admission in 2017.
Conclusions: *S. aureus* bacteremia is an important cause of mortality. Our study objectifies the importance of assessment by expert specialists in the management of patients with bacteremia as they improve health care by reducing the inappropriate use of antimicrobials and in-hospital mortality.

2374 / #RF005

MULTIDRUG-RESISTANT BACTERIA: A GREAT CHALLENGE IN HEALTHCARE

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Background and Aims: Infections caused by multidrug-resistant (MDR) bacteria are increasing surprisingly due to indiscriminate

 DOI: 10.12890/2022_V9Sup1

global consumption of antibiotics and represent a serious problem for health systems. The infections caused by MDR bacteria are associated with an increase in mortality. The objective of this study is to record the main isolates and the clinical profile of the infected patients.
Methods: This is a retrospective study of MDR infected patients accommodated in Internal Medicine Clinic (IMC) and Intensive Care Unit (ICU) of a Regional Hospital during period 9/2020-9/2021. The study includes results from blood, blood catheter, urine, and respiratory specimens examined in the Microbiology Department. The main isolates were: *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Acinetobacter Baumanni*, *Enterobacter cloacae*, *Pseudomonas aeruginosa* and *Staphylococcus aureus*.
Results: During the study period, 156 MDR bacteria were isolated. The average age of patients was 71.4 years. The most frequent microorganism isolated in patients accommodated in IMC was E.coli ESBL (extended-spectrum b-lactamase)(39.3% of cases) while in ICU patients *K. pneumoniae* (35.7%) and *A. baumanni* (33.2%). The most frequently observed risk factors of the infected patients were: COPD (20.5%), congestive heart failure (19.3%), urinary catheterization (19.1%) diabetes mellitus (16.1%), chronic kidney disease (12.6%), >7 days of hospitalization(12.4%).
Conclusions: The incidence of MDR infections caused by gram-negative bacteria is highest among elderly patients probably due to comorbidities and previous hospitalizations. It is important for healthcare workers to be aware of this increasing threat in order to optimize antimicrobial prescribing patterns for this high-risk patient population

2376 / #RF006

URINARY TRACT INFECTION IN YOUNG PATIENTS IN THE EMERGENCY DEPARTMENT.

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Background and Aims: Urinary Tract Infection (UTI) is a common infection among children by the age of 16 years. The diagnosis remains controversial as symptoms are usually non-specific, so appropriate diagnostic evaluation and management is required to reduce morbidity.
Methods: The Microbiology department received and examined 512 urine cultures and antibiogram results of paediatric patients who came to the emergency department from January 2021 to September 2021
Results: 46.3% of total cultures were sterile, 14.2% were negative, 7.4% contaminated and 32.1% positive. Of children with culture growth, 70.2% were female and 29.8% were male. The developed bacteria were: *E. coli* (65%), *P. mirabilis* (10%), *E. faecalis* (9%), *K. pneumoniae* (8%), *E. faecium* (6%), *S. saphrophyticus* (2%). Moderate frequency of resistance to ampicillin and amoxicillin-clavulanate was recorded. Only 4 cases of *E. coli* ESBL (extended spectrum b lactamase) were recorded.
Conclusions: *E. coli* was the most common pathogen of urinary tract infections in children. Moderate resistance to ampicillin, amoxicillin-clavulanate was detected. Resistance to antibiotics remains a worldwide serious problem, so UTIs require careful management and treatment considering resistance rates.

2636 / #RF007

FEBRILE NEUTROPENIA AT THE HOSPITAL INFANTA CRISTINA (PARLA)

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Background and Aims: Prognosis of febrile neutropenia(FN) depends on proper diagnosis and treatment. It's essential to know the local reality to adapt to the general recommendations.Our aim was to analyze the characteristics of FN episodes in our center.
Methods: Retrospective analysis of patients discharged from hospitalization with a coded diagnosis of FN between 2016-2022 at the Infanta-Cristina Hospital (Madrid).
Results: 105 patients (56.2% men, mean age 61.5 years) were analyzed. 92.4% had chemotherapy (lymphoma 43.8%, solid organ 40%, leukemia 8%). 40% received prophylaxis with G-CSF, and 4.8% with antibiotics.At diagnosis, 2.9% patients had sepsis and 1% septic shock. At admission neutrophils mean was 308cells/mL, 6.6% patients had G3-4 anemia, and 26.6% G3-4 thrombocytopenia. Neutropenia lasted a mean of 3 days, and 10.4% had a nadir <100 cells/mL. Microbiological isolation was obtained in 17.1% of the patients. Of these, 55.5% were gram-negative bacilli (4 *E. coli*, 2 *P. aeruginosa*, 4 others), followed by 22.2% viruses and 11.1% gram-positive cocci (2 *S. pneumoniae* and 1 *S. epidermidis*). 6 of the isolates (33,3%) were resistant to amoxicillin-clavulanate. All GNB were sensitive to piperacillin-tazobactam, cefepime, and meropenem.The main sources of infection were respiratory (9.5%) and ENT (9.5%), with no definitive focus in 65.7%. The average stay was 7 days. 1 patient was admitted to the ICU and 5% died.
Conclusions: In comparison with literature, the low rate of microbiological isolation and antibiotic resistance stands out, as well as a lower severity and mortality. This could be due to being a medium-sized hospital, with less complex patients, and due to a selection bias when performing a search based on the coded diagnosis at discharge.

 DOI: 10.12890/2022_V9Sup1

2650 / #RF008

EPIDEMIOLOGICAL AND CLINICAL PROFILE OF CONFIRMED CASES OF LYME DISEASE IN THE PROVINCE OF ÁVILA - CASTILLA Y LEÓN, SPAIN

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Background and Aims: To determine clinical and epidemiological profiles of confirmed Lyme disease cases in the Province of Ávila.
Methods: We performed a cross-sectional descriptive study of confirmed Lyme cases in the province of Ávila, by determining the *Borrelia burgdorferi* serology processed in the Laboratory of the Nuestra Señora de Sonsoles Hospital from 2016 through 2021. Confirmed cases were defined as positive IgM antibodies detected at a titer >1.4 with a positive immunoblot assay (IA). Quantitative variables were represented by mean values (SD) and qualitative ones by percentages with their confidence intervals (CI). For analysis purposes, cases were divided into 3 groups according to the study diagnosis and management.
Results: There were 40 confirmed cases (positive IA) out of 112 patients, obtaining a cumulative incidence of 25.11 per 100,000 and a confirmed prevalence of 35.7%. 42.5% were confirmed when having general symptoms. The highest proportion of cases was in women (62.5%), and the mean age was 37 (16.2) years. 60% occurred in non-rural and 40% in rural areas (81% of them in mountain regions). The increase in serology was 0.29 (0.18) for IgG and 2.2 (0.9) for IgM. The increase in biological parameters, for example c-reactive protein (CRP), was up to 12, GOT up to 128 and GPT 112. 37.5% of the cases received some antibiotic treatment (66.7% doxycycline).
Conclusions: *Borrelia* infections are detected in the province of Ávila, and suspicion must arise amongst residents of non-rural areas (especially mountains), in the context of general and/or febrile syndrome with or (especially) without neurological manifestations.

2206 / #RF009

VENOUS THROMBOEMBOLISM PROPHYLAXIS IN ADVANCED PANCREATIC CANCER: FROM GUIDELINES TO LOCAL REALITY

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Background and Aims: Scientific societies guidelines (SEOM, ESMO, ASCO, ASH) recommend in favor of considering at least 12-weeks-thromboprophylaxis for ambulatory cancer patients with high-risk of venous thromboembolism (VTE), but the strength/evidence for this recommendation isn't strong. Our objective is to analyze our local incidence of VTE in advanced pancreatic cancer (APC) patients to assess the convenience of a systematic thromboprophylaxis (STP) on them.
Methods: We included all patients with APC who underwent chemotherapy treatment. We calculated number of days-of-treatment and potential costs of VTE treatments (from diagnosis to death), as well as potential days and costs of 12-weeks-STP. We estimated a 50% reduction of VTE events during the prophylaxis-period, as previously described.
Results: 73 patients would be eligible for thromboprophylaxis. 9(12,3%) of them had a VTE event (5 symptomatic). There weren't t deaths related to VTE nor bleeding, neither differences in Khorana score between VTE and non-VTE groups. 4 of the thrombosis occurred during the first 12-weeks-period of chemotherapy, so 2 cases could have been potetially prevented with a STP (NNT of 36.5). 645 full-anticoagulation-days were necessary to treat all the VTE happened during the first 12-weeks of chemotherapy. STP could have avoided half of them, with expected savings of 3,483€ in enoxaparin (80 mg bd) or 978 € in direct oral anticoagulants (DOACs). For this 12-weeks-period, 6,165 prophylactic-anticoagulation-days would be needed, with expected costs of 25,071 € in enoxaparin or 18,700 € in DOACs.
Conclusions: We've decided not to start STP in our patients with APC because of the elevated NNT and costs, with no expected impact on survival.

DOI: 10.12890/2022_V9Sup1

2341 / #RF010

USE OF D-DIMER FOR THE EXCLUSION OF VENOUS-THROMBOSIS IN HOSPITALIZED PATIENTS

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Background and Aims: D-dimer assay's utility for excluding venous-thromboembolism (VTE) in hospitalized patients is a matter of debate. We aimed to assess the diagnostic utility of D-dimer for excluding VTE in hospitalized patients.
Methods: Retrospective cohort study between 2014 to 2019 that included patients from medical and surgical wards with a positive age-adjusted D-dimer (AADD) result drawn during their hospitalization. The outcomes were determining a D-dimer threshold requiring further evaluation and assessing the prognostic value of D-dimer in predicting VTE in hospitalized patients.
Results: The cohort included 354 patients, 56% of them underwent definitive diagnostic imaging, and 7.6% were diagnosed with VTE after a positive AADD within 90 days of follow-up. Mortality rates were higher in patients diagnosed with VTE (33.3% vs. 15.9%, p=0.03). Patients with pneumonia and other infectious etiologies were less likely to be further evaluated by definitive imaging (p=0.001). Patients with a respiratory complaint (p=0.02), chest pain (p<0.001), or leg swelling (p= 0.01) were more likely to undergo diagnostic imaging. Patients with D-dimer levels >X2 the AADD were at increased risk of VTE (OR 3.87 (1.45-10.27)). At 90 days of follow-up, no excess mortality was observed for patients without diagnostic evaluation following elevated AADD.
Conclusions: D-dimer may be used in hospitalized patients to exclude VTE using the traditional AADD thresholds. D-dimer levels >X2 the AADD usually mandate further diagnostic imaging, while lower levels, especially when an alternative diagnosis is present, probably do not require additional workup.

2348 / #RF011

COMPOSITE VENOUS THROMBOEMBOLISM AND BLEEDING RISK AMONG HOSPITALIZED INTERNAL MEDICINE PATIENTS

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Background and Aims: Internal medicine inpatients are often multimorbid, complex, and require prophylaxis for venous thromboembolism (VTE). On the other hand, they are also at increased risk of bleeding after anticoagulant prescription. This study investigated characteristics of internal medicine inpatients with high and low estimated risk of VTE and bleeding.
Methods: A single center, cross-sectional study was conducted with consecutive inpatients at a tertiary internal medicine clinic. VTE risk was assessed using the Padua Risk Scale, scores >3 indicating increased risk. The risk of bleeding was assessed using the HAS-BLED scoring, scores >2 indicating increased risk.
Results: The final analysis included 500 patients (mean age: 59.9 ± 19.8; female: 50%). The most common comorbidities were hypertension (45.8%), type 2 diabetes mellitus (34.0%) and cardiovascular disease (25.4%). VTE prophylaxis was indicated by 35% (n=175). Mean Padua risk score was 5.7 ± 1.9 vs. 1.4 ± 1.1 in high vs. low VTE risk groups. Acute infection was the most frequently scored variable on Padua Risk Scale by 64.6% among patients at high VTE risk. The risk of bleeding was concomitantly increased by 36.0% (n=63) among patients at risk of VTE, significantly higher than patients at low risk of VTE (20.9%) (p<0.001). Padua Risk Score >3 was associated with increased odds of bleeding risk (OR: 3.12, 95CI: 1.41-3.20, p<0.001) on simple logistic regression, which became saturated in adjusted analyses.
Conclusions: This study showed high risk of VTE in over one-third of internal medicine inpatients. The risk of bleeding was simultaneously increased in over one third of these patients.

2417 / #RF012

NEOPLASTIC PERICARDIAL EFFUSIONS, WHICH ARE THEIR DIFFERENTIAL CHARACTERISTICS?

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Background and Aims: Pericardial effusion (PE) is a rare syndrome whose detection has increased in recent years. The aim of this study was to analyze the differential characteristics of PE of neoplastic cause respect other etiologies.
Methods: Retrospective observational study of patients with PE diagnosed during 2016-2020. We collected sociodemographic, clinical, analytical, radiological variables, complications, treatments, mortality and survival at one year. The sample was divided into effusions of neoplastic and non-neoplastic etiology establishing the differences between boths.
Results: Of 163 patients with PE, 92 (56.4%) were male, with a mean age of 68.5 years (SD ± 14). A neoplastic cause was demonstrated in 38 (23.3%) (second most frequent cause, preceded by idiopathic). The mean age at diagnosis of patients with neoplasia was significantly lower (60 v s71 years, p<0.001) with no sex differences. The presence of comorbidities such as hypertension (OR 0.40, 95%CI 0.18-0.88) or diabetes (OR 0.28, 95%CI 0.12-0.66%) was significantly lower. Patients with neoplastic PE more frequently had a history of malignancy (p=0.001), were smokers (p=0.001) or former smokers (p=0.039). Clinical weight loss was more frequently presented (p<0.002) and the time of evolution was longer (p<0.001). Hospital stay in

 DOI: 10.12890/2022_V9Sup1

days was similar in both groups, however, patients with neoplastic effusion were readmitted significantly more (30.8% vs 2.4%; p<0.001) and had a significantly higher 1-year mortality rate (73.7% vs 29.6%; p<0.001).
Conclusions: The etiology of one in four PE is cancer. Neoplastic pericardial effusions occur in younger patients, with fewer comorbidities and higher tobacco consumption. The rate of readmission and mortality is significantly higher in patients with neoplastic PE.

2428 / #RF013

TO PRESCRIBE ADDITIONAL MEDICATION OR TO PALLIATE LESS? POLYPHARMACY IN PALLIATIVE CARE

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Background and Aims: Polypharmacy is defined as above a specific number of regular use medication or as inappropriate medication whose risks outweigh their benefits. This is quite common in palliative care, being associated with an increased risk of adverse reactions and a consequent decrease in the patient's quality of life. It is important to review and cease unnecessary medication and minimize the risk of harmful drug interactions. With this study we intended to evaluate the prevalence of polypharmacy in palliative patients.
Methods: Retrospective observational study of patients followed in a district hospital palliative care consultation, from January 1 to 31, 2022. We considered polypharmacy the use of five or more drugs; we did not consider medication used as needed i.e. S.O.S. Statistical analysis: Microsoft excel. Admission criteria: palliative patients, followed in palliative care consultation, with detailed medication history.
Results: Of the 75 patients, 67 (89.3%) accomplished the admission criteria, 52.2% were male (median age 76 years) and 47.8% were female (median age 72 years). 94% were oncologic patients. 40.3% of the patients were using more than five medications. The median number of medications for patient was 6.16. The median of S.O.S. medication for patient was 1.03. 46% of the patients died within the next month.
Conclusions: The prevalence of polypharmacy in palliative patients was 40.3%. This significative number is associated with several barriers to deprescribing. There are tools that allow secure deprescrition, in particular OncPal and STOPPFrail. In this setting, it's important to demystify deprescrition among medical professionals, in order to improve palliative patients quality of life.

2532 / #RF014

EXTRACORPOREAL CYTOKINE HEMOADSORPTION AS RESCUE TREATMENT IN CRITICALLY ILL PATIENTS WITH COVID-19 PNEUMONIA.

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Background and Aims: Cytokine storm plays an important role in the pathophysiology of COVID-19 disease. Extracorporeal hemadsorption (HA) is a potential adjunctive therapy in severe cases of COVID-19 associated pneumonia. In this retrospective study we report data from critically ill patients with HA during the first wave of the pandemic in a private hospital in Puebla, Mexico.
Methods: We retrospectively analyzed the medical records of critically ill patients with COVID-19 pneumonia, severe acute respiratory failure and hypercytokinemia were analyzed. All the patients underwent cytokine hemadsorption using an extracorporeal adsorber with advanced porous polymer sorbent bead technology. Clinical and laboratory data (D-dimer, ferritin, C-reactive protein and lactic dehydrogenase) were collected: on admission, before and after HA therapy.
Conclusions: Critically ill patients with COVID-19 with severe acute respiratory failure and hypercytokinemia who received adjuvant treatment with cytokine hemadsorption showed a significant reduction in inflammation biomarkers levels. We found no mortality improvement in our study; this may be due to the delayed response of the specialists in the Intensive Care Unit department. Further studies are needed in order to improve early intervention, before cytokine storm.

2546 / #RF015

WHEN DO WE USE PALLIATIVE SEDATION IN NON-ONCOLOGICAL TERMINAL ILLNESS?

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Background and Aims: To analyze and understand the use of palliative sedation in non-cancer patients admitted to Internal Medicine.
Methods: Descriptive and retrospective study of deaths of non-cancer patients (>18 years) who required palliative sedation in an Internal Medicine ward during a calendar year. Clinical variables of the selected cases were analyzed using the statistical program SPSS.
Results: A total of 98 patients without oncological pathology who required palliative sedation were selected, with a predominance of males (53%) and a mean age of 80 years. The main causes of sedation were: i) infectious pathology (52%), ii) cardiac pathology (28%), iii) cerebrovascular pathology (20%); other entities (10%). The main symptom that led to sedation was refractory dyspnea.

DOI: 10.12890/2022_V9Sup1

Conclusions: Palliative sedation consists of the deliberate decrease in the level of consciousness in the presence of symptoms refractory to treatment. In our study, the pathology that most frequently required palliative sedation was infectious; and the main symptom was dyspnea. We consider it of special interest to implement palliative care in non-oncological terminally ill patients, adapting the pharmacological treatment and establishing palliative sedation in the face of therapeutic refractoriness of symptoms.

2574 / #RF016

EPIDEMIOLOGICAL PROFILE OF PATIENTS ATTENDED IN THE PALLIATIVE CARE UNIT MANAGED BY THE INTERNAL MEDICINE DEPARTMENT OF THE ÁVILA HEALTH CARE COMPLEX.

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Background and Aims: The aim of this study is to identify the epidemiological profile of patients attended in the palliative care unit managed by the Internal Medicine Department of the Complejo Asistencial de Ávila.
Methods: We conducted a cross-sectional descriptive study. We used anonymised records of all the patients attended in the Palliative Care Unit. Age, sex, service of referral and reason for care were obtained, as well as the time of start and end of care by the unit from which the mean follow-up time was obtained. Quantitative variables were summarised by mean and standard deviation and qualitative variables by relative frequency, for all estimates their 95% confidence level is presented.
Results: The highest proportion of patients in the unit was male (58.4%) and up to 65% in the group under 78 years of age. Between 57% to 64.6% of the patients seen were referred by specialised care, followed by the emergency department 12.7%. Patients under 78 years of age were referred in greater proportion by specialised care (64.6%); meanwhile the older age group ≥89 years increased the proportion of patients referred by the emergency department 15.3% and primary care 14.6%. Oncological pathology was the main cause of referral to the palliative care unit; however, non-oncological pathology increased in proportion for those over 89 years.
Conclusions: Patients seen by the palliative care unit present different patient profiles that should be taken into account in care planning, as well as in referral flows by other services, in order to allow timely access to the patient.

2652 / #RF017

PARANEOPLASTIC RETROPERITONEAL FIBROSIS: ABOUT TWO OBSERVATIONS

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Background and Aims: Retroperitoneal fibrosis (RPF) is a rare pathology characterized by the development of fibroinflammatory tissue surrounding retroperitoneal structures. Several etiologies are incriminated. Here below we report two cases of RPF revealing cancer, to identify the clinical and evolutionary aspects.
Methods: It's a retrospective study of 2 female cases of RPF revealing neoplasia. We collected, for each, interview data, clinical and paraclinical findings, and data of the follow-up.
Results: N°1: A 51-year-old, admitted for RPF discovered on an uroscanner revealing a ureterohydronephrosis. The patient had abundant ascitis. A paracentesis showed a cellular fluid with hyperlymphocytosis. A CT scan showed retroperitoneal lymphadenopathies and tissue sleeves invading the left iliac psoas muscle and stenosing the portal trunk. CEA and CA 19-9 markers were positive. A biopsy of the psoas muscle concluded to a poorly differentiated adenocarcinoma of gastric origin. A gastric linitis aspect and tract strictures related to an extrinsic process were seen on endoscopy. The patient was referred to carcinology. N°2: A 65-year-old admitted for lower limb swelling. The investigations concluded to a deep vein thrombosis (DVT). The anti phospholipid syndrome was retained and the patient was put on anticoagulation. A recurrence of DVT occurred 17 months later associated with lower back pain. The CT scan showed an ovarian mass, with carcinomatous RPF. The lymph node biopsy had concluded to type B follicular lymphoma.
Conclusions: Although often idiopathic, RPF is a rare pathology that may reveal other underlying pathologies. The polymorphic clinical manifestations can lead to a delay in diagnosis explaining the severity of this entity.

2690 / #RF018

UPPER EXTREMITY NON-CATHETER-ASSOCIATED DEEP VEIN THROMBOSIS FROM 2009 TO 2021 IN ÁVILA

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Background and Aims: Upper extremity deep vein thrombosis represents 1-4% of all cases of DVT. Risk factors include hereditary and acquired causes (e.g. previous immobilization, prolonged hospitalization, recent surgery or trauma, prior VTE, malignancy, stroke complications or family history of VTE). In

DOI: 10.12890/2022_V9Sup1

spontaneous UEDVT, we must also consider other risk factors, such as strenuous sport activities involving the upper extremities, repetitive overarm hyperabduction, thoracic cage anatomic abnormalities and thrombophilia.
Methods: We analyzed the cases of UENCADVT diagnosed in our institution from 2009 through 2021.
Results: 47 cases were found. 59.57% men and 40.42% women; the mean age was 65.43. The symptoms were related to VTE in 42.55%, and not VTE-related in 59.57%. The main diagnostic techniques were doppler ultrasound (55.32%), computed tomography (36.17%); other diagnostic techniques were performed in 8.51%. Only 8.51% had pulmonary embolism. D-dimer was analyzed in 42.55%, being >1000 in 80% and <1000 in 20%. 53.19% of the patients received anticoagulant therapy with LMWH, 25.53% acenocoumarol and direct oral anticoagulants 10.63%. Total cancer cases accounted for 63.82%. Amongst cancer patients diagnosed with UENCADVT, 43.33% corresponded to adenocarcinomas, 20% to epidermoid carcinomas, 13.33% to lymphomas, 20% had other types of cancer and only 3.33% had multiple cancers at once. 24 patients (51.06%) died, four of them directly related to VTE complications.
Conclusions: UEDVT is associated with a high rate of tumor incidence (63.82%), as well as to a short rate of pulmonary embolism (8.51%). Moreover, D-dimer values are generally not highly elevated. Thus, we should place an emphasis on clinical suspicion for an accurate diagnosis.

2219 / #RF019

PULSE WAVE VELOCITY IN PATIENTS TREATED WITH TYROSINE KINASE INHIBITORS AS A PREDICTOR OF EARLY CARDIOVASCULAR DISEASE

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Background and Aims: Pulse wave velocity (PWV) is and early sign of vascular toxicity in patients using tyrosine kinase inhibitors (TKIs). Our aim is to analyze changes in PWV to determine arterial stiffness in patients with chronic myeloid leukemia (CML) treated with these drugs.
Methods: This study is observational. It includes patients diagnosed with CML who were going to be treated with TKIs during 4 years (2016-2019). The analysis was performed with IBM-SPSS®.
Results: 32 patients were identified. 62.5% (20) were male. The mean age was 60.63 years (+15.11). 12.5% (4) had normal weight. The mean body mass index was 29.49 (± 5.03). 65.6% (21) were non-smokers, 12.5% (4) active smokers, and 21.9% (7) ex-smokers. The mean waist-hip ratio was 0.92 (± 0.08). The mean systolic blood pressure was 139.66mmHg and diastolic one was 80.81 mmHg. The total cholesterol was 182.47 mg/dl, HDL 53.35 mg/dl, LDL 109.16mg/dl, triglycerides 110.53 mg/dl. The mean PWV was 9.03 (± 1.57). The mean time of exposure to ITK until PWV measured was 9.44 (±8.04) years. PWV was in range in 62.1% cases and in 37.9% was altered.In ranged PWV, 6 patients have received imatinib and 12 new generation drugs. In altered PWV, 2 received imatinib and 9 new generation drugs.
Conclusions: In our population there was a higher percentage of altered PWV among those patients taking new-generation TKIs compared to imanitib, especially in the group without prior hypertension. PWV could be used as a detector of arterial stiffness in patients with chronic TKIs intake to assess subclinical vascular disease.

2241 / #RF020

PATIENTS WITH ATRIAL FIBRILLATION RECEIVING DABIGATRAN IN REAL CLINICAL PRACTICE

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Background and Aims: To describe clinical characteristics of patients with non-valvular atrial fibrillation (AF) receiving dabigatran
Methods: Observational study of the main risk factors and comorbidities of patients with AF treated in an Internal Medicine Unit, in whom treatment with dabigatran is started until January 2022. The patients were dosed according to criteria data sheet of the Spanish National Health System.
Results: 471 patients (47% female), mean age 81.8 (7.7) years; 84.1% received dabigatran 110 mg twice daily (D110); 75.2% had permanent AF, of which 28.2% had not received prior anticoagulant treatment. There were no patients overdosed and 2.5% were off-label underdosed with D110. The clinical profile at basaline of the patients is shown in Table.
Conclusions: Dabigatran has two doses aimed at different populations. D110 patients are older, have a higher burden of comorbidities, are polymedicated and have a higher ischemic and hemorrhagic risk. One in four patients with permanent AF had not received anticoagulant treatment.

DOI: 10.12890/2022_V9Sup1

	Total
Age, mean (SD)	81.8 (7.7)
CHA2DS2VASc, mean (SD)	4.80 (1.49)
HAS-BLED, mean (SD)	2.4 (0.89)
Comorbidities, mean (SD)	4.0 (1.7)
Hypertension, %	90.2
Diabetes, %	32.1
eGF < 60 ml/min, %	41.8
Ictus ischemic, %	31.4
Bleeding, %	16.8
Ischemic heart disease, %	11.3
Heart failure, %	50.7
Dementia, %	28.6
Medications, mean (SD)	7.1 (2.9)

#RF020 Table 1.

2251 / #RF021

EXPERIENCE WITH PHARMACO-MECHANICAL THROMBOLYSIS IN UPPER LIMB VENOUS THROMBOSIS

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Background and Aims: Upper limb deep vein thrombosis is rare. Spontaneus form is due to anatomical anomalies of the thoracic outlet that cause axillary-subclavian compression, Paget-Schroetter syndrome.The secondary form is for hypercoagulability situations. Complications are PTE, mortality ,recurrence or prothrombotic syndrome. There are not clinical trials comparing the different anticoagulants, either different treatments, but large case series have shown that early thrombolysis followed by surgical decompression is associated with a lower recurrence rate. We aim to describe the characteristics of the patients included in the series, and to evaluate the experience in the performance of pharmaco-mechanical thrombolysis (thrombectomy) in patients with upper limb venous thrombosis, predominantly axillary-subclavian.

Methods: Data were collected from 22 patients treated with thrombectomy, affected by axillary-subclavian upper limb venous thrombosis, between April 2018 and March 2021. Demographic and clinical variables such as risk factors, comorbidities, thrombophilia, patency score and recurrences were analyzed.

Results: Most of the patients included were women with a mean age of 51 years. The primary thrombosis was observed with predominance in the axillary-subclavian region, occurring in younger patients, where stress was the predominant predisposing factor. There was a low incidence of congenital or acquired thrombophilia.Treatment was initiated with LMWH in all cases. After thrombectomy, anticoagulation was continued for 6 months; with LMWH, VKA, DOACs or combinations. After thrombectomy, most reached permeability and did not recurr.

Conclusions: Initial treatment with anticoagulation is inferior to thrombectomy.Paget-Schroetter syndrome is a rare entity affecting young, healthy individuals, in which early diagnosis is essential to obtain venous repermeabilization. Whenever possible, surgical removal of the cause of the obstruction to blood flow combined with catheter-directed thrombolysis. Multidisciplinary management by catheter-guided local thrombectomy and decompressive surgery has satisfactory results, with no relevant complications and a much lower incidence of PTS compared to conservative treatment.

2257 / #RF022

DEVELOPMENT OF CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH CHRONIC MYELOID LEUKEMIA TREATED WITH TYROSINE KINASE INHIBITORS

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Background and Aims: Tyrosine kinase inhibitors (TKIs) are drugs that have shown great efficacy in the management of patients with chronic myeloid leukemia (CML). The objective of our study is to analyze the appearance of cardiovascular risk factors in patients with CML treated with ITK.

Methods: Retrospective observational study in which patients with a diagnosis of CML in treatment with TKI are included in follow-up in Vascular Risk consultation for 4 years (2016-2019). The statistical analysis was done with SPSS v.25.

Results: 32 patients were analyzed. 62.5% were male and the mean age was 60.63 ± 15.11 years. 46.9% were overweight and 40.6% were obese. The mean BMI was 29.49 ± 5.03. 12.5% were active smokers and 21.9% were former smokers. The treatment was carried out with imatinib (21.9%), dasatinib (25%), nilotinib (37.5%) and ponatinib (15.6%). During follow-up, 40.6% of patients developed hypertension or hyperlipidemia and 9.4% diabetes mellitus, ischemic heart disease or stroke. 6.3% developed pulmonary hypertension and 3.1% atrial fibrillation, thromboembolic disease and peripheral artery disease. 84.6% of patients who developed hypertension, 76.9% of those who developed hyperlipidemia and 66.6% of those who developed diabetes mellitus were on treatment with new generation TKI. 100% of those who developed AF, PAH and PAD were with new generation TKI. Only 33.3% of patients who developed ischemic heart disease and stroke were taking new generation TKIs.

DOI: 10.12890/2022_V9Sup1

Conclusions: New generation tyrosine kinase inhibitors lead to an increased vascular risk compared to treatment with classic TKI.

2324 / #RF023

CARDIOVASCULAR MORTALITY IN A GENERAL POPULATION: THE HORTEGA STUDY

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Background and Aims: The Hortega Study is a population-based survey among adults residing in Valladolid, Spain. It integrates baseline information of vascular risk factors with 18 years of follow-up for the assessment of mortality and incidence of vascular events.

Methods: In 2002 the presence of vascular risk factors was studied in a polystratified and representative sample of the general population (n=1.512). This study included follow up by electronic medical records, reporting observed mortality for ten years to compare it with expected mortality according to SCORE function in countries with low vascular risk. The sample was divided into quartiles depending on that function.

Results: Tables 1 and 2 show observed mortality with its confidence interval at 95 % and expected mortality according to SCORE. There were no differences statistically significant neither in male (p=0.55) nor women (p=0.999).

Conclusions: In our poblation SCORE function correctly predicts cardiovascular mortality, in both women and men, in the four quartiles of cardiovascular risk.

	Observed cardio-vascular deaths	Observed cardio-vascular mortality (%)	IC 95% mortality		Expected mortality according to SCORE (%)
Quartile 1	0	0%	0%	3.23%	0.1%
Quartile 2	0	0%	0%	3.31%	0.6%
Quartile 3	12	7.2%	3.59%	13.86%	4.4%
Quartile 4	22	19.6%	11.98%	30.51%	16.1%

#RF023 Table 1: Men.

	Observed cardio-vascular deaths	Observed cardio-vascular mortality (%)	IC 95% mortality		Expected mortality according to SCORE (%)
Quartile 1	0	0%	0%	3.2%	0.0%
Quartile 2	0	0%	0%	3.21%	0.1%
Quartile 3	4	2.3%	0.71%	7.23%	2.6%
Quartile 4	16	11.7%	6.44%	20.26%	12.8%

#RF023 Table 2: Women.

2362 / #RF024

RISK FACTORS AND CARDIOVASCULAR MORTALITY IN A GENERAL POPULATION: THE HORTEGA STUDY

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Background and Aims: The Hortega Study is a population-based survey among adults residing in a health area of Valladolid, Spain, which integrates baseline information of vascular risk factors with 18 years of follow-up for the assessment of mortality and incidence of vascular events.

Methods: In 2002, the presence of vascular risk factors was studied by a clinical interview in a polystratified example of 1512 people, representative of the general population, with periodic observational follow-up by review of electronic medical records.

Results: This table shows the cardiovascular risk factors and the mortality after 18 years of follow-up.

Conclusions: A 6% between 36-65 year old men and 92% between 66-84 year old men have high/very high vascular risk, compared to a 0% and 77% of women, respectively.

Smoking*	Diabetes *	Total cholesterol (mg/dL) §	Systolic blood pressure (mmHg) §	High/very high vascular risk (SCORE ≥ 5%)*	High/very high vascular risk (SCORE ≥ 5%)*
MEN: 14-35 year old (n=182) 36-65 year old (n=308) 66-84 year old (n=254)	 24 (13,2) 42 (13,6) 9 (3,5)	 4 (2,20) 18 (5,84) 48 (18,90)	 181 211 199	 121 128 145	 0 (0,0) 18 (5,8) 234 (92,1)
WOMEN: 14-35 year old (n=170)	17 (10,0%)	0 (0,00)	178	109	0 (0,0)
36-65 year old (n=321)	32 (10,0%)	8 (2,49)	205	120	0 (0,0)
66-84 year old (n=256)	2 (0,8%)	36 (14,06)	219	148	197 (77,0)
* number of patients n (%); § average values					

#RF024 Table 1.

2472 / #RF025

ANTIAGREGANT RELATED ANEMIA IN PERIPHERAL ARTERIAL DISEASE

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Background and Aims: To analize the prevalence of anemia in patients with sintomatic and stable peripheral arterial disease (PAD) and its relation with the deterioration of their clinical status.

DOI: 10.12890/2022_V9Sup1

Methods: We carried out a cross-sectional observational study of anemia prevalence in a sample of patients that included every person cited in February and March of 2020 at our PAD specialist. The basal charasteristics of the patients were studied as well as their blood test results, treatment and Fontaine classification. They were divided in anemic and non-anemic and a clinical deterioration was defined as a Fontaine category change in comparison with the last six months.
Results: Of a total of 104 patients, 25 had anemia (Group A) and 79 did not (Group B). The mean age was 69.3 ± 2.3 and 68.7 ± 2.1 years old respectively. Between both groups there were statistically significant differences in haemoglobin levels and smoking rate, there were not significant differences in diabetes, hypertension, hyperlipidemia, atrial fibrillation, venous thromboembolic disease, cirrhosis or cancer. Haemoglobin levels results were 11,646 ± 1.1 g/dL in Group A and 14,796 ± 1,377 g/dL in Group B (p< 0.0001). In Group A a 12% were active smokers and in Group B a 46.8% (p=0.004). Acetylsalicylic acid (p=0,02) and acenocoumarol (p=0.011) showed a statistically significant correlation with the development of anemia. We did not observe correlation between anemia and clinical deterioration (p=0.068).
Conclusions: Antiaggregants and anticoagulants chronic use may induce mild anemia in patients with PAD. The pressence of such anemia in stable sintomatic PAD is not related with a clinical worsening of the disease.

2193 / #RF026

NUTRITIONAL STATUS AND SARCOPENIA SCREENING IN ELDERLY PATIENTS AFFECTED BY COVID-19

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Background and Aims: Analysis of nutritional status and prevalence of probable sarcopenia in a population of elderly patients surviving Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) infection.
Methods: A prospective longitudinal study of elderly patients diagnosed with COVID-19 from March 1 to May 31, 2020. Diagnostic criteria for sarcopenia (EWGSOP 2018) that uses low muscle strength as the main parameter measured by dynamometry (16 kg in women and <27 kg in men). Follow-up: 12 months. Visits: 3 months, 6 months, and 12 months after acute infection.
Results: 60 patients. Mean age 75.43 years (± 6.9 DS). Sex: 51.1% V and 48.9%. Barthel of 91.1 (mild dependence). Charlson index or comorbidity 4.7 (± 2.1 DS). Anthropometric data. Evaluation of muscle strength by dynamometry and % of probable sarcopenia: 3 months: 21.9 Mens (76.4% probable sarcopenia) and 11.8 Women (90%); 6 months: 23.92M (68.4%) and 12.21W (86.67%); 12m: 24.2 M (63.16%) and 13.25W (83.4%).
Conclusions: Improvement in muscle strength throughout follow-up . Dynamometry levels well below reference figures at European level with a high prevalence of probable sarcopenia especially in women. Confirmatory test (measurement of muscle mass) needed. A nutritional evaluation is essential in this profile of patients both in the acute picture and subsequent follow-up and supplement those at risk.

2232 / #RF027

CHARACTERISTICS AND PROGRESS OF PATIENTS WITH SARS-COV-2 INFECTION IN RENAL REPLACEMENT THERAPY IN A THIRD-LEVEL HOSPITAL

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Background and Aims: To describe the characteristics and evolution of patients receiving renal replacement therapy infected with SARS-CoV-2 in our center.
Methods: Prospective observational study of patients with renal replacement therapy in the province of Malaga infected with SARS-CoV-2 from March 2020 to March 2021. Patients with SARS-CoV-2 infection on hemodialysis or peritoneal dialysis were included. Data analysis was performed with the statistical program SPSS version 25. Quantitative variables are expressed as mean ± standard deviation and qualitative variables as percentages. The comparison was made using the Student's test.
Results: 58 patients were included, 62.1% men (36) with a mean age of 71.81 (± 12.86). Mean days of hospitalization 15.88 (12.56). 94.8% (55) received renal replacement therapy by hemodialysis. Main causes of chronic kidney disease: diabetic nephropathy 20.7% (12) followed by nephroangiosclerosis 19% (11). Main antecedents: arterial hypertension 89.7% (52), hyperlipemia 60.3% (35), diabetes mellitus 41.4% (24) and heart failure 58.6% (34). Regarding symptoms, 69% (49) presented cough, 62.1% (36) dyspnea, and 51.7% (30) fever. Treatments used: corticosteroids 75.9% (44) and tocilizumab 19% (11). Analytically, lymphopenia 869.48 x10^9/L (±586), IL-6 68.33 pg/mL (± 106), CRP 82.96 mg/L (±76), hyperferritinemia 1203 ng/mL (± 1269) and elevated D-dimer 3928 ng/mL (± 9230). 70.7% (41) required admission and 32.8% (19) died. 8.6% (5) presented vascular access thrombosis, 43.1% (25) hyperglycemia, 20.7% (12) nosocomial infection and 6.9% (4) admission to the ICU.
Conclusions: SARS-CoV-2 infection has a high impact on the mortality of patients receiving renal replacement therapy, most requiring hospital admission and intensive treatment.

 DOI: 10.12890/2022_V9Sup1

2239 / #RF028

THERAPEUTIC STATEGIES INCLUDING REMDESIVIR IN HOSPITALISED PATIENTS WITH SARSCOV-2 HIPOXEMIC PNEUMONIA: REAL WORLD DATA

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Background and Aims: Objective – To evaluate the impact of the use of remdesivir (RDV) as a treatment strategy for hypoxemic SARS-CoV-2 Pneumonia

Methods: Of 1155 consecutive adult subjects hospitalised with SARS-CoV-2 infection, we selected those with cumulative evidence of: 1. SARS-CoV-2 infection (positive PCR test); 2. Radiologically confirmed pneumonia; 3. Hypoxemia and need of supplementary O2 (≥ 24%). We compared those treated with RDV versus those receiving Standard of Care (SoC), in terms of mortality, length of hospital stay and secondary effects of treatment.

Results: 843 subjects were treated with RDV and 312 with SoC. In the RDV group, 97.1% patients were concurrently receiving dexamethasone (DEXA). In the RDV group the mean age was 69.7 (±14.4) years with 61.8% male prevalence; the SoC group registered mean age of 73.9 (±14.5) years and 49.7% male prevalence. Both groups had similar prevalence of diabetes, hypertension and chronic lung disease; overweight was significantly more prevalent in the RDV group whereas immunosuppressant conditions and smoking were more frequent in the SoC subjects. Concerning the proposed outcomes: RDV patients had a mean Hospital Stay 4.25 days inferior to SOC subjects (p=0.002); The relative risk of death during hospital stay in the RDV group was 0.47 [0.38;0.60] when compared to the SoC group Nine SoC subjects (0.03%) and 12 RDV patients (0.014%) had secondary effects attributable to treatment drugs

Conclusions: The use of RDV with DEXA in SARS-CoV-2 hypoxemic pneumonia significantly reduced mortality and hospital stay, and registered no significant side effects in a real life cohort of consecutively enrolled patients.

2240 / #RF029

ADMISSION GLYCAEMIA AS A PROGNOSTIC FACTOR IN COVID-19 PATIENTS

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Background and Aims: Admission hiperglycaemia has been considerated as a risk factor for death in COVID-19 patients. The aim of this study is analyze the role of admission glycaemia in our cohort.

Methods: This is a retrospective study involving 481 patients hospitalized in Cordoba at the Internal Medicine department of Reina Sofia University Hospital between March 2020 and February 2021. Patients were categorized into three groups according to admission glycaemia: <140 mg/dl, 140-180 mg/dl and >180 mg/dl. They were compared different variables: epidemiological, laboratory tests, treatements and complications.

Results: The prevalence of diabetes was 33.5% and the admission hiperglycaemia, defined as >140 mg/dl, was 36.4% regardless of prior history of diabetes. Analizing medical history, there were differences in peripheral arterial disease (p=0.006), stroke (p=<0.001) and dementia (p=0.044). However, in laboratory tests and treatements only the levels of LDH (lactate dehydrogenase) were significantly different (p=0.013). When we evaluate complications, there was more use of mechanical ventilation (p=0.001) and death (p=0.007) in patients with glycaemia >180 mg/dl.

Conclusions: Admission hyperglycaemia could play a crucial role in the poor prognosis of some patients hospitalizated with COVID-19, characterized by LDH (lactate dehydrogenase) leves and suffering more complications during the hospitalizations like use of mechanical ventilation or death.

2353 / #RF030

AN OBSERVATIONAL STUDY OF THE PANDEMIC SITUATION AND OUTCOMES OF COVID-19 PATIENTS IN THE UNIVERSITY HOSPITAL, LITHUANIA

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Background and Aims: As COVID-19 pandemic affected every country worldwide and overburdened healthcare systems, the

DOI: 10.12890/2022_V9Sup1

assessment of each country situation and experience in dealing with the pandemic is essential to cope with another COVID-19 wave or another pandemic more efficiently. The aim of this study was to determine the main characteristics of COVID-19 patients hospitalized in Vilnius University Hospital Santaros Klinikos (VUHSK).
Methods: COVID-19 positive adults hospitalized in VUHSK, Lithuania, were included in the cohort study between March 2020 and December 2021. Descriptive statistics were used for demographical, clinical data and outcome analysis.
Results: Among 495 patients, 52.9% were women. Age median was 55 (IQR 43-65) years. At least one comorbidity had 61.2% of patients. The most common – arterial hypertension (51.5%) and obesity (27.7%). Pneumonia was diagnosed for 79.4% of patients. Oxygen therapy was needed for 58.8% of patients. One third of patients (33.1%) were treated with intravenous dexamethasone, 23.6% received the combination of hydroxychloroquine and azithromycin, 18.6% – remdesivir, 57.2% - antibiotic therapy. Fifty-four (10.9%) patients were transferred to high dependency (HDU) or intensive care (ICU) units. High flow oxygen therapy was used for 5.9%, mechanical ventilation – for 2.8% of patients. The median of total hospitalization duration was 10 days (IQR 7-14), the median of duration in ICU/HDU - 8 days (IQR 5-14). Overall, 21 patients (4.24%) died.
Conclusions: Most COVID-19 patients had comorbidities and were diagnosed with pneumonia. For more than half of them oxygen therapy was needed. Only minor proportion of patients required treatment in ICU/HDU, and the mortality rate was sufficiently low.

2396 / #RF031

CIRCADIAN PATTERNS ON ACUTE MYOCARDIAL INFARCTION: IMPACT OF COVID-19 PANDEMIC IN SOUTHERN SPAIN

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Background and Aims: Several manuscripts have studied the temporality of AMI incidence. However, there is limited evidence on the impact of the COVID-19 pandemic on the incidence pattern. The aim was to verify whether a circadian pattern exists, determine the impact of the COVID-19 pandemic and to investigate differences according to diagnosis (ST and non-ST-elevation AMI - STEMI and NSTEMI).
Methods: Observational time series study, which included 33,897 patients admitted for AMI, STEMI, and NSTEMI in public hospitals in Andalusia (Spain), between 2016 - 2019 (Period A) and 2020 (Period B). Multi-Component and Single Cosinor analyses were performed to obtain the temporal patterns of AMI. Sub-analysis were carried out according to diagnosis.
Results: A total of 33,897 patients (77.4% male) were included. A significant circadian pattern in the incidence of AMI was obtained for both analysed periods. The acrophase was at 12:30h in period A and at 12:00h for period B, showing an increase in amplitude of 6.87; although there was a tendency for change, the differences were not significant (p=0.18). There was a non-significant delay in the peak incidence (p=0.63) for STEMI, decreasing in amplitude of 4.85, while there was an upward trend in amplitude of 11.62 (p=0.18) for NSTEMI.
Conclusions: A circadian pattern of AMI incidence is observed. A trend of earlier, but not significant, peak incidence is observed for AMI and NSTEMI during the pandemic; no significant changes are observed for NSTEMI. Despite the strong impact of the pandemic on health management, AMI maintains its temporal variation in incidence.

2594 / #RF032

INTERLEUKIN-6 (IL-6) CAN PREDICT CLINICAL OUTCOMES BETTER THAN OTHER INFLAMMATORY BIOMARKERS IN PATIENTS WITH COVID-19

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Background and Aims: Interleukin-6 (IL-6) has been known to be involved in immune regulation, inflammatory response, and metabolism. It is also recognized as the major cause to underscore the pathology of severe COVID-19 patients. However, it remains to be seen if IL-6 is superior to other inflammatory biomarkers in ascertaining clinical severity and mortality rate. This study aimed to determine the value of IL-6 as a predictor of severity in COVID-19 patients and compare it with other pro-inflammatory biomarkers in the South Asian region.
Methods: An observational study was conducted, including all adult SARS-CoV-2 patients who had undergone IL-6 testing from December 2020 to June 2021. The patients' medical records were reviewed to collect demographic, clinical, and biochemical data.
Results: Out of the 393 patients who underwent IL-6 testing, 203 were included in the final analysis with a mean (SD) age of 61.9 years (12.9) and 70.9% (n=144) being male. Fifty-six

 DOI: 10.12890/2022_V9Sup1

percent (n=115) subjects had critical disease. IL-6 levels were elevated (>7pg/ml) in 160 (78.8%) patients. Levels of IL-6 were correlated with age, neutrophils to lymphocyte ratio, D-dimer, C-reactive protein, ferritin, lactate dehydrogenase, length of stay, clinical severity, and mortality. All the inflammatory markers were significantly increased in critically ill and expired patients ($p<0.05$). The receiver operator curve showed that IL-6 had the best area under the curves (0.898 and 0.747) compared to other pro-inflammatory biomarkers for mortality and clinical severity respectively.
Conclusions: Study findings show that IL-6 is an effective marker of inflammation and can guide clinicians in recognizing patients with severe COVID-19 earlier.

2640 / #RF033

METHYLPREDNISOLONE PULSES IN PATIENTS WITH SEVERE COVID-19 PNEUMONIA DETERIORATING DESPITE DOUBLE IMMUNOMODULATORY TREATMENT: CASE-CONTROL STUDY

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Background and Aims: Patients with severe COVID-19 pneumonia admitted to the intensive care unit (ICU) have significant morbidity and mortality. Methylprednisolone pulses were evaluated in severe COVID-19 pneumonia patients deteriorating despite double immunomodulatory treatment.
Methods: Retrospective analysis of patients with deteriorating severe COVID-19 pneumonia despite double immunomodulatory regimens in hospital ward of a tertiary hospital, Athens, Greece. Deteriorating severe COVID-19 pneumonia was defined as: new fever or need for higher FiO2 and inflammatory markers increase [CRP, interleukin-6] in patients already receiving non-invasive high flow supplemental oxygen (>15 l/min). Double immunomodulatory regimens included dexamethasone 6 mg once daily with either baricitinib or tocilizumab or anakinra. Methylprednisolone pulses (MP) were intravenous doses of 1.5 – 2.5 mg/kg/day for 1-3 days. Control group included patients with deteriorating severe COVID-19 pneumonia not receiving MP. Intubation and mortality were evaluated.
Results: From September 2021 to February 2022, 26 in the MP and 12 patients in control group were recorded. Mean age 64.5 years (± 2.81) vs 62.8 (± 16.9), male sex 65.4% vs 50%, unvaccinated to SARS-CoV-2 84.6% vs 75%, at least one comorbidity 73.1% vs 83.3% of patients in the MP and control group, respectively. High-flow nasal oxygen device was used in 42.3% and 33.3% of patients, respectively. MP were administered in median day 13 (IQR: 9.5 – 14) from symptoms onset. 34.6% of MP group were intubated and 15.4% died, compared to 66.7% and 58.3%, respectively, in the control group.
Conclusions: MP could be a therapeutic choice for deteriorating severe COVID-19 pneumonia in medical wards.

2475 / #RF034

A DESCRIPTIVE STUDY ABOUT ACUTE HEPATIC PORPHYRIAS (AHP) IN A TERTIARY CARE INTERNAL MEDICINE DEPARTMENT.

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Background and Aims: We describe clinically five patients suffering from AHP.
Methods: Retrospective observational descriptive study.
Results: We present five patients diagnosed between their twenties and thirties. Three patients with hereditary coproporphyria. Two are female and have the Cys239X mutation in heterozygosis in the gen CPOX and had multiple hospitalisations due to abdominal pain related with menstruation and infections. One male patient with deletion in the CPOX gene diagnosed as a result of abdominal pain and polyneuropathy right after surgery. Regarding intermittent acute porphyria (AIP), a woman with a pathogenic change c.840841 in HMBS gene. She suffered multiple hospitalisations due to recurrent abdominal pain which decreased after the initiation of givosiran. Lastly, an Afro-American woman affected by porphyria variegata with the p.Arg59Trp mutation in the PROX gene. She presented paroxistic abdominal pain, photosensibility and paresthesias during menstruation or infections.
Conclusions: Porphyrias are metabolic diseases regarding biosynthesis of Heme group. They are characterized by neurovisceral, cutaneous and psychiatric symptoms. Because all the symptoms are quite unspecific, there's usually a delay in the diagnosis. They are autosomal dominant illnesses with low penetrance and predominantly affect women. Genetic consultation is mandatory. Drugs, alcohol, tobacco, infection, starvation, stress and hormonal factors are triggers to produce abdominal pain. Gestation needs to be carefully monitored due to high risk of abortion during the perinatal time. Hemine is the treatment of choice when faced with abdominal pain and it can be administered safely in pregnant women. Givorisan is a new treatment indicated in patients affected by AIP with recurrent abdominal pain crisis.

DOI: 10.12890/2022_V9Sup1

2565 / #RF035

AMYLOIDOSIS MORTALITY STUDY IN THE ÁVILA HEALTHCARE COMPLEX

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Background and Aims: Analysis of mortality in diagnosed cases of amyloidosis from 2012 to 2021.
Methods: Retrospective observational descriptive study where the mortality of patients with suspected or confirmed diagnosis of amyloidosis is analysed.
Results: 58 cases of amyloidosis were collected, out of which, death was certified in 32 of them (55.7%). 65.6% were men, whereas 34.4 were women. The mean age of diagnosis in the deceased was 73.31 and the mean age of death was 74.68. Regarding associated diseases, a higher mortality was observed in patients suffering from Diabetes Mellitus, Kidney Disease, High blood pressure and three or more comorbidities. According to the classification of amyloidosis, mortality in patients corresponded to 21 cases of senile amyloidosis (65.6 %), 6 cases secondary or AA (18.8%), 4 cases primary or AL (12.5%), 1 unknown (3.1%).
Conclusions: Mortality of patients diagnosed with amyloidosis was 55.7%. A higher mortality, statistically significant, was observed in men compared to women. The main diseases associated to higher mortality were diabetes mellitus, chronic kidney disease, arterial hypertension and having three or more comorbidities.

2638 / #RF036

DESCRIPTIVE STUDY OF AMYLOIDOSIS IN THE HEALTHCARE COMPLEX OF ÁVILA

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Background and Aims: Analysis of cases of amyloidosis diagnosed from 2012 to 2021.
Methods: Retrospective observational descriptive study of patients with suspected or confirmed diagnosis of amyloidosis. Discharge reports with a primary or secondary diagnosis of amyloidosis were evaluated.
Results: 58 cases with Amyloidosis were collected, 19 confirmed, against 39 suspected. A higher prevalence was observed in men. Confirmed diagnoses are under 62.6 of average age, whereas suspected ones are under 83.2. The service that made the majority of diagnosis of amyloidosis was Cardiology (43.1%), being 92.3% of them suspected cases. The department that confirmed the majority of cases was Nephrology, with 19% of the whole, confirming 81.8% of them.The most affected organ was the heart in suspected cases, while it was the kidney in confirmed cases.The definitive diagnosis was in 11 cases by renal biopsy, 2 digestive biopsy, 2 abdominal fat biopsy, 1 rectal mucous biopsy, 1 endomyocardial biopsy, 1 lingual biopsy and 1 autopsy. Regarding the type of amyloidosis, 65.5% were senile, 15.5% secondary or AA amyloidosis, 13.8% primary or AL amyloidosis, and 5.2% were unknown.
Conclusions: The diagnosis of amyloidosis in our study is more frequent in males and is not confirmed in most cases, being the Nephrology Service who presents the majority of confirmed cases. Diagnosis is earlier in confirmed cases. The most affected organ has been the heart, since there is a higher prevalence of senile amyloidosis in our hospital.

2715 / #RF037

ACQUIRED HEMOPHILIA: STUDY OF 3 CASES

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Background and Aims: Acquired Hemophilia (HA) is an autoimmune hemorrhagic disease due to the presence of autoantibodies to Factor VIII, which can be serious given the abundance of bleeding, its localization and the abruptness of its onset. Through 3 observations, we will specify the clinical, therapeutic and evolutionary particularities of this entity.
Methods: It's a retrospective study of 3 cases of HA confirmed by a prolonged aPTT uncorrected by the control, a decreased factor VIII of 1% and an anti-factor VIII antibodies level lower than 30 IBU. We collected for each interview data, clinical and paraclinical findings, and data of the follow-up.
Results: N°1: A 63-year-old with a history of hemostatic procedure for dental extraction, admitted for spontaneous ecchymosis of the thigh. The diagnosis was retained without any underlying cause. Treatment with high-dose corticosteroid therapy (HDCT) was initiated without biological improvement. Cyclophosphamide was introduced, with same work-up until the 7th session. A switch to Rituximab was therefore discussed. N°2: A 43-year-old admitted for extensive postpartum bruising. An HA and a Sjögren's syndrome were retained.The patient received HDCT with partial normalization of the work-up. N°3: A 39-year-old with Still's disease admitted for diffuse ecchymotic lesions. The diagnosis of HA was retained as well as a relapse of Still's disease.The evolution after six weeks of HDCT was favorable.
Conclusions: For a similar severity of HA and similar treatment, the evolution depended on whether the form was idiopathic or associated with inflammatory/automimmune diseases. The latter

 DOI: 10.12890/2022_V9Sup1

would respond better to treatment, although the number of patients is small and larger series would be necessary to conclude.

2221 / #RF038

HAEMOPHAGOCYTIC SYNDROME IN A THIRD-LEVEL HOSPITAL DURING 15 YEARS, DESCRIPTION OF OUR DATA

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Background and Aims: Hemophagocytic syndrome (HS) is an underdiagnosed and severe entity that requires high level of suspicion to diagnose it. Our aim is to describe the clinical and epidemiological characteristics of patients admitted to a third-level hospital because of HS during 15 years.

Methods: This is a descriptive retrospective study. Non-pediatric patients admitted in our hospital between 2005 and 2020 were included according to diagnostic criterion (HLH, HScore) and/or whether they received treatment for HS.

Results: 33 patients were identified, 48.5% admitted to Internal Medicine ward (Table 1), with a mean stay of 30.76 days. Their mean age was 47.52 years (range 14-79) and 51.5% were women. 78.8% were admitted due to fever, although 100% presented it. 60% had splenomegaly, 48.5% hepatomegaly and 42.4% lymphadenopathy. Analytically see the main data [available] in Table 1. 30.3% were due to infections and 24.24% to autoimmune diseases. The mean HLH-2004 was 4.48 and the HScore 219, with a probability of 80.68%. 63.6% improved, the rest died during admission.

Conclusions: Compared to previous studies, our patients' mean age is similar, with a slight predominance in women. Infections are the first cause, with a disparity in second and third place: autoimmune and idiopathic disease, respectively. Pregnancy is over-represented. Clinical presentation is similar to what is described, although our patients presented less hepatomegaly. It is essential to look for the triggering cause in order to initiate an early treatment.

Haemoglobin (g/dl)	8
Platelets (x109/l)	54.4
Leukocytes (x109/l)	9075
Triglycerides (mg/dl)	410
Ferritin (ng/ml)	22549
Lactate dehydrogenase (U/l)	1448

#RF038 Table 1.

2384 / #RF039

VASCULAR HEALTH IN SUBJECTS WITH RHEUMATOID ARTHRITIS: ASSESSMENT OF ENDOTHELIAL FUNCTION INDICES AND SERUM BIOMARKERS OF VASCULAR DAMAGE

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Background and Aims: The cardiovascular risk in patients with rheumatoid arthritis is 2 times higher than that in individuals of the same age and sex. The aim was to analyse the degree of endothelial dysfunction, the atherogenic immunoinflammatory serum background and the relationships among some vascular indices, cardiovascular comorbidities, and cognitive performance in subjects with rheumatoid arthritis (RA).

Methods: All consecutive patients with a rheumatoid arthritis diagnosis admitted to the Rheumatology Ward of Policlinico of Palermo were enrolled from July 2019 to September 2020. We evaluated our patients' cognitive functions by administering the Mini-Mental State Examination (MMSE). Reactive hyperaemia index was evaluated for assessment of endothelial function. Serum levels of angiopoietin 2, osteopontin and pentraxin 3 were assessed by blood collection.

Results: 58 consecutive patients with RA and 40 control subjects were analysed. At univariate analysis patients with RA showed lower RHI and MMSE and higher AIX. Patients with rheumatoid arthritis showed higher mean serum values of pentraxin 3, osteopontin and angiopoietin 2. Multivariate logistic regression analysis showed increased CRP values, AIX and EF, low RHI values, were predictive of the presence of rheumatoid arthritis. Logistic regression also showed a significant association between pentraxin 3 and AR and between angiopoietin 2 and the disease.

Conclusions: Our case-control study showed that RA patients' cardiovascular risk is higher than in subjects of the same age and sex not affected by RA. The reason for this increased risk seems to be linked to endothelial dysfunction (ED). The results showed that RA patients, have lower RHI values and higher AIX values, defined as "surrogate" cardiovascular risk markers.

 DOI: 10.12890/2022_V9Sup1

2538 / #RF040

A NOVEL COMBINATION FOR THE TREATMENT OF GUILLAIN-BARRÉ SYNDROME (GBS): EXPERIENCE AT A PRIVATE HOSPITAL IN PUEBLA, MEXICO.

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Background and Aims: Therapeutic plasma exchange (TPE) has shown to hasten recovery in patients with GBS. The Committee of the American Society for Apheresis (ASA) recommends TPE up to 6 sessions in severe cases of GBS (A1 recommendation), or Intravenous immunoglobulin (IVIG), or TPE followed by IVIG. The study's objective was to show the outcome of disability grade and cost-effectiveness in a retrospective study of four selected patients with severe GBS, treated with TEP + IVIG at a private hospital in Puebla, Mexico.
Methods: The study retrospectively analyzed clinical data of four selected GBS patients who were treated with 3 TPE sessions (using apheresis system) + IVIG (low dose 0.5 g/kg/day for 5 consecutive days). Fluid replacement with albumin 5%, and additional treatment with steroids. The medical records were analyzed for demographic data, indications for TPE, results of the treatment, costs and complications. In addition, the patient's muscle strength progress was video recorded.
Results: After 3 weeks, the treatment significantly decreased GBS disability score and improved Medical Research Council muscle strength scores (p=0.002). None adverse events were reported in any procedure. Difficulty in jugular venous access wasn't observed.
Conclusions: There was no difference in efficacy with 3 TPE sessions and the combination with IVIG in comparison to ASA recommendations. Both therapies combined showed potential benefits and cost effectiveness. A study with a higher number of patients is needed in order to strengthen the results and provide more accurate suggestions for patients.

2628 / #RF041

FAST-TRACK PATHWAY FOR GIANT CELL ARTERITIS USING PROBABILITY SCORING PROFORMA: QUALITY IMPROVEMENT PROJECT

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Background and Aims: Giant cell arteritis (GCA) is an organ-threatening disease requiring urgent assessment. Due to its protean presentation fast track clinics proved discriminating GCA and mimics promptly. Recent development of Southend pre-test probability score algorithm (PTPS) stratifies the suspected GCA patients into low (LRC) intermediate (IRC) and high risk (HRC) categories and paves the way to exclude GCA in LRC patients without further interventions. Aiming to establish a fast-track GCA pathway (FTP) using PTPS to secure GCA diagnosis and exclude mimics. This avoids unnecessary Glucocorticoid (GC) exposure, reduces hospital stay and prevents further investigations.
Methods: Sixteen suspected GCA inpatients were stratified in to LRC, IRC and HRC. GCA diagnosis was based on clinical, imaging or temporal artery biopsy. Total hospital stay, cumulative dose of GC exposure at discharge was assessed.
Results: Of 16 patients, 5 (31%) were confirmed GCA with mean age 69 years. 60% were females. Mean referral time to rheumatology was 5.18 days and 6.3 days to diagnosis. Mean C-reactive protein in GCA was 117.6 mg/L and non GCA was 25.18 mg/L. Among the 11 (69%) non GCA patients, 7 (64%) LRC and 4 (36%) IRC. All the GCA patients were in IRC while no GCA patients were in LRC. In non-GCA patients with LRC the mean cumulative dose of GC exposure during hospital stay was 170mg.
Conclusions: Establishing a FTP based on a pre-test probability scoring algorithm for GCA would give a prompt GCA diagnosis. This in-turn would reduce hospital stay/costs and same day safe discharge for LRC patients while avoiding unneccasary GC exposure.

2290 / #RF042

IMPLEMENTATION OF MULTIFACETED INTERVENTION AMONG INTERNAL MEDICINE RESIDENTS WITH AUDIT AND EDUCATIVE DATA FEEDBACK SIGNIFICANTLY REDUCES LOW-VALUE CARE IN HOSPITALIZED PATIENTS

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Background and Aims: The dissemination of recommendations about low-value care alone may not lead to physicians' behavioral changes. The aim of this study was to evaluate whether a multifaceted behavioral intervention among internal medicine residents could reduce low-value care in hospitalized patients.
Methods: A pre-post quality improvement intervention was conducted at the Internal Medicine Division of La Tour hospital (Geneva, Switzerland) from May 2020 to October 2021. The intervention period (3 months) consisted in a multifaceted education with audits and educative feedback about low-value care. The pre- and post-intervention periods including the same 6 calendar months were compared in terms of number of blood sample per patient day, prescription rates of benzodiazepine (BZD) and proton pump inhibitor, as well as safety indicators including potentially avoidable readmissions, premature deaths and complications.
Results: A total of 3,400 patients were included in this study. 1,095 (32.2%) and 1,155 (34.0%) were respectively hospitalized during the pre- and post-intervention periods. Patient characteristics were comparable between the two periods. Only the number of blood tests per patient day and the BZD prescription rate at

DOI: 10.12890/2022_V9Sup1

discharge were significantly reduced in the post-intervention phase (pre, 0.54±0.43 vs post, 0.49 ± 0.60; p=<0.001 and pre, 4.2% vs post, 1.7%; p=0.003 respectively). Safety indicators analyses revealed no significant differences between the two periods of interest.
Conclusions: Our results demonstrated a modest but statistically significant effect of multifaceted educative intervention in reducing low-value care in hospitalized patients. Limiting low-value services is very challenging and additional long-term interventions are necessary for wider implementation.

2358 / #RF043

RISK FACTORS FOR READMISSION IN A INTERNAL MEDICINE WARD

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Background and Aims: This study intends to evaluate how social characteristics and to determine a group of patients hospitalized in an Internal Medicine ward, risk factors predisposing to readmission during the period of one year.
Methods: Retrospective and longitudinal study of a cohort of patients admitted to an Internal Medicine ward during the year 2020. A Kaplan-Meyer survival analysis and Cox regression were performed for predictors of hospitalization at 30, 180 and 365 days.
Results: A sample of 234 patients was obtained, 58.1% female and with a mean age at admission of 79.4±14.1 years. The average time of internment was 13.0±9.6 days. Dependency for daily life activities was a significantly predictor of readmission in all dependency segments, but particularly related, or unique, to 30-day readmission, when (27.4±2 days; p=0.03) adjusted for the reason for admission, sex and origin. Patients admitted primarily for heart failure, or with its decompensation due to an underlying pathology, are those most likely to be readmitted at 180 and 365 days (149.9±7.2 days, p=0.02). It was found that patients with clinical improvement in the first 72 hours after acceptance were less likely to be readmitted at 180 and 365 days (p<0.01).
Conclusions: The data can be important from the timely discharges, as soon as the clinical resolution.Patients with cardiac function are those who are readmitted the most, and there is consensus on the increase in life expectancy and functional reserve with each readmission.

2451 / #RF044

ANALYSIS OF PROCEDURES PERFORMED IN A POLYVALENT MEDICAL DAY HOSPITAL DURING 2021

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Background and Aims: Polyvalent Medical Day Hospital (PMDH) is an alternative to conventional hospitalization. We analyzed the number of procedures performed in the Polyvalent Medical Day Hospital during the year 2021.
Methods: Retrospective and descriptive study with data collected by internal registration of procedures performed in the area of treatments/procedures (treatments, biological drugs, nursing procedures, invasive techniques), of a Polyvalent Medical Day Hospital from January 1st 2021 to December 31st 2021.
Results: A total of 5598 procedures/treatments have been registered during 2021. The month with the most procedures is November (627) and the least is January (365). Among the treatments, the most widely administered drugs were those in the group of biological drugs with a total of 1442 treatments, the most common being infliximab (543), omalizumab (466), vedolizumab (141) and ustekinumab (108). At the group of other treatments, a total of 1323 were administered, with the most frequent being intravenous iron (442), followed by phlebogamma (106), intravenous antibiotics (110), intravenous furosemide (109), red blood cells transfusion (99). A total of 2740 nursing procedures were performed, the most frequent being: analytical (1566), peripheral venous access (825), automatic blood pressure monitoring (145), EKG (93). The invasive techniques were: paracentesis (61), lumbar puncture (18), thoracentesis (13).
Conclusions: In our study, as described in the literature, at the day hospital patients who need certain chronic treatments (mainly biological treatments) or procedures are offered the same services they would have if they were hospitalized but without the need for admission, so reducing the risks related to hospitalization as well as costs.

2454 / #RF045

THE EFFECTS OF QUALITY OF SLEEP ON JOB STRESS AND HEALTH STATUS OF CLINICAL NURSES

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Background and Aims: 75% of South Korean nurses works in shift. Shift work causes sleep deprivation, daytime dysfunction, fatigue, and can affect job stress and health status. The purpose of this study was to confirm the effect of sleep quality on job stress and health status.
Methods: The participants were 150 nurses with 6 months

DOI: 10.12890/2022_V9Sup1

shift-working experience. Sleep quality was measured by the Pittsburgh Sleep Quality Index (PSQI). Job stress was measured by the Korean Occupational Stress Scale (KOSS). Health status was measured by the Korean Stress Response Scale.
Results: Seventy two percent of participants on shift work were sleepless. In the relationship between sleep level and job stress, difficulties in subjective quality (r=25 and p=0.00), duration (r=0.17, p=0.04), disturbance (r=0.29, p=0.00), and daytime dysfunction (r=0.32, p=00) were associated with the higher job stress. In the relationship between sleep quality and physical health status, the nurses with difficulties in subjective quality (r=0.63, p=.00), latency (r=0.53, p=0.00), efficacy (r=0.17, p=0.03), disturbance (r=.65, p=.00), use of sleeping medication (r=.21, p=.00), and daytime dysfunction (r=0.32, p=0.00) felt more physical symptoms. And the relationship between sleep quality and psychological health status was found to experience psychological symptoms more as they felt difficult in subjective quality (r=0.47, p=.00), latency (r=0.48, p=0.00), disturbance (r=0.47, p=.00), and daytime dysfunction (r=0.24, p=0.00).
Conclusions: The low quality of sleep of hospital nurses had a negative effect on job stress and health status, suggesting that strategies for managing job stress and health status of shift working nurses should include effective way to ensure sleep quality.

2456 / #RF046

POINT-OF-CARE ULTRASOUND IN AN INTERNAL MEDICINE UNIT - PATIENT PROFILE AND TYPES OF ULTRASOUND EXPLORATIONS

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Background and Aims: Point-of-care ultrasound (POCUS) has an increasing role in the daily routine of an internist. However, the profile of the patients who undergo POCUS is unknown, as is the type of ultrasound (US) explorations and its indications. With this study we aim to identify the clinical characteristics of our patients and the type of US exploration executed and its most frequent indications.
Methods: This is a retrospective, descriptive study with data acquired from clinical information included in the medical histories of patients who were appointed to the Clinical Ultrasound Unit agenda of the General Hospital in Valencia (Spain) during the months of April and May of 2021. An anonymized Excel spreadsheet was used to collect and analyse the data.
Results: 75 patients were included, with a median age of 85, 60% of them women and an average Barthel-score of 38. The most frequent comorbidities were arterial hypertension, dyslipemia, previous cardiopathy, diabetes mellitus 2, chronic renal failure, cancer, and lung disease. 91 US explorations were executed: 56 echocardiograms, 12 abdominal , 9 multiorgan, 4 vascular, 3 urologic, 3 pulmonary, and 3 congestion US. The most frequent indications were heart failure and abnormal findings during physical assessment (heart murmurs, abdominal pain and organomegaly). Other indications were blood test findings, fever, and renal failure.
Conclusions: In our unit, US is an accessible diagnostic tool that avoids unnecessary patient transfers and helps immediate therapeutic decisions. Our most frequent US explorations were cardiac and multiorgan, with the most frequent indications being heart failure and abnormalities during physical assessment.

2558 / #RF047

WORKPLACE VIOLENCE AGAINST INTERNISTS DURING NIGHT SHIFTS IN A SWISS HOSPITAL

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Background and Aims: Worldwide, healthcare organizations face the concern of workplace violence (WPV) perpetrated by patients or their relatives against healthcare workers. From 24 to 88% of emergency department workers (EDW) are victim of violence in a 12-month period. The link between shiftwork schedule, number of night shifts, and the occurrence of WPV on EDW is well-known. Night shifts are an important part of postgraduate medical training for internists. To date, there is a lack of data on WPV exposure during those shifts.
Methods: We conducted an ecological study of night shifts in the division of general internal medicine at the University Hospitals of Geneva between 2019 and 2020 (pre-pandemic). Trained medical students directly observed residents tasks during their 4 weeks rotation of night shifts. Residents filled an anonymous e-survey once before and once 4 weeks after the rotation, including a measure of WPV exposure.
Results: Among the 41 residents included (27 (65.9%) women, often in their third year in training), 8 (19.5%) reported physical or verbal threats, out of those 4 (9.8%) were physically assaulted, with no significative gender difference. None reported these episodes to their supervisors, nor filled the specific form provided by the institution for WPV victims.
Conclusions: Our results confirm that WPV against internists during night shifts is a significant issue while systematically under-reported. This should increase healthcare institutions awareness toward this particular burden of night shifts, and warrant efforts to minimize WPV against physicians in internal medicine.

 DOI: 10.12890/2022_V9Sup1

2589 / #RF048

TELEMEDICINE FOR RHEUMATOLOGY PATIENTS IN COVID-19 PANDEMIC: PERSPECTIVES OF PATIENTS

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Background and Aims: COVID-19 pandemic emerged as a global challenge. Lack of effective treatment, social boundary, and lockdown were the primary preventive measure, rendering telemedicine a safer interaction system between patients and clinicians. The use of telehealth for patients with autoimmune and rheumatic conditions during the pandemic mandates better characterization.

Methods: We conducted a cross-sectional telephonic survey on all patients who consulted rheumatologists through telehealth to determine patients' attitudes toward telehealth rheumatology outpatient service. Descriptive analyses were performed.

Results: 50 patients used teleconsultation service during study period. 35 patients (70.0%) were female, with a mean (SD) age of 47.6 (18.1) years. Most common inflammatory condition was rheumatoid arthritis (10, 20.0%). Most common mode of learning about teleconsultation was the Hospital website and outpatient clinic desk or helpline (27, 54.0%). Approximately one-third (14, 28.0%) of the patients reported seeking another person's assistance for teleconsultation. Worsening of usual disease symptoms (36, 48.6%) was the most common reason for seeking teleconsultation. Most highlighted limitation was lack of physical examination (18, 21.7%). Overall, 38 (76.0%) patients preferred continuing teleconsultation beyond the pandemi

Conclusions: Telemedicine offers a valuable and practical method of providing rheumatological services during and after the COVID-19 pandemic, which is generally well accepted by the patients. However, our patient population lack insight into its utility to address medical problems remotely. We strongly feel that the feasibility and application of telehealth in resource-limited settings and low- and middle-income countries must be established to avail its potential to transform health care across the globe.

2629 / #RF049

EVOLUTION OF PROCEDURES PERFORMED IN A POLYVALENT MEDICAL DAY HOSPITAL DURING THE YEARS 2015-2021.

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Background and Aims: Polyvalent Medical Day Hospital (PMDH) is an alternative to conventional hospitalization. We analyzed the number of procedures performed at the PMDH from its opening on July 2015 to December 2021.

Methods: Retrospective and descriptive study with data collected through the internal registry of procedures performed in the area of treatments/procedures (biological drugs, other treatments, invasive techniques) from 7th July 2015 to 31st December 2021 at PMDH.

Results: A total of 21,424 procedures/treatments were recorded from 2015 to 2021. We observed a progressive increase: 2015 (289), 2016 (2,412), 2017 (1,985), 2019 (3,955), 2020 (4,508), 2021 (5,598). A total of 10,167 treatments were administered. Biological drugs were administered 4,137 in all, with an increase over years: 2015 (26), 2016 (217), 2017 (244), 2018 (321), 2019 (481), 2020 (1,406), 2021 (1,442). The most frequent drugs were: omalizumab (45%) and infliximab (29%), followed by vedolizumab (6%), evolocumab (5%). Other treatments were administered 6,030 in all: 2015 (180), 2016 (951), 2017 (591), 2018 (762), 2019 (1,095), 2020 (1,128), 2021 (1,323).

The most frequent treatments were: IV iron (25%), red blood transfusion (10%), IV antibiotic (11%), IV furosemide (9%), phlebotomy (6%), methylprednisolone (5%). A total of 541 techniques were performed, these according to years were: 2015 (24), 2016 (73), 2017 (42), 2018 (77), 2019 (102), 2020 (130), 2021 (93). Some invasive techniques were: paracentesis (66%), thoracentesis (15%), lumbar puncture (13%).

Conclusions: We observed an increase in the number of procedures at PMDH, corresponding to the literature, the actual trend is to reduce the risks related to hospitalization and costs to patients who need chronic treatments or procedures.

2655 / #RF050

ADVANCING DIVERSITY, EQUITY, AND INCLUSION IN MEDICINE: ONE EPISODE AT A TIME

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Background and Aims: Podcasts by physicians and for physicians are increasingly popular for professional learning and development. The aim is to create a podcast that promotes diversity, equity, and inclusion (DEI) in medicine. Target audiences include clinicians, health professionals, trainees, and leaders. Podcast topics include anti-racism in medical education, the hidden curriculum, the minority tax, religious and spiritual diversity in medicine, digital health inequity, food insecurity, and more.

Methods: The DEI Shift launched in March 2020 with a diverse team of more than twenty members, including pre-medical students to advanced career physicians, global members, and more than six chapters of the American College of Physicians (ACP). The ACP Southern California Region III Chapter and the American Medical Associations' Joan F. Giambalvo Fund for the

 DOI: 10.12890/2022_V9Sup1

Advancement of Women have provided funding and sponsorship. Since May 2021, continuing medical education credits are offered through ACP.
Results: Since inception, The DEI Shift has launched 20 full-length episodes, plus two commissioned episodes/series regarding DEI considerations in the care of patients with chronic pain and obesity, respectively. In February 2022, The DEI Shift produced a series for the #ProudToBeGIM campaign, sponsored by the Society of General Internal Medicine. By March 2022, more than 12,400 episodes were downloaded in 58 countries/territories across six continents.
Conclusions: The DEI Shift was recognized with an ACP 2021 John Tooker Evergreen Award. In March 2022, Season 4 is in production. Podcasts can offer an impactful opportunity to reach physician audiences to promote the values and practice of DEI in medicine.

2256 / #RF051

MYOCARDITIS AND THROMBOTIC PULMONARY MICROANGIOPATHY AFTER SARS-COV-2 INFECTION OR COVID-19 MRNA VACCINES

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Background and Aims: SARS-CoV-2 infection and mRNA mechanism vaccines have been associated to an increased incidence of myocarditis and pulmonary thrombotic microangiopathy. Our aim is to describe the clinical characteristics of the patients under follow-up in our consultations.
Methods: This is a descriptive retrospective study. All the patients followed-up in our Autoimmune Diseases consultation with compatible symptoms, confirmed by cardiac magnetic resonance and pulmonary perfusion gammagraph, were included.
Results: 6 patients were identified. The mean age was 35.8 years (23-45), with a predominance of the female sex (n:4, 66.6%). The most frequent presentation of symptoms was after vaccination (n:5, 83.3%). Elevation of CRP, D-dimer and troponin was observed only in 2 patients (33.3%). Cardiac resonance presented a result compatible with myocarditis in 5 patients (83.3%) and pulmonary perfusion gammagraph showed images compatible with pulmonary microangiopathy in all subjects (100%). Treatment was initiated with colchicine (n:6, 100%) and prednisone (n:4, 66.6%). Anticoagulation was decided with low molecular weight heparin (n: 4, 66.6%) or direct oral anticoagulants (n: 2, 33.3%). In addition, 1 of the patients (16.6%) was treated with intravenous immunoglobulins. Full recovery has only been achieved in 1 of the patients (16.6%).
Conclusions: Our patients have been diagnosed by cardiac magnetic resonance and pulmonary perfusion gammagraph, but there is no information about a possible treatment when this is caused by COVID-19 or its vaccine. We think that there may be a relationship between these clinical manifestations due to COVID-19 and these events produced by the vaccine. Further research is needed.

2369 / #RF052

THERAPEUTIC VS. PROPHYLACTIC HEPARIN IN COVID-19 PNEUMONIA: THE BEMICOVID-19 RANDOMIZED CLINICAL TRIAL

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Background and Aims: Therapy with therapeutic-dose low-weight molecular heparin (LWMH) has been suggested for the management of COVID-19 pneumonia to prevent thromboembolic complications. The aim of this trial was to compare the effectiveness and safety of therapeutic dose Vs prophylactic dose of bemiparin in patients admitted to hospital with non-severe COVID-19 pneumonia.
Methods: Single-blind, randomized, controlled trial in adult-patients admitted to hospital with non-critically ill COVID-19 pneumonia and elevated D-dimer. Patients were randomized to therapeutic (115 IU/Kg daily) Vs. prophylactic bemiparin (3,500 IU daily) for 10 days. The primary efficacy outcome was a composite of death, ICU admission&mechanical ventilation support and VTE, within 28 ± 2 days after randomization. The primary safety outcome was major (or non-major clinically-relevant) bleeding. Trial-Registration: ClinicalTrials.govNCT04420299.
Results: 76 patients were included in the final analysis (mean age: 60.6 years; men: 60 [76.9%]), 38 receiving prophylactic-dose and 38 therapeutic-dose. Primary efficacy outcome was met in 7 patients (18.4%) (2.6% death, 10.5% ICU admission & mechanical ventilation support, 5.3% VTE) in the therapeutic-dose group and in 6 patients (15.8%)(0%death, 7.8% ICUadmission & mechanical ventilation support, 7.8%VTE) in the prophylactic-dose (Relative Risk: 1.17, 95%CI: 0.43-3.15; Odds Ratio: 1.20, 95%CI: 0.38-3.83; Absolute Risk Reduction: 2.6%, 95%CI: -14.3-19.6; p=0.761). No major bleeding event was observed in any arm of treatment. Hospital discharge at 10-day was similar in both groups.
Conclusions: In hospitalized patients with non-severe COVID-19 pneumonia and elevated D-dimer, anticoagulation with 10-days of therapeutic bemiparin did not get better primary clinical outcome but was not associated with major bleeding, compared with usual thromboprophylaxis. Further studies are necessary to better identify subgroups patients who can get benefit form full anticoagulation.

 DOI: 10.12890/2022_V9Sup1

2431 / #RF053

OBESITY AND OVERWEIGHT ASSOCIATIONS WITH COVID-19 SEVERITY AMONG ADULTS HOSPITALIZED IN THE UNIVERSITY HOSPITAL, LITHUANIA

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Background and Aims: Obesity is a significant risk factor associated with increased morbidity, hospitalisation and mortality among COVID-19 patients. The objective of the study was to evaluate obesity and overweight association with COVID-19 severity.
Methods: COVID-19 positive adult patients hospitalized in Vilnius University Hospital Santaros Klinikos, Lithuania, were included in the cohort study between March 2020 and December 2021. Participants were divided into 3 groups according to body mass index (BMI): normal-weight (18.5-24.9 kg/m^2), overweight (25-29.9 kg/m^2), obese (≥30 kg/m^2). Severe COVID-19 was defined as pneumonia with objective respiratory failure symptoms (SpO2<94%). p-value <0.05 was considered significant.
Results: Among 245 participants, 49 (20.0%) were normal-weight, 77 (31.4%) - overweight, 119 (48.6%) - obese. Age median was 53 years (IQR 42-60). Arterial hypertension was more common among obese patients compared to normal-weight and overweight patients. Obese patients more frequently complained of dyspnoea compared to normal-weight patients (52.1% vs 34.7%, p=0.04) and chest pain compared to overweight patients (34.5% vs 18.2%, p=0.013). Severe COVID-19 was diagnosed for 84.0% obese, 68.8% overweight, 44.9% normal-weight patients (p<0.001). Odds ratio to develop severe COVID-19 was 5.25 (95%CI 2.38-11.58; p<0.001) for obese patients and 2.25 (95%CI 1.04-4.85; p=0.039) for overweight patients compared to normal-weight patients adjusted for age and comorbidities. Obese patients more frequently required treatment in high dependency or intensive care units compared to overweight (19.3% vs 7.8%, p=0.026) and normal-weight patients (19.3% vs 6.1%, p=0.031).
Conclusions: Obesity and overweight are significant independent risk factors for severe COVID-19 disease. Besides, more healthcare system recourses and expenditures are required for these patients.

2449 / #RF054

PREDICTION ACCURACY OF SERIAL LUNG ULTRASOUND IN COVID-19 HOSPITALIZED PATIENTS (PRED-ECHOVID STUDY)

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Background and Aims: The aim of this study is to analyze the prognostic accuracy of serial lung ultrasound examinations in patients admitted to hospital due to COVID-19.
Methods: Multicenter prospective observational study performed at six University Hospitals in Spain that recruited patients admitted to hospital due to SARS-CoV-2 infection. Two ultrasound examinations were planned to be performed, the first one within 48 h after hospital admission (SCORE-1) and the second on day 3 or 4 (72–96 h) after the first examination (SCORE-2). The extent and severity of the ultrasound findings were determined using a 10-zones protocol.
Results: 469 patients were included. Two hundred and fifteen patients (45.8%) were male. The median age was 60 yrs. At admission, the patient's respiratory situation was as follows: 116 patients (24.7%) had an adequate oxygen saturation breathing ambient air, 313 patients (66.7%) were receiving oxygen using nasal cannulas and 37 patients (7.8%) were on noninvasive mechanical ventilation or high-flow oxygen. The median time from the onset of symptoms to hospital admission was 7 days (IQR 4–9) and the median length of hospital stay was 7 days (IQR 5–10).
Conclusions: The algorithm we propose could be a valuable tool in medical wards to predict the probability of clinical worsening in patients with SARS-CoV-2 pneumonia, helping to identify the most appropriate therapeutic and management pathway for patients, and to monitor the disease with a simple and innocuous technique that can be performed at the patient's bedside. This may facilitate the selection of patients who need closer monitoring and a more intense therapeutic approach.

DOI: 10.12890/2022_V9Sup1

2469 / #RF055

DIFFERENCES IN COVID-19 CLINICAL PRESENTATION AND OUTCOME BETWEEN LATINX AND SPANISH NATIVES

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Background and Aims: Previous studies have suggested an increased susceptibility of COVID-19 among certain populations. We analysed whether COVID-19 presentation and mortality differ between Latinx migrants and Spanish natives.

Methods: COVID-19 patients between the ages of 35-65 years old admitted between January 26th and May 5th, 2020 were reviewed. Demographics, major comorbidities, symptoms, and signs on admission and analytical parameters previously described as risk factors for respiratory failure were recorded. Respiratory failure was defined as PaO2/FiO2 ≤200mmHg, non-invasive or invasive mechanical ventilation requirement at any time during hospitalization. Logistic regression was used to evaluate the effects of different variables on mortality.

Results: A total of 894 patients: 425 (47.5%) Latinx and 469 (52.5%) Spanish natives were included. Latinx were younger (50 vs 55 years p<0.001) and had less comorbidities (29.4% vs 55.0% p<0.001) than Spanish natives. However, more often they exhibited fever (22.1% vs 9.8% p=0.018) and had higher inflammatory markers (PCR) (11.3mg/dl vs 7.7mg/dl p<0.001). Mortality was lower among Latinx (4.7% vs 8.7%, p=0.017). Nonetheless, we were unable to find an association between ethnicity and mortality. 118 patients (13.2%) were admitted to ICU. Latinx were more frequently admitted to ICU (18.7% vs 16.0%, p=0.02), were younger (53 vs 56 years, p=0.01) and had less comorbidities (22.1% vs 28.0% p=0.003). No difference was observed in terms of mortality between groups.

Conclusions: We were unable to identify ethnic disparities between Latinx and Spanish natives in terms of COVID-19 mortality. Differences previously described might be a consequence of socioeconomic disparities.

2611 / #RF056

CT-SCAN MODEL OF AGEING: MUSCLE MASS, BONE DENSITY AND VASCULAR CALCIFICATION IN ELDERLY PEOPLE WITH COVID PNEUMONIA

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Background and Aims: Several studies described the association of COVID-19 with frailty and mortality in patients over 65 years old. These considerations inspired the researchers to recognize changes in organ and tissue as a marker of frailty in older people. The aim of this study was to investigate the relation between muscle mass, bone loss and arterial calcifications in patients over 75 years old affected by COVID pneumonia.

Methods: In this retrospective observational study, we analyzed on a thoracic CT paravertebral skeletal muscle area (cm2) and density (HU) at Th12 level, descending thoracic aortic calcification (DTAC) - Agatston Score and L1 bone mineral density (HU) in 25 patients admitted to our Unit.

Results: 25 patients (13 males, 12 females), with a mean age of 83±2.83 years, were included. Agatstone score was inversely associated with L1 density (rho=- 0.452, p=0.024) and with muscle density (rho= -0.43, p=0.03), also after adjustment for age and gender. L1 density was directly associated with muscle mass density (rho=0.42, p=0.03). The area under the curve of the ROC curve constructed to evaluate the discriminating power of the total DTAC in order to predict the death of patient was 0.81. The cut-off value of DTAC=2930,98 had sensitivity of 89% and specificity of 69%.

Conclusions: The results of this study demonstrated that vascular calcification is inversely related to bone mineral density and muscle mass density, while bone and muscle density are directly correlated. Finally, DTAC in elderly people with COVID pneumonia has a good power to discriminate the surviving patients from those who dead.

 DOI: 10.12890/2022_V9Sup1

2612 / #RF057

CAN A COMPREHENSIVE GERIATRIC AND A NUTRITIONAL ASSESSMENT IDENTIFY DIFFERENT PROFILES BETWEEN COVID-19 AND NON-COVID-19 OLDER PNEUMONIA SURVIVORS?

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Background and Aims: The current COVID-19 pandemic has caused an explosion of viral pneumonia affecting mainly older patients but other community-acquired pneumonia remains an important health problem. Our aim is to compare geriatric and nutritional assessment in older patients discharged for COVID vs non-COVID pneumonia.

Methods: Patients over 65 years old discharged from May 19 - June 21 with radiological confirmed pneumonia were included. Comprehensive geriatric assessment (CGA) and nutritional assessment: Mini nutritional assessment (MNA), GLIM criteria(GC) and blood test at 60-days of discharge was performed. Appendicular Skeletal Muscle Mass/height^2 (ASMM) was assessed by bioelectrical impedance analysis. Nonparametric tests and multivariate analysis were used.

Results: 144 patients were included: 55.6% men, mean age 77 and 8% were institutionalized. Among main etiologies: 28% COVID-19, 6.2% pneumococcal, 4% Legionella, 4% other. COVID-19 patients were younger (72 vs 79), less frequently met HCAP criteria (7.3% vs 21.4%), had lower Fine Index (80 vs 98) and had shorter average length of stay (6 vs 8 days). No differences were found in ICU admission rate. At 60-days of discharge COVID patients were less institutionalized (2% vs 26%). The CGA showed that COVID-19 patients had lower Charlson Index (CI) (1 vs 2), were less frail (22% vs 41%), less smokers (0% vs 6.8%) and had less COPD (12 vs 23.3%) whereas Barthel Index (100 vs 90), Instrumental Activities of Daily living (7 vs 4) were higher. Regarding to nutrition, COVID-19 patients had higher MNA (24 vs 20), ASMM (12.3 vs 10.7), Zinc levels (11.3 vs 9.3)(P<0.05). No differences were found in readmission, body mass index, GC or sarcopenia. In multivariate analyses only age, MNA, CI and vitamin D remained statistically significant.

Conclusions: CGA identified different profiles of pneumonia survivors among COVID-19 and non-COVID-19 patients. Younger age, better nutritional status and lower CI mainly explained these differences.

2226 / #RF058

OUTCOMES FOR EXPLICIT AND IMPLICIT SEPSIS CASE DEFINITIONS IN NATIONWIDE INPATIENT ADMINISTRATIVE DATA IN LATVIA: A RETROSPECTIVE REGISTRY-BASED POPULATION-LEVEL STUDY

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Background and Aims: Sepsis is common cause of in-hospital deaths worldwide. Explicit and implicit diagnostic codes are widely used for sepsis surveillance by utilizing codes for sepsis/septic shock and combination of codes for infection and organ dysfunction, respectively. The aim of the study was to assess intrahospital mortality of sepsis patients in Latvia in comparison for implicit and explicit coding approach.

Methods: In retrospective administrative data study, 12,866 hospitalizations with explicit and implicit sepsis ICD-10 discharge codes were identified from 2015 to 2019. For unadjusted analysis, odds ratio (OR) of death was estimated via logistic regression with sepsis group as an independent variable. For adjusted analysis, implicit cases were matched to explicit cases using 1:1 propensity score matching with demographic characteristics and comorbidities used as covariates.

Results: Explicit sepsis cohort (73,4%, N=9,449) differed significantly from implicit sepsis group (N=3,417) by age (median 34 vs. 72, p<.001), male proportion (19% vs. 45%, p<.001) and comorbidities (median Charlson comorbidity index 0 vs. 3, p<.001). Overall unadjusted intrahospital mortality was 20.3% with substantial difference between the explicit and implicit cohorts, 16.9% vs. 29.7% (p<.001), OR 2.07, 95% CI [1.89, 2.28]. In the adjusted analysis, estimated OR was 0.88, 95% CI [0.86, 0.90]. In the sensitivity analysis using IPTW weighting, estimated OR was 1.00, 95% CI [0.98, 1.02].

Conclusions: Intrahospital mortality was similar to rates reported from other sepsis cohorts in Europe. The crude intrahospital mortality was higher in the implicit code group, however, it was significantly lower than in explicit sepsis code cohort when matching patients were compared.

DOI: 10.12890/2022_V9Sup1

2308 / #RF059

UTILITY OF BEDSIDE LUNG ULTRASOUND IN DIFFERENTIAL DIAGNOSIS OF ACUTE DYSPNEA

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Background and Aims: Point of care ultrasonography (POCUS) is a noninvasive bedside diagnostic tool. Lung ultrasound (LUS) offers a successful approach in many causes of dyspnea, in accordance with clinical examination. The aim of this study was to describe the impact in differential diagnosis of acute dyspnea among hospitalized patients.
Methods: Cross-sectional study including in-patients with non-Covid dyspnea of uncertain origin during February 2022 (sixth wave of COVID-19 in Spain). Clinical and epidemiological information was obtained from medical records. POCUS at hospital admission was done with a 5-MHz convex probe device in anterolateral chest from apex to base, and findings were standardized in final report. Data were analyzed using SPSS Statistics v.25.0
Results: Of the 20 patients included in analysis, 65% were male. Mean age was 85 ± 9.5 years, 65% were aged over 80. Most common comorbidities were hypertension (90%), congestive heart failure (75%), atrial fibrillation (60%), chronic cardiopathy (50%) and chronic respiratory disease (35%). Dyspnea LUS findings was classified as acute heart failure in 50%, pneumonia/consolidation (dynamic air bronchogram) in 10%, mixed in 25% and others (pleural effusion, pneumothorax, atelectasis) in 15%. Clinical diagnosis were modified by LUS findings in 58% of cases.
Conclusions: If complementary lung ultrasound information is performed, the diagnostic accuracy and, above all, the specificity increase significantly as well as the prognosis. Bedside LUS discriminates cardiac from pulmonary dyspnea allowing a reduction in time to diagnosis. References Perrone T, et al. Lung ultrasound in internal medicine: A bedside help to increase accuracy in the diagnosis of dyspnea.

2491 / #RF060

BLOOD TESTS AND SEROLOGY CHARACTERISTICS OF THE PATIENTS ADMITTED TO A SOUTHERN SPAIN HOSPITAL WITH THE DIAGNOSIS OF WEST NILE VIRUS ENCEPHALITIS.

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Background and Aims: To determine the blood test and serology characteristics of the patients admitted to the Puerto Real Hospital with the diagnosis of West Nile virus Encephalitis during the outbreak that took place between the period of August and October of 2021.
Methods: We performed an observational retrospective study gathering the blood test and serology results.
Results: We collected data from eleven cases, six were men and five women with an average age of 69,9. The blood tests showed an average CRP of 76 mg/L, 9.527 mc/L leucocites and 132 mEq/L of Sodium. The urine density was 1034 g/L. The CRP in the spinal fluid was positive in one of the patients, in the urine sample in two of them, and in none in the blood sample. The IgM in blood samples was positive in all of them and the IgG in six (54.5%). The IgM in the spinal fluid tested positive in eight (72.7%).
Conclusions: The results show hyponatremia with high density of the urine which could suggest a hypothalamic affection, this causing a light SIADH. It would be reasonable towards the future to request the osmolality to study it in a regulated way. The antibodies are the backbone of the diagnosis, the IgM presence in the spinal fluid is the most sensitive method although during the first days it could test negative. A positive IgM on the spinal fluid is diagnostic of neurologic disease meanwhile its presence in blood would only be criteria for a likely case. As we can see, a negative CRP in the spinal fluid doesn't exclude an infection.

2539 / #RF061

CONTINUOUS VENO-VENOUS HEMODIAFILTRATION WITH NOVEL ADSORBING MEMBRANE IN SEPTIC SHOCK PATIENTS REQUIRING RENAL SUPPORT: EXPERIENCE AT A PRIVATE HOSPITAL IN PUEBLA, MEXICO

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Background and Aims: Excessive po-inflammatory and anti-inflammatory cyitokines are mediators for hemodynamic alterations and multi-organ failure in septic patients. Extracorporeal treatment with an hemofilter has been introduced to eliminate inflammatory response during sepsis-associated acute

DOI: 10.12890/2022_V9Sup1

kidney injury. The aim of this study is to retrospectively review the medical records of septic patients submitted to continuous veno-venous hemodiafiltration (CVVHDF) high volume with a new adsorbing membrane for endotoxin, cytokine and fluid/uremic toxin removal, and evaluate the safety and cardiorenal response.
Methods: The medical records of 8 septic patients (7 men, 1 woman, age 54-90 y.o., with SOFA score >14) submitted to CVVHDF high volume with adsorbing membrane have been reviewed, from January 2021 to February 2022. The adsorbing membrane was used through continuous renal replacement therapy machines. At basal time, first 24 hr, and at the end of the treatment, the clinical data and the cytokines levels were analyzed.
Results: All of the 9 patients had acute kidney injury (AKI). Every CVVHDF treatment was at least 24 h, with a maximum of 168 h. No AE events were reported. The main cardiorenal and respiratory parameters improved with a decrease of the amine requirements. Cytokines and procalcitonin activity assay decreased. SOFA score decreased. All the patients were discharged from the hospital alive.
Conclusions: In septic shock patients with AKI, CVVHDF with this new adsorbing membrane may be safe and improves the cardiorenal - function and the clinical condition. The effect on cytokines and fluid restriction post resuscitation may explain in part these results.

2615 / #RF062

VENTILATORY SUPPORT IN PATIENTS WITH ALS. DESCRIPTIVE STUDY IN MULTIDISCIPLINARY CONSULTATION OF A HOSPITAL OF SPECIALTIES OF THE SAS

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Background and Aims: Amyotrophic lateral sclerosis (ALS) is a devastating and progressively disabling neurodegenerative disease. In the absence of a curative treatment, a multifactorial approach to complications is the best tool we have to deal with them. In our center we have a multidisciplinary team for this purpose. The objective of this study is to know the characteristics of the patients who come to these consultations, investigating one of their main needs: ventilatory support.
Methods: The data of the patients in follow-up in April 2019 in a multidisciplinary consultation, made up of professionals from various specialties, were analyzed cross-sectionally. Through Diraya, sex, toxic habits, time of evolution of the disease, need and type of ventilatory support have been collected.
Results: At the time of the study, we had 16 patients, with a mean disease progression time of 48.7 months and a mean population age of 58 years. The distribution by sex was: 59.4% women versus 61.6% men. A total of 52% of patients smoked at some point of illness. Regarding the need for NIMV, these were the results: 62.5% of patients used BIPAP at home in ST mode. Oxygen therapy was only required by 31.4% of them.
Conclusions: The multidisciplinary and comprehensive care of patients with ALS is the key in the management of this complex disease, with ventilatory support being a fundamental pillar of it.

2552 / #RF063

DIAGNOSIS OF ATRIAL FIBRILLATION AFTER NON-CRYPTOGENIC STROKE OF ASSUMED ETIOLOGY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background and Aims: Atrial fibrillation (AF) is the most frequently encountered arrhythmia and AF-associated stroke is one of the main types of ischemic stroke. However, AF is frequently detected in patients with ischemic stroke of other etiologies as well. The primary aim of this systematic review and meta-analysis was to assess the incidence and clinical impact of AF in patients with ischemic strokes which are not related to AF, namely strokes due to small- or large-vessel disease.
Methods: We searched PubMed and Scopus until 31/10/2021 for randomized controlled trials, non-randomized prospective studies and retrospective clinical trials providing data on the diagnosis of AF in patients with non-AF-associated stroke. The primary outcome of interest was the proportion of patients diagnosed with AF post-stroke. We estimated the summary proportion of patients diagnosed with post-stroke AF using random-effects meta-analyses.
Results: Among 15 eligible studies including 4,401 patients, AF was detected in 140 out of 2113 patients with small or large-vessel disease stroke (6.32%, 95% CI: 3.25-10.12, I2:85.66%). Among 1057 patients with stroke due to large-vessel disease AF was diagnosed in 71 patients (4.98%, 95% CI 1.54-9.62, I2:71.69%). Among 1056 patients with stroke due to small-vessel disease, AF was diagnosed in 69 patients (4.96%, 95% CI 2.22-8.45, I2:71.52%).
Conclusions: This systematic review and meta-analysis reports a remarkable likelihood of AF detection in patients with non-AF-associated ischemic stroke such as those attributed to small- and large-artery disease. The clinical implications of this finding warrant further investigation.

 DOI: 10.12890/2022_V9Sup1

2625 / #RF064

FEBRILE NEUTROPENIA:ARE WE DOING IT RIGHT?

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Background and Aims: Febrile neutropenia (FN) is a common complication of cytotoxic-chemotherapy. It involves high-risk for morbidity-mortality, requiring proper diagnostic and therapeutic approaches. Our aim was to assess the management of FN at our hospital.

Methods: Retrospective research of patients with discharge diagnosis of FN between 2016-2022.

Results: We analysed 105 patients, 92% had malignancy diseases (solid tumour 40%, lymphoma 44%, leukemia 9%). Respiratory (19%), gastrointestinal (13%), and ENT (11%) were the most suspected origin, 51% had no apparent focus. Blood cultures were collected in 92% patients. Other samples were: urine (56%), stool (14%), sputum (3%) and *C. difficile* toxin tests (9%). 20% individuals matched low-risk criteria and should have been discharged, according to guidelines. Antipseudomonal beta-lactams (piperacillin-tazobactam, carbapenems) were the most frequent initial therapy (84%), but 16% were not on antipseudomonal drugs (mainly amoxicillin/clavulanic or ceftriaxone). According to guidelines, grampositive cocci coverage was indicated for 11%, but only 8% received it. 97% of patients received G-CSF, 86% underwent reverse isolation. 17% of isolations (3/18) were resistant to initial therapy, and antimicrobial escalation was necessary in 17% patients (either empirically or targeted). 95% of patients were discharged alive.

Conclusions: According to guidelines, microbiological cultures were widely used, especially blood cultures. Almost one in 5 hospitalized patients received insufficient initial antibiotic regimen, since virtually all should receive antipseudomonal beta-lactams. Furthermore, we identified patients that could have been benefited from gram-positive cocci coverage and ambulatory management. Although the use of G-CSF and reverse isolation was predominant, their impact on global survival remains controversial. As clinicians, we should improve the management of FN among our patients.

2674 / #RF065

PREVALENCE OF POLYPHARMACY AND ASSOCIATED ADVERSE HEALTH OUTCOMES IN ADULT LATVIAN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Background and Aims: Polypharmacy is associated with increased risks of drug–drug interactions and related adverse effects, prescription and intake errors, poor compliance, re-hospitalization and mortality. This study aims to investigate the association between the number of prescribed medications and adverse outcomes such as kidney failure, all-cause mortality, and cardiovascular events in patients with nondialysis-dependent chronic kidney disease (CKD), admitted to CKD and Renal Replacement Therapy Clinics of Riga East university hospital (Latvia).

Methods: Retrospective data were collected from 46 patients with nondialysis-dependent CKD (median age, 66 years; 56% male; median eGFR, 48 ml/min). Polypharmacy and hyperpolypharmacy were defined as the regular use of 5–9 and ≥10 medications per day, respectively.

Results: The median number of medications was 14; During the observation period (median, 6 weeks), 12 developed kidney failure, 5 developed cardiovascular events, and 3 died. Compared with the use of fewer than five medications, adjusted hazard ratios (95% confidence intervals) associated with polypharmacy and hyperpolypharmacy were 2.32 (1.00 to 5.16) and 2.79 (1.22 to 6.54) for kidney failure, 1.52 (0.78to 2.94) and 3.22 (1.62 to 6.14) for cardiovascular events, and 1.18 (0.71 to 2.74) and 2.90 (1.58 to 5.49) for all-cause mortality.

Conclusions: The use of a high number of medications was associated with a high risk of kidney failure, cardiovascular events, and all-cause mortality in Latvian patients with nondialysis-dependent CKD under nephrology care. The clinicians should specifically monitor their patients for multiple conditions, health conditions, and emotional states, regardless of the clinical characteristics of other patients.

2734 / #RF066

CLINICAL UTILITY OF KIDNEYINTELXTM ON PATIENTS WITH EARLY-STAGE DIABETIC KIDNEY DISEASE: A REAL-WORLD EVIDENCE STUDY

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Background and Aims: KidneyIntelX is a multiplex immunoassay of 3 plasma biomarkers with 7 clinical variables with machine-learning to generate a risk score for progressive kidney decline in

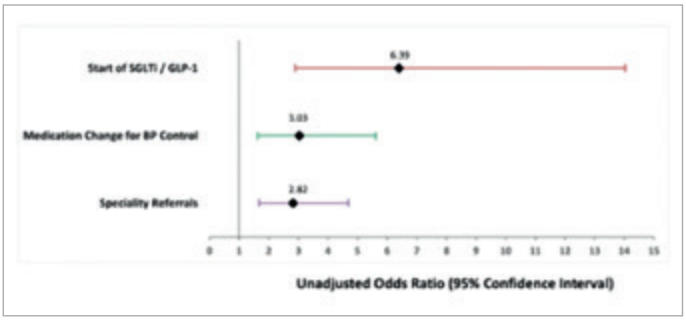
 DOI: 10.12890/2022_V9Sup1

individuals with early-stage diabetic kidney disease (DKD).

Methods: A Population Health defined care pathway for DKD patients informed by KidneyIntelX was introduced into the Mount Sinai Health System as part of a Real World Evidence (RWE) study (NCT04802395). Decision impact of medication management (anti-hypertensives, SGLT2 inhibitors/GLP1 agonists) and specialist referral was tracked. Interim analysis was performed for 1) Assessing comparability between RWE and published clinical validation cohort based on KidneyIntelX risk score distribution; 2) Determining if necessary EHR clinical fields were captured; 3) Identifying early evidence of KidneyIntelX impact on provider decision-making.

Results: Between Mar-Nov 2021, 1,112 patients had test results, with upto 36 week follow-up. Risk breakdown of RWE population was similar to the clinical validation cohort [High 14% vs. 17%, intermediate 40% vs. 37% and low risk 46% vs 46%]. EHR record review for care changes confirmed ability to meet study objectives. Compared to patients scored low risk, there were changes in anti-hypertensives (OR 3.0; 95% CI 1.6-5.6), initiation of SGLT2i/GLP-1a (OR 6.4; 95% CI 2.9-14) and increased referrals to nephrologists, endocrinologists, or dieticians (OR 2.8;95% CI 1.7-4.7) in patients scored as high-risk (Figure).

Conclusions: KidneyIntelX was successfully deployed in a health care system in a comparable population to the validation cohort with high data capture fidelity. Application of guideline-based therapies and specialist referral increased in the proportion to reported risk level by 3-6 and >2-fold, respectively.



#RF066 Figure 1: Action Taken by Physicians after KidneyIntelX results in High vs. Low-Risk Group.

DOI: 10.12890/2022_V9Sup1

AS01. AMBULATORY MEDICINE

601 / #EV0001

PREVALENCE AND PROGNOSIS OF PERICARDIAL EFFUSION IN PATIENTS AFFECTED BY PECTUS EXCAVATUM: A CASE-CONTROL STUDY

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Background and Aims: Chronic pericardial effusion represents a diagnostic-therapeutic challenge, often encountered as an incidental finding in oligoasymptomatic patientsand termed ""idiopathic". Pectus excavatum (PEX) has been occasionally associated with pericardial effusion. Aim of the present study was to compare incidence and prognosis of pericardial effusion in a group of unselected patients with PEX vs a control group.

Methods: From a prospective registry of patients who had chest CT for cardiovascular disease, 43 subjects with a radiological diagnosis of PEX (cases) and 86 patients without rib cage abnormalities (controls) were selected, until a 1:2 ratio was reached. The presence of pericardial effusion at CT was quantified. Follow-up was obtained for a composite end-point: cardiac tamponade, need for pericardiocentesis or cardiac surgery for relapsing pericardial effusion.

Results: Pericardial effusion was significatively more prevalent in patients with PEX 16/43 (37.2%) vs control group 6/86 (13.9%) ($p < 0.001$), respectively. Four patients with PEX (9.3%) had moderate pericardial effusion vs no subjects among the controls ($p = 0.004$). The proportion of patients with PEX was higher in male patients 26/43 (60.5%) than female patients 17/43 (39.5%), but among females 9/17 developed effusion (56%) while among males 6/26 (23%) ($p= 0.029$). At a mean follow-up of 6.5 ± 3.4 years no pericardial events were recorded.

Conclusions: Our findings support the higher prevalence of pericardial effusion in patients with PEX when compared to a control group. The absence of adverse pericardial events at follow-up suggest the good prognosis of these effusions, that in the appropriate clinical setting might not be considered "idiopathic".

2109 / #EV0002

DIAGNOSIS OF PALPABLE LESIONS IN THE NECK - THE IMPORTANCE OF ULTRASOUND EXAMINATION

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Background and Aims: Palpation examination is one of the basic actions performed by a general practitioner. If there is palpable enlargement of organs or the patient reports pain, it is necessary to perform an ultrasound examination. Evaluation of the importance of ultrasound examination in the diagnosis of palpable neck lesions.

Methods: A group of 91 patients (52 females, 39 males) aged 8-72 years with a neck lesion found during palpation were enrolled in the study. All patients underwent an ultrasound using B-mode and Doppler imaging. Patients in whom a neoplastic process was suspected on ultrasound were referred for biopsy.

Results: In the study group, an anterior and lateral neck cyst was diagnosed in 15 patients. 8 patients were diagnosed with nephrolithiasis and 2 patients with neoplastic process. Among 23 patients diagnosed with extensive thyroid nodules, 7 were neoplastic. 23 patients had reactive lymph nodes and another 10 were diagnosed with a neoplastic process within the lymph nodes. Carotid artery aneurysm was found among 2 patients. Three patients were diagnosed with fresh thrombosis of the internal jugular vein. Among 5 patients, subacute thyroiditis was diagnosed. In group with suspected thyroid malignancy, histopathological examination confirmed 6 diagnosis. 9 out of 10 patients with a suspicion of a neoplasm in the lymph nodes on ultrasound examination, had histopathological confirmation, in 1 the histopathological result indicated an inflammatory process.

Conclusions: Ultrasonography is the method of choice in the evaluation of focal neck lesions. It highly correlates (88%) with histopathological findings in the diagnosis of neck neoplasm.

 DOI: 10.12890/2022_V9Sup1

1966 / #EV0003

GASTROESOPHAGEAL REFLUX DISEASE AND HEPOSTEATOSIS: OUTPATIENT DIAGNOSIS OF COMORBIDITIES

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Background and Aims: to study the correlation of volume of refluxate in the presence of gastroesophageal reflux and heposteatosis in outpatients in 2019-2020.

Methods: Data from 165 patients: 67 men, 98 women, average age 40 ± 10.3 years. 82 (49.7%) smoke more than 10 cigarettes a day. Concomitant diseases: body mass index over 25 in 111 (67.3%), abnormal waist-to-hip ratio 68 (41.2%), deficiency of cholecalciferol 158 (95.8%), cholecystolithiasis 14(8.5%), bile sediment 47 (28.5%). Inclusion criteria: symptoms of gastroesophageal reflux disease (GERD): acid regurgitation 84 (50.9%), epigastric pain 92 (55.8%), heartburn 109 (66.1%); exceptions: operations on the gastrointestinal tract, chronic diseases of the cardiovascular and the respiratory systems, oncology, pregnancy. Ultrasound revealed signs of hepatic steatosis, the volume of gastroesophageal reflux(GER) was calculated using the aquacontrast technique. LA classification is used with EGDS.

Results: Ultrasound examination revealed signs of steatosis in 44 patients (34.1%). The volume of GER is divided into degrees: minimum 8-16 ml, average 16.1-24 ml, pronounced - more than 24.1 ml and correlated with the presence of steatosis. The minimum volume of GER with steatosis was detected in 15 (34.1%) and 60 (49.6%) with unchanged liver ($\chi 2=6.1$, p=0.013). Moderate volume of GER is the same in both groups - 13(29.6%) and 38 (31.4%). The pronounced volume of GER dominates with steatosis in 16 (36.4%) versus 23 (19%) without steatosis (p=0.055).

Conclusions: The proposed version of ultrasound-assisted examination at the initial admission reduces the diagnostic time, and prescription of therapy and an increase in patient compliance. It is promising to study the relationship between the degree of liver fibrosis and the volume of GER, with the degree of HERD.

1994 / #EV0004

CLINICAL AND SONOGRAPHIC CORRELATIONS OF GASTROESOPHAGEAL REFLUX DISEASE AND INTESTINAL PATHOLOGY

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Background and Aims: To identify in patients with gastroesophageal reflux disease (GERD) comorbid clinical and metabolic changes, ultrasound indicators of colon lesions to improve transsyndromic diagnosis at the initial admission.

Methods: Data from 150 outpatients in 2019-2020 (60 men, 90 women) of average age 40.2 ± 10.2. A comprehensive examination included an ultrasound of the esophageal-gastric junction with the calculation of the volume of gastroesophageal refluctate (GER).

Results: In patients with GERD, the following colonoscopic (CS) and US - criteria for the state of the colon wall had correlation: colon wall thickness - CS colitis (p<0.001), colon wall thickness - CS - sigmoiditis (ANOVA, p=0.004), resistance index(IR) of the vessels of the colon wall and CS-sigmoiditis(p<0.001). So, the above ultrasound indicators can be considered as a reflection of the severity of damage to the colon wall. Association of ultrasound signs of lesions of various segments of the gastrointestinal tract with the age of patients [thickness of the colonic wall (Pearson p<0.001), sigmoid (ANOVA, p=0.006)); body mass index (increased BMI values - GER volume (Pearson, p=0.005)], the form of GERD and the volume of GER, a deficiency of lactase detected in 61,3% and 25-OH-cholecalciferol (D3) in 97.3%, an increase in the level of calprotectin were revealed. The fact of the correlation between D3 deficiency and the presence of heartburn (Pearson p<0.001), and higher RI of the colon (Pearson p=0.013) is interesting.

Conclusions: The ultrasound-assisted primary admission allows minimizing the time, material costs of diagnostic search, and optimizing the tactics of managing patients with comorbid gastrointestinal pathology.

1443 / #EV0005

SMOKERS IN THE PROCESS OF SMOKING CESSATION DURING A NOVEL CORONAVIRUS PANDEMIC

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Background and Aims: In detriment of the task force to assist patients affected by COVID-19, assistance programs aimed at chronic conditions were discontinued, including smoking cessation units. The objective is to describe the clinical profile and smoking history of smokers in the process of smoking cessation.

Methods: Cross-sectional study, by telephone survey, lasting 30 to 40 minutes, from September to December 2020, in patients from consecutive smoking cessation treatment groups (March 2019 to March 2020).

Results: 60 patients were recruited, 41 (68.33%) accepted the invitation to the study. Women was 52.5%, 58.17±8.28 years and 40% of the sample, continued without smoking. Among smokers, 78.3% smoked industrialized cigarettes and none used electronic cigarettes. Addiction time, 34.21±15.18 years; Fargerstrom test, 7.13±2.58 points. There was no report of COVID-19. As for withdrawal symptoms, when compared to those who still smoked

DOI: 10.12890/2022_V9Sup1

in the same period, it was observed that ex-smokers had a lower prevalence of smoking abstinence, fewer symptoms of craving, insomnia, fewer triggers for the consumption of sweets, pastas and chocolates, but they held the trigger for coffee use, significantly. Additionally, abstainers received a greater approach to reinforce the maintenance of cessation, by health professionals, during the period of the pandemic.

Conclusions: The management of chronic conditions needs to be systematically maintained during the pandemic. The number of former smokers was considerable in the survey carried out. Smoking cessation programs should be promoted for active smokers, as well as reinforcement of maintenance measures for ex-smokers. Approaches from health professionals encouraging cessation are necessary, regardless of the vehicle used.

1456 / #EV0006

BIOPSYCHOSOCIAL ASPECTS OF SMOKERS DURING QUARANTINE DUE TO THE NOVEL CORONAVIRUS

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Background and Aims: Quarantine due to the current pandemic has had an adverse impact on the psychopathological aspects of the population, especially in smokers. The objective is to evaluate biopsychosocial aspects of smoking cessation.

Methods: Cross-sectional study, by telephone survey, lasting 30 to 40 minutes, from September to December (2020), approaching smokers from consecutive treatment groups for smoking cessation.

Results: 68.3% of 60 patients accepted to participate in the study, when 52.5%, women; 58.17±8.28 years. As for smoking status, 40% of the sample continued without smoking. As for smoking status, 40% of the sample continued without smoking and was weight gain in 76.9%. There was also an improvement in taste in 82.5% and dietary patterns, by 30.8%. Among those who continued to smoke, it was observed that industrialized cigarettes were the most prevalent (78.3%); addiction time, 34.2±15.1 years; Fargestrom test, 7.1±2.6 points; previous cessation attempts, 2.4±1.8 times; coffee as a trigger, in 86%, and alcohol use, in 42.9%. As for withdrawal symptoms, 97.5% reported depressive symptoms; 80% anxiety; 87.5%, impatience; 90% dizziness; 95%, headache. As for quarantine peculiarities, 50% of the sample reported that the number of cigarettes smoked per day increased. Health professionals, in 84.6% to encouraged smoking cessation.

Conclusions: Psychopathological abnormalities were frequent among smoking cessation. Still, 40% remained abstaining during quarantine, and with less daily cigarette consumption for those who relapsed. The systematic intervention of health professionals on the importance of smoking cessation and the encouragement to abstain from addiction seems to have been a valuable tool in the process, suggesting a change in smoking behavior per se.

1749 / #EV0007

CHARACTERISTICS OF YOUNG HYPERTENSION REFERRAL IN AN OUTPATIENT GENERAL MEDICINE CLINIC

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Background and Aims: Young hypertension has been increasingly prevalent with an estimated prevalence of 3.3% in Singapore. We aim to identify the characteristics, frequency of secondary workup and etiologies of young hypertensive patients in Singapore.

Methods: We retrospectively analysed the clinical records of 148 patients referred to the National University Hospital General Medicine (GM) clinic for possible young hypertension. Sociodemographic factors, comorbidities, history and examination findings, investigations and final diagnosis were extracted.

Results: Majority were male (73.6%) and Chinese (71.6%). The mean age at presentation was 29.1 years. Obesity was a significant risk factor for young hypertension. (OR= 2.94, 95%CI 1.21-7.09, p<0.014,). Of these referrals, benign essential hypertension, secondary causes, no hypertension and incomplete work-up accounted for 46.6%, 16.9%, 20.3% and 16.2% respectively. The most common etiology of secondary hypertension is obstructive sleep apnea (OSA) (13.5%), followed by primary hyperaldosteronism (2.0%) and drug-induced (1.4%). Patients with OSA had significantly increased odds of associated symptoms such as snoring and daytime somnolence (OR=5.72, 95%CI 1.95-16.8) but 35.8% were not screened for these symptoms. Secondary hypertensive patients presented earlier compared to those with benign essential hypertension (0.92 vs 2.13 years, p=0.038) as they were more likely to be symptomatic (OR=5.10, 95%CI 1.59-16.41).

Conclusions: Obesity is a major risk factor associated with young hypertension and OSA. As OSA is the most common secondary cause of young hypertension, we recommend that it be screened, especially for obese patients. In addition, our study also noted a proportion of young hypertension referrals who did not complete recommended work-up which may lead to long-term implications.

DOI: 10.12890/2022_V9Sup1

1255 / #EV0008

PREVALENCE AND INCIDENCE OF TYPE 2 DIABETES MELLITUS DURING THE SARS-COV2 PANDEMIC IN PRIMARY CARE CENTERS IN CENTRAL CATALONIA.

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Background and Aims: The SARS-CoV-2 pandemic has meant a health challenge not only in its control, but also in the follow-up of chronic diseases such as Diabetes Mellitus. The objective is to describe the impact that the SARS-CoV-2 pandemic has had on the incidence (new diagnoses) and prevalence (through number of consultations and follow-up) in patients with type 2 diabetes mellitus in the Primary Care Centers of Central Catalonia during the year 2020.

Methods: A database of the Technology Information System of the Primary Care Services of Catalonia between 2019 and 2020 is used. The object of the analysis is the registration of visits and their diagnostic codes as approximations of the reason for consultation, recorded according to the International Classification of Diseases (ICD-10), this work focuses exclusively on type 2 diabetes. Data are represented in a frequency matrix of terms and are analyzed recursively in different partitions added according to date.

Results: In 2019, 109,567 visits were attended to patients with diabetes mellitus, while in 2020, 86,163 visits were attended to for the same diagnosis. These differences have been statistically significant (p=0.000101). Therefore, there is a statistically significant decrease in the number of consultations of patients with type 2 diabetes mellitus during the year 2020.

Conclusions: The SARS-CoV-2 pandemic has caused a significant health impact on pathologies that require chronic follow-up that have been underdiagnosed or undertreated. In our case, a statistically significant decrease in the number of visits in patients with diabetes mellitus is established.

1689 / #EV0009

PALMOPLANTAR PUSTULAR PSORIASIS IN A PREGNANT WOMAN

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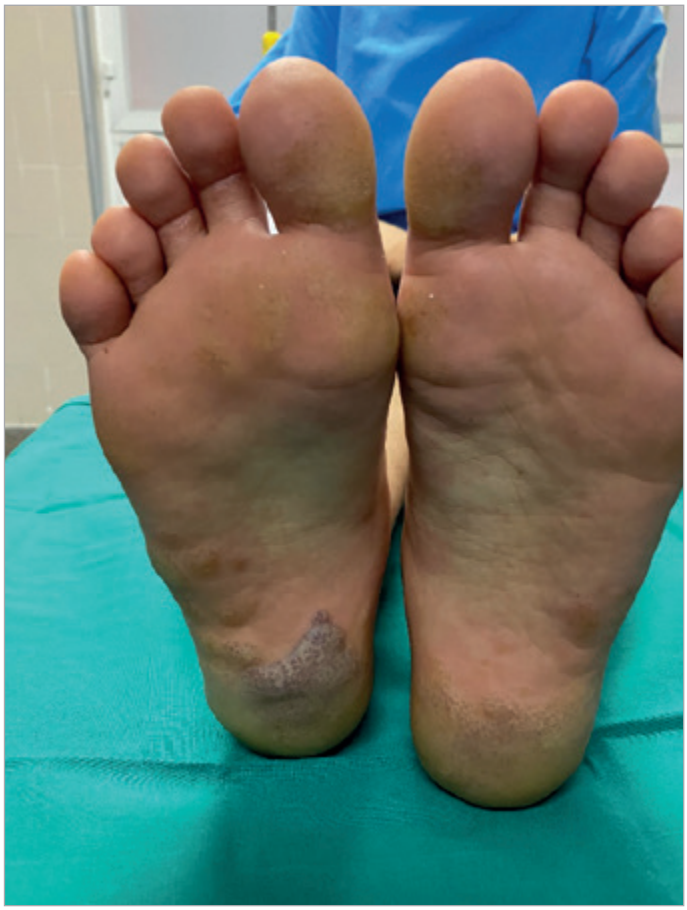
Case Description: We report a case of a 31-year- old female, 22 weeks pregnant, with no history of previous disease. She reported to start with cutaneous lesions a month ago. These lesions started as yellowish sterile pustules on erythematous base and pruritic plaques in palms and soles, and they progressively flake and acquired a dark brown color. These lesions caused pain in hands and feet and produced functional impotence and difficulty walking and standing. She was assessed by her primary care physician who started treatment with topic antibiotic. Nonetheless the skin lesions get worse. So, the patient decided to consult in the ER. After evaluation of the lesions, we decided to start treatment with high potency topical corticosteroids, performing occlusive cure. After 2 weeks with this treatment she reported significant improvement and after review of skin lesions and evolution we decided that the patient continued with the treatment. In a follow-up after delivery practically all the lesions had disappeared.

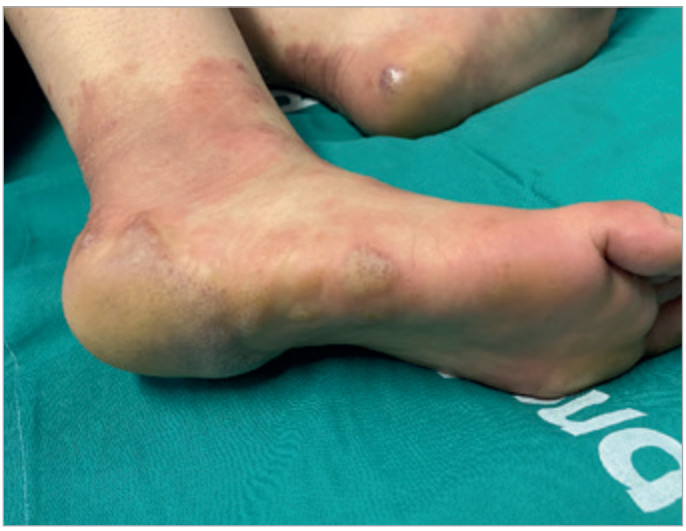
Clinical Hypothesis: Palmoplantar pustular psoriasis.

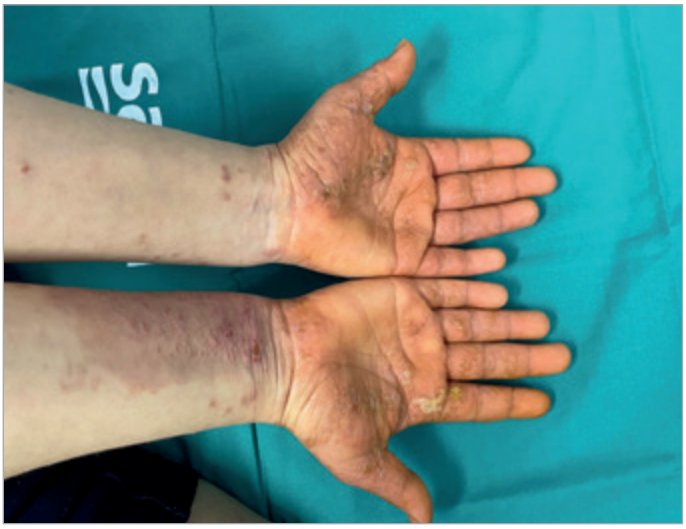
Diagnostic Pathways: We perform a differential diagnosis with acute palmoplantar eczema and acrodermatitis.

Discussion and Learning Points: Palmoplantar pustular psoriasis (PPP) is rare variant of psoriasis, characterized by pustular lesions, which are usually confined to palms and soles. These pustules converge and become dark brown. Recurrences are frequent. Usually occur in middle-aged women (20-40 years), with genetic susceptibility and influence of environmental factors like stress and smoking. The diagnosis is strictly clinical and a proper recognition of pustular lesions should be performed. PPP has a favorable prognosis, with self-limited course and favorable evolution with high-potency topical corticosteroid treatment.



DOI: 10.12890/2022_V9Sup1





#EV009 Figure 1.

2590 / #EV0010

BASIC CLINICAL-EPIDEMIOLOGICAL PROFILE OF THE ÁVILA CONTINUING CARE UNIT.

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Background and Aims: The aim of this study was to analyzed the basic clinical-epidemiological profile of the Ávila Continuous Care Unit during the period 2017 to 2021.

Methods: A descriptive cross-sectional study was carried out of the anonymized administrative records of 1947 patients seen in the Ávila Continuous Care Unit between January 2016 and December 2021. All variables were summarized by their mean and standard deviation, qualitative variables by their relative frequency. The confidence level used was 95% (95% CI). A multivariate analysis was performed using factor analysis and principal component analysis to identify variables to describe the clinical administrative profile.

Results: 27.2% (n=529) of the patients were in the quartile 82 and 88 years of age. The highest proportion were women, 56.0%. By referral service, primary care stood out with 74.2%, followed in proportion by specialized care (21%). By cause, nutritional and metabolic reasons stand out (37.5%), accounting for 44% of the reasons for referral in patients over 94 years of age, followed by cardiovascular reasons (23%). With regard to patient profiles, we were able to obtain factors that explain approximately 44% of the variance, a first factor associated with sex and reason for referral and a second factor associated with age and follow-up time.

Conclusions: The Continued Care Unit serves an ageing population with complex health problems, mainly nutritional and cardiovascular, and provides diagnostic support to both primary and specialised care.

2599 / #EV0011

IMPACT OF THE SARS-COV2 PANDEMIC ON THE MANAGEMENT OF A CONTINUITY OF HEALTHCARE UNIT MANAGED BY THE INTERNAL MEDICINE DEPARTMENT.

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Background and Aims: To describe the changes in the management indicators of an Internal Medicine Continuity of Healthcare Unit before and during the third wave of the SARS-CoV-2 pandemic.

Methods: A descriptive cross-sectional analysis of the before and after of all activities carried out by the Continuity of Healthcare Unit of Ávila was carried out. Two periods were defined taking into account the development of the pandemic, a first period or pre-pandemic and a second period defined as the six wave of the pandemic. The indicators were divided into consultation activity, medical and nursing care. They are presented as relative and absolute frequency distributions. The percentage of change was calculated, taking into account the previously defined periods.

Results: Taking into account the two study periods compared, a decrease of 28.6% in the total number of patients seen in the third wave period compared to the pre-pandemic period was observed. Similarly, there was a decrease of -52.7% and -66.7% in complex patients and first consultation patients in the unit. On the other hand, there was a significant increase in nursing activities 90.3%, an increase in deaths in patients who at some point have been seen by the ACU of 8% and referrals by other specialties 16%, although a decrease in referrals made by Primary Care.

Conclusions: Although in the third wave of the SARS-CoV-2 pandemic, hospital activity is relatively normal, the management of the ACU is still diminished, which could be an indicator of the degree of affectation or saturation of other areas such as Primary Care.

DOI: 10.12890/2022_V9Sup1

2192 / #EV0012

DIAGNOSIS OF EPILEPTIC SPASMS IN ADULT POPULATION.

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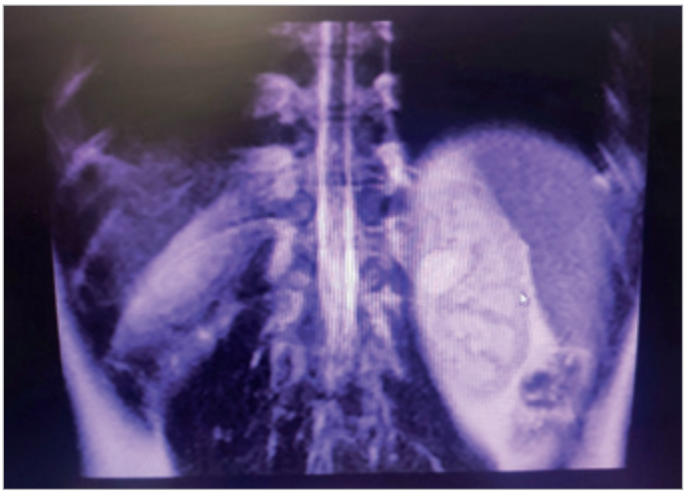
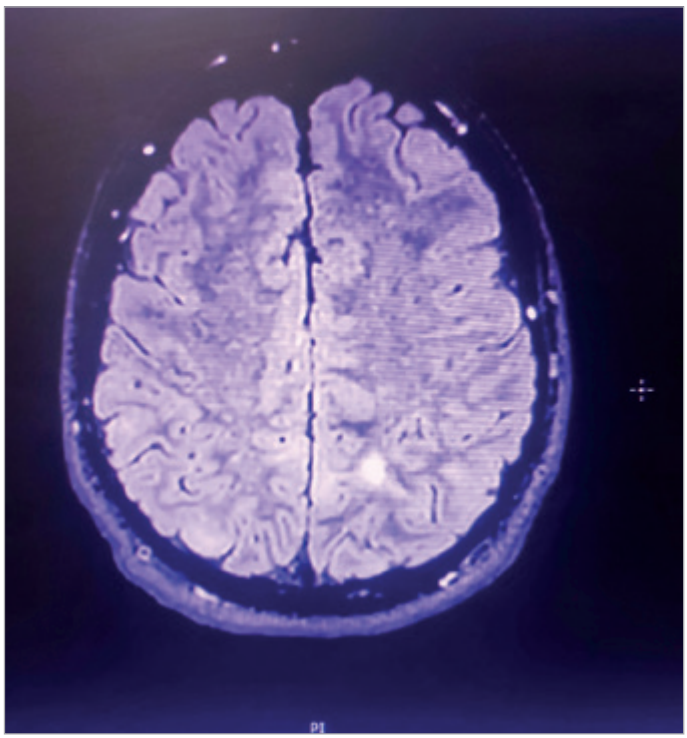
Case Description: A 18-year-old male with muscle spasms and angiomyolipomas in both kidneys identified by abdominal ultrasound.

Clinical Hypothesis: Epileptic muscles spasms are episodes of brain uncontrolled electrical disturbances, begin suddenly and last seconds, from violent jackknife or "salaam" movements where the whole body bends, usually begin early after birth but can also occur in older patients. West Syndrome, characterized by epileptic infantile spasms, hypsarrhythmia (abnormal brain wave patterns) and intellectual disability. Often became Lennox-Gastaut Syndrome with different types of seizures, in 70-75% specific cause can be identified.

Diagnostic Pathways: Renal MRI showed 6.6 mm rounded image compatible with fat-rich angiomyolipoma (AML) in left kidney pelvis, and a typical AML on right kidney posterior cortical pelvis. Wakefulness EEG with background activity of alpha- subalpha rhythm little parieto occipital structure, at 7-8 Hz bilateral and symmetrical, with interweaving of fast rhythms. Small proportion of paroxysmal anomalies were observed, and low expressiveness potential in left parietal region, and slow waves in right temporo occipital region. Brain MRI found subependymal nodules with punctate calcifications, more numerous on frontal horns adjacent to caudate nucleus, and another nodular image was identified next to left foramen of Monro, compatible with tuberous sclerosis lessions.

Discussion and Learning Points: West Syndrome is a constellation of symptoms characterized by epileptic infantile spasms, abnormal brain wave patterns called hypsarrhythmia and intellectual disability. The most common disorder responsible for West Syndrome is Tuberous Sclerosis Complex; autosomal dominant genetic condition, single copy of a non-working gene is enought to cause disease.





#EV0012 Figure 1.

2108 / #EV0013

LOWER LIMB EDEMA - HOW TO DIAGNOSE?

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Background and Aims: The importance of ultrasound examination in the diagnostics of lower limb edema.

Methods: A group of 102 patients, aged 8-80 years, with lower limb edema and pain were enrolled in the study. All patients underwent lower limb US examination using B-mode, Color Doppler and spectral options. Patients with suspected neoplasm process on US examination were referred for biopsy.

Results: In the US examination in the study group the diagnosis was as follows: - in 15 patients Baker's cyst - 8 patients with ruptured and diffuse intramuscular Baker's cyst - deep vein thrombosis in 17 patients (including 2 pediatric patients) -14 patients with intramuscular venous thrombosis - in 3 patients Achilles tendonitis -10 patients with shin muscle rupture/tear (including 2 pediatric patients) - popliteal artery aneurysm in 3 patients - 9 patients with massive lymphoedema in the course of erysipelas accompanied by reddening of the skin - in 5 patients neoplasm lesions - allergic edema in 3 patients (all pediatric patients after insect bites) - 8

DOI: 10.12890/2022_V9Sup1

patients with reactive lymphadenopathy (2 pediatric patients) - enlarged lymph nodes suspecting neoplasm in 3 patients (1 pediatric patient) - in 4 patients hematomas. In a group of 8 patients with neoplasm process suspected on US examination, histopathological examination confirmed neoplasm process in 7 patients, in the remaining 1 patient it revealed hematoma.

Conclusions: US examination is the method of choice in differentiating the cause of lower limb edema. US image highly correlates (87.5%) with histopathology in the diagnosis of neoplastic lesions.

DOI: 10.12890/2022_V9Sup1

AS02. CARDIOVASCULAR DISEASES

1363 / #EV0014

LOW DOSE COLCHICINE IN CORONARY ARTERY DISEASE: SYSTEMATIC REVIEW WITH META-ANALYSIS

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Background and Aims: Recent studies revealed benefits in coronary artery disease regarding colchicine use, a drug with anti-inflammatory properties. We aimed to systematically review benefits and risks of low dose colchicine in patients with coronary artery disease.

Methods: We searched for randomized controlled trials (RCTs) in MEDLINE, Cochrane Central Register of Controlled Trials (CENTRAL), Web of Science (March/2020). Efficacy and safety outcomes were evaluated. The estimates were expressed as risk ratios (RR) and 95% confidence intervals (95% CI). Heterogeneity was assessed with I2 test. The confidence in the pooled evidence was appraised using the GRADE framework.

Results: Colchicine showed a reduction of Major Adverse Cardiovascular Events (MACE) (RR 0.65; 95% CI 0.49-0.86; 6 RCT; I2 50%; 11718 patients; GRADE moderate), acute coronary syndrome (RR 0.64; 95% CI 0.46-0.90; I2 47%; 7 RCT; 11955 patients; GRADE very low), stroke (RR 0.49; 95% CI 0.30-0.78; I2 0%; 6 RCT; 11896 patients; GRADE moderate) and cardiovascular interventions (RR 0.61; 95% CI 0.42-0.89; I240%; 4 RCT; 11.284 patients; GRADE high). The risk of adverse events was not increased, except for gastrointestinal events (RR 1.54; 95% CI 1.11-2.13; I2 72%; 9 RCT; 12.374 patients; GRADE very low).

Conclusions: Low dose colchicine use in patients with coronary artery disease is associated with beneficial effect in the prognosis, although an increased risk of gastrointestinal events was verified.

356 / #EV0015

PREVALENCE OF SLEEP BREATHING DISORDERS AMONG PATIENTS WITH ATRIAL FIBRILLATION AFTER SURGICAL TREATMENT

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Background and Aims: Atrial fibrillation (AF) is one of the main causes of cardiovascular morbidity and mortality. At the same time sleep breathing disorders (SBD) are widespread among the general population. Currently, in particular obstructive sleep apnea (OSA), may be one of the risk factors for the development of AF. To study the prevalence SBD among those who have undergone surgical treatment of AF and possible interrelations SBD with diseases and received therapy.

Methods: 205 patients from a random sample (men -102 (49.8%), mean age 55.2±9.1 years) were examined after catheter treatment of AF. All patients underwent respiratory monitoring of sleep. The study was conducted against the background of basic therapy.

Results: OSA were registered at 94 patients (45.9%), among which the moderate and severe degrees were in 63.8% (60). Arterial hypertension was significantly common in patients with OSA with moderate to severe degrees compared with non-apnea patients (p=0.035). The increase in the number of antihypertensive drugs taken was positively correlated with an increase in OSA severity. The size of the left atrium (LA) in patients with severe OSA was statistically significantly increased than in patients without apnea (p=0.00002).

Conclusions: OSA is widespread in patients with AF after surgical treatment. Among patients with OSA patients with moderate and severe forms of the disease prevailed. The obtained correlations indicate a close relationship of sleep apnea with arterial hypertension, antihypertensive therapy, as well as body weight, BMI and size of the LA.

 DOI: 10.12890/2022_V9Sup1

2501 / #EV0016

CARDIOVASCULAR RISK FACTORS IN PATIENTS ADMITTED TO A SAS SPECIALTY HOSPITAL

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Background and Aims: To investigate the main cardiovascular risk factors (CVRF) in the population admitted to Internal Medicine: hypertension, diabetes, smoking, dyslipidemia and obesity.
Methods: We carried out a cross-sectional study of patients who were admitted to the Internal Medicine Service on April 9, 2019, reviewing the clinical history and recording the presence or absence of CVRF, as well as their control.
Results: At the time of the study, there were 75 admitted patients, half men and half women, with a population mean age of 70.68 years. 54% were non-smokers, 22% were ex-smokers, and 24% were smokers. Obesity was associated with 31% of patients, none of them under active treatment. 36% were diabetic, with 50% of them on insulin. The mean glycosylated hemoglobin was 7.5%. 60% were hypertensive, of which 4 were on dietary treatment, and the rest on pharmacological treatment. Mean arterial pressure was 148/79 mmHg. 50% of the patients were dyslipidemic, with a mean LDL cholesterol of 167.6 mg/dL. Of these, 38% of them received a dietary treatment, and the rest with a statin. Overall, only 4 patients did not present any CVRF, 10% of patients presented one CVRF, 32% two, 21% three, 11% four and 21% five.
Conclusions: It is widely accepted that CVRF control reduces the number of minor and major cardiovascular events and therefore mortality. Evaluating and optimizing the treatment of all of them, regardless of the reason for admission, is essential for correct clinical practice.

299 / #EV0017

INSUFFICIENT INCREASE OF NT-PROBNP ASSOCIATED WITH ASIMPTOMATIC LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN PATIENTS WITH TYPE 2 DIABETES WITHOUT CARDIOVASCULAR DISEASE

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Background and Aims: The early stage of diabetic cardiomyopathy is represented by the subclinical left ventricular diastolic dysfunction (LVDD). Nt-proBNP is used to identify the changes in the ventricular function. Moreover, it is a screening instrument used before performing an echocardiogram. The aim of study is to examine the level of Nt-proBNP and correlate its value with LVDD in asymptomatic type 2 diabetic (T2D) patients without cardiovascular disease.
Methods: The study population consisted of 120 patients without overt cardiovascular disease. It was divided into two identical age groups: 67 patients with T2D and 53 matched control healthy individuals. In both groups, echocardiography including tissue Doppler imaging and Nt-proBNP measurements were performed.
Results: LVDD was a type of delayed relaxation for everyone, the level of Nt-proBNP was within the reference values for both groups (Table). The correlation of Nt-proBNP level with LV diastolic function indicators was revealed: E/A (r=-0.30, p<0.001), IVRT (r=0.44, p<0.001), DT (r=0.30, p<0.001), E' (r=-0.34, p<0.001), E' /A' (r=-0.34, p<0.001), E/E' (r=0.22, p<0.001). T2D patients (n=67) Control (n=53) p-value E/A 0.8 (0.7; 0.9) 1,1 (0.8; 1,1) <0.001 E/E' 7,4 (6,0; 8,5) 6.5 (5,4; 7,3) <0.001 E', m/s 8,0 (7,8; 8,9) 9,8 (8,9; 12,3) <0.01 NT-proBNP, pg/ml 76.54 (35.25; 107.9) 55.9 (27.26; 89.17) <0.001.
Conclusions: Increased Nt-proBNP is associated with initial pre-clinical LVDD in asymptomatic T2D patients without overt cardiovascular disease. However, its levels in normal ranges make it difficult to use Nt-proBNP as a screening instrument in patients with earliest stage of DCM to select those who could benefit from an echocardiographical examination.

	T2D patients (n=67)	Control (n=53)
E/A	0.8 (0.7; 0.9)	1,1 (0.8; 1,1)
E/E'	7,4 (6,0; 8,5)	6.5 (5,4; 7,3)
E', m/s	8,0 (7,8; 8,9)	9,8 (8,9; 12,3)
NT-proBNP, pg/ml	76.54 (35.25; 107.9)	55.9 (27.26; 89.17)

#299 Table 1.

2577 / #EV0018

MALIGNANT HYPERTENSION

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Case Description: A 32-year-old male was admitted due to severe worsening of chornic kidney failure and lung infiltrate. He was previously diagnosed of ulcerative colitis and chronic kindney disease caused by mesalazine. He was not recieving any treatment and he denied consumption of toxic substances in the past. The patient complained of progressive dyspnoea, orthopnea, moist cough, pleuritic chest pain and foamy appearance of urine. Blood pressure was 160/120 mmHg. The physical exammination only revealed basal lung crackles. There were none electrocardiographic abdnormalities. A bilateral parahiliar infiltrate and effusion was demonstrated by a CT scan. Laboratory

 DOI: 10.12890/2022_V9Sup1

test showed severe kidney failure with hyperphosphatemia, mild anemia, elevation of cardiac enzymes and mild proteinuria.
Clinical Hypothesis: Initial hypothesis were renopulmonary syndrome, SARS-CoV-2 infection and acute coronary syndrome with heart failure.
Diagnostic Pathways: Firstly, COVID-19 infection was discarded. Given the possibility of a renopulmonary syndrome the patient initially recieved three pulses of corticosteroids. Diuretic and antihypertensive therapy were as well started, rapidly improving symptons and lung infiltrates. Ecocardiography revealed segmental hipoquinesia but coronariography did not show any significant lesions. Autoantibodies, serology, proteinogramme and hormons tests were unremarkable. Hypertensive rethinopathy with pathological sequelae was demonstrated by funduscopy. Definitive diagnosis was made with a kidney biopsy, showing a focal segmental glomerulosclerosis with vascular disease compatible with malignant hypertension. Secundary causes of hypertension were posteriorly discarded in consultation.
Discussion and Learning Points: The presented case is an example of an evolved damage in different organs caused by a malignant hypertension. Hypertensive emergencies are rare but serious complications and require a high index of suspicion for the diagnosis.

2693 / #EV0019

WHAT THE FACEMASK HIDES DURING COVID-19 ERA: HINTING THE AETIOLOGY OF NEW ONSET HEART FAILURE.

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Case Description: A 65-year-old male patient with past medical history of sleep apnoea/hypopnoea syndrome and colonic polyposis consults for exertional dyspnoea, orthopnoea, paroxysmal nocturnal dyspnoea and peripheral oedema. At first glance, a noticeable phenotype is observed: large ears, superciliary arches and hands together with a cavernous voice. Therefore, the patient is invited to remove his surgical mask what reveals macroglossia, prominent nose and mandibular prognathism. He also reports enlargement of both hands and feet in past years.
Clinical Hypothesis: The patient was admitted with the clinical suspicion of new onset heart failure due to acromegaly.
Diagnostic Pathways: During the patient's stay, echocardiography is performed, which shows both moderate systolic dysfunction and enlargement of all cardiac chambers, as well as cardiac catheterization that rules out ischaemic heart disease. Also, a complete blood test with pituitary gland function assessment is requested, bringing insulin growth factor-1 (IGF-1) values of 244 ng/mL (upper limit: 200 ng/mL), what supports the diagnosis of acromegaly. Finally, the diagnostic workup is completed with cranial magnetic resonance imaging (MRI) which finds the presence of a pituitary macroadenoma.
Discussion and Learning Points: The differential diagnosis of heart failure with ventricular dysfunction includes multiple causes, with ischaemic causes being the most frequent and the first that must be ruled out. However, this case highlights the importance of clinical history to detect other less prevalent but potentially treatable aetiologies.

2529 / #EV0020

THREE AT ONCE

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Case Description: A 51-years-old men presented with strength deficit in the left lower limb. Despite his intact cognitive functions, he didn't collaborate in the anamneses. There was no register of any medical care before the current evaluation. The patient smokes and has heavy ethyl habits. On the examination his lefts limb was cold, cyanotic, without palpable pulse or pain. The left lower and upper limb were paretic, however he couldn't say when it had happened.
Clinical Hypothesis: Acute lower limb ischemia/stroke.
Diagnostic Pathways: Cranial computed tomography angiography (CTA) revealed subacute ischemic lesions on the vascular territory of the cerebral medium artery, internal carotid stenose and occlusion of the vertebral artery ipsilateral. There were also left subclavian artery filling disturbances. Electrocardiography showed sinus rhythm and evolved inferolateral myocardial infarction. Echocardiogram was consistent with the same diagnose and excluded aneurisms, thrombus or vegetations. Laboratory results revealed increased in troponin, macrocytosis, hypokalaemia and hyponatremia. Thoracic CTA excluded aortic dissection. Angiography of the lower left limb was suggestive of chronic ischemia. Therapeutic with hight doses statin and simple antiaggregating was initiated. Later, after excluding cranial haemorrhage, anticoagulation was initiated.
Discussion and Learning Points: Atherosclerotic disease is one of the most common causes of death and disability by leading to ischemic heart disease and cerebrovascular disease. The prevention through controlling the risk factors is essential. The presented case suggests extensive atherosclerotic disease that leaded to atheroembolism with ischemia of multiple vascular territories. We highlight this case because of its difficult management, not only by its gravity but also due to the precarious social situation described.

 DOI: 10.12890/2022_V9Sup1

461 / #EV0021

HIGH POTENCY STATINES PLUS EZETIMIBE - IS IT NECESSARY THE COMBINATION TO ACHIEVE THE NEW LDL GOALS OF 2019?

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Background and Aims: Assess the efficacy of the use of high potency statins (atorvastatin 40-80mg and rosuvastatin 10-20mg) alone or in combination with ezetimibe in reducing LDL-cholesterol levels.

Methods: Retrospective cross-sectional study carried out on patients with high and very high cardiovascular risk, treated with high potency statins associated or not with ezetimibe according to LDL target, evalueted at the High Cardiovascular-Risk Unit of the Infanta Elena Hospital, Huelva. Treatment was started on patients who, according to the SEC-2019 guidelines were not within the objectives of LDL-cholesterol for their cardiovascular risk group calculated using SCORE. The LDL-cholesterol levels were observed before starting treatment and subsequently after at least one month of maintenance.

Results: 150 patients were included of which 31 were eliminated due to poor adherence or lack of new analytical control, finally leaving 119 patients, 54.6% women and 45.4% men, with an age average of 58 years. As a result, only 36% reach the objective according to the latest published guidelines, 35 (29.4%) took a statin alone and 84 (70.6%) in combination with ezetimibe. The mean LDL before starting treatment was 164 mg/dL, with a maximum value of 374 mg/dL. Mean LDL after treatment was 87.9 mg/dL with a mean in patients taking a high potency statin of 99.1 mg/dl and 84.4 mg/dl if they took a statin plus ezetimibe.

Conclusions: As there is a high percentage of patients who do not reach objective despite the combined treatment with statins and ezetimibe, it is necessary to consider adding drugs that have shown a greater reduction in LDL such as IPCSK9.

1015 / #EV0022

ULTRA SHORT HEART RATE VARIABILITY FOR EARLY RISK STRATIFICATION IN PATIENTS WITH ACUTE PULMONARY EMBOLISM

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Background and Aims: The clinical outcome of patients with pulmonary embolism (PE) has a wide spectrum, ranging from early resolution to death. Heart rate variability (HRV) reflects the oscillation in time intervals between heartbeats, which represents autonomic nervous system activity. Ultra-short HRV (usHRV) is measured over less than five minutes and may be a practical clinical tool. In this study, we evaluated the correlation between usHRV indices and outcomes of patients with acute PE.

Methods: This is a retrospective, single center analysis. All patients admitted to Rambam Healthcare Campus (Haifa, Israel), between January 2010 and June 2015 and diagnosed with acute PE, were assessed. Baseline patient parameters including demography, medical history, vital signs and laboratory results, were collected utilizing MDClone (Be'er Sheva, Israel) data platform. UsHRV was calculated from a 10-second electrocardiograph conducted in the emergency department, with the use of a designated software. Time [Standard Deviation of the Normal-to-Normal (NN) intervals (SDNN)] and frequency [High-Frequency (HF)] domain variables were considered. Logistic Regression (LR) and survival analysis were performed.

Results: The study included 161 patients (median age 67, 45% men). Multivariate LR model for mechanical ventilation, included HF (Adjusted Odds Ratio (AOR) 0.009, p-value 0.026). Model Area-Under-Curve (AUC) was 0.913. For development of shock, SDNN was included in a multivariate LR model (AOR 4.015, p-value 0.058, AUC 0.892). During a median follow-up of 4.7 years, SDNN <5.72 ms was associated with increased mortality over time (p-value 0.016).

Conclusions: UsHRV may be used for risk stratification of patients with acute PE.

761 / #EV0023

A COMPLEX HYPERCOAGULABLE STATE

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Case Description: A 51-years-old man was admitted due to a 15-days history of progressive dyspnea, asthenia, peripheral edema and increased abdominal perimeter. Medical history revealed alcohol use (>100 g/day) in the absence of any usual medication, drug abuse, hereditary diseases, trauma, immobility or recent surgery. After initial investigation, decompensated cirrhosis was assumed in the setting of alcohol related liver disease (LD). Considering d-dimers elevation, in the absence of available ultrasound, a thoracoabdominal-pelvic computer tomography was performed, describing absence of acute pulmonary thromboembolism, presence of findings suggestive of chronic LD and bilateral thrombosis of the common femoral veins.

Clinical Hypothesis: Thrombophilia / hypercoagulable status.

Diagnostic Pathways: Coagulation and autoimmune study, including antiphospholipid antibody syndrome study, were normal. The genetic study disclosed homozygous C677T mutation in the methylenetetrahydrofolate reductase (MTHFR) gene

 DOI: 10.12890/2022_V9Sup1

and heterozygous prothrombin G20210A mutation. Factor V Leiden mutation was negative. LD stratification revealed large esophageal varices (EV) according to Baveno Classification. After stabilization, the patient underwent variceal eradication and initiated enoxaparin 1.5 mg/Kg/day. No further thrombotic or hemorrhagic events were reported.

Discussion and Learning Points: Thrombophilia leads to the predisposition for thrombosis. Multiple hereditary defects may be present, interacting with acquired factors, establishing additional risk. The interaction between MTHFR and prothrombin mutations with decompensated cirrhosis may establish cumulative risk, crossing the threshold for thrombus formation, leading to the observed event. In patients with venous thrombosis, the decision to initiate anticoagulation is complex, prothrombotic and hemorrhagic risk factors should be considered individually.

Crowther MA, Kelton JG. Congenital thrombophilic states associated with venous thrombosis: a qualitative overview and proposed classification system. Ann Intern Med. 2003;138(2):128-34

2045 / #EV0024

RECURRENT PERICARDITIS : WHEN THE THOROUGH MEDICAL HISTORY MATTERS

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Case Description: We present a case of a 54-year old male patient, with no comorbidities, experienced recurrent pericarditis. He admitted to the hospital three times over the previus eleven months due to low grade fever, pleuritic pain, elevated inflammatory markers and small pericardiac effusion. He was treated all over this period with ibuprofen and colchicine. More detailed medical history concluded in recurrent fever episodes accompanied by thoracic pain once a year, resolved with NSAIDs, in young age.

Clinical Hypothesis: Systemic disease was suspected due to recurrent episodes of pericarditis

Diagnostic Pathways: During pericarditis investigation, chest X-Ray, heart echo, lung and abdomen ct were performed. Small pericardiac effusion was found. Evaluation for infectious and autoimmune diseases revealed positive anti-CCP and ANA antibodies. Because of his medical history genetic testing was carried out, resulting in M680I mutation. Finally, he was diagnosed with FMF and referred to a Rheumatologist for further evaluation and follow-up. Treatment with methylprednisolone was gradually tapered and colchicine remained the main treatment.

Discussion and Learning Points: Familial Mediterranean fever (FMF) is a recessive autosomal inherited autoinflammatory disease, manifested by inflammatory attacks of serosal membranes accompanied by fever and arthritis. Associated mutations of MEFV gene that encodes the protein 'pyrin' result in uncontrolled inflammation which persists even during attack-free periods. This chronic inflammation has been related to a lot of manifestations such us peritonitis, pleuritis, recurrent pericarditis, some of them unfrequent. A complete health and family history leads the investigation pathway to accurate diagnosis, that is often dismissed.

234 / #EV0025

THE HIDDEN MEANING OF DYSPNEA DURING THE COVID-19 PANDEMIC

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Case Description: We present the case of a 51 y.o. female, with history of severe SARS-CoV-2 infection three months before, who presented for fever, dyspnea on minimal exertion and dry cough, for the past two weeks.

Clinical Hypothesis: The clinical examination revealed signs of respiratory distress and right pulmonary consolidation syndrome, without any remarkable cardiovascular findings. Common laboratory tests for inflammation and infection were elevated. Further investigations were performed in order to reveal the site of infection.

Diagnostic Pathways: Chest X-ray aspect was suggestive of right inferior lobe pneumonia, thus treatment with ceftriaxone was initiated but the evolution was unfavourable, with progression of the pulmonary infiltrates bilateral. Surprisingly *Enteroccocus faecalis* was identified in hemocultures. The search for other primary source of infection or etiology continued, taking into account a possible neoplasic substrate. Whole body computed tomography did not reveal other source of infection or malignant substrate, other than pulmonary infiltrates. Bronchoscopy with biopsy excluded pulmonary neoplasm. Considering the history of long hospitalization for COVID-19, persistent dyspnea and the bacteria identified in hemocultures, echocardiography was performed and a 20 mm mass, highly suggestive of endocarditis, was identified on the tricuspid valve, with valve distruction and severe regurgitation.

Discussion and Learning Points: Four weeks after starting antibiotic treatment according to antibiogram, the evolution was favourable, with remission of symptoms, inflammatory syndrome and regression of the tricuspid mass. The effects of COVID-19 hospitalization can be observed long after discharge and severe, multiorgan infections can be some of them.

 DOI: 10.12890/2022_V9Sup1

675 / #EV0026

DESCRIPTION OF ROCKWOOD CLINICAL FRAILTY SCALE IN PLURYPATHOLOGICAL PATIENTS WITH ACUTE HEART FAILURE DURING THE COVID-19 PANDEMIC. PROFUND-IC REGISTRY

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Background and Aims: Heart failure (HF) is the leading cause of admission to Spanish hospitals. The Rockwood scale (RS) assesses frailty in elderly population. The aim of this study is to describe frailty using the RS in plurypathological patients admitted for decompensation of HF during the COVID-19 pandemic.

Methods: Analytical, prospective multicenter cohort study based on the PRUFUND-IC registry of the Spanish society of Internal Medicine. Conducted on 128 plurypathological patients hospitalised between September 2020 and May 2021 with main diagnosis of HF.

Results: 62 men and 66 women were included. The most frequent comorbidities were chronic kidney disease (50.8%), ischemic heart disease (43%) and chronic respiratory disease (38.3%). The RS was performed in 127 patients. Grouping the patients into categories 1-4 and 5-7, the percentage of death is 16.3% versus 32.4%, being this difference statistically significant. A ROC curve was made with the prediction of mortality at 30 days (area under the curve of 0.64, p <0.05).

Conclusions: Patients with HF present high rates of frailty. The frequency of frailty has been similar to other studies carried out before the COVID-19 pandemic, being the estimated prevalence of frailty in hospitalized patients with HF 56 to 76%.

	Total	30-day mortality
1. Very fit	1 (0.8%)	0
2. Well	2 (1.6%)	0
3. Well, with treated comorbid disease	29 (22.7%)	3 (10.3%)
4. Apparently vulnerable	33 (27.3%)	6 (17.1%)
5. Midly frail	26 (20.3%)	6 (23.1%)
6. Moderately frail	26 (20.3%)	7 (26.9%)
7. Severely frail	8 (6.3%)	4 (50%)

#EV0026 Table 1.

977 / #EV0027

CHARACTERISTICS OF PATIENTS WITH TYPE 2 DIABETES ADMITTED TO A SECOND LEVEL HOSPITAL OF THE ANDALUSIAN HEALTH SERVICE.

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Background and Aims: To know the baseline characteristics of patients diagnosed with type 2 diabetes mellitus (2DM) who require admission to the Internal Medicine Hospitalization Ward (IMHW).

Methods: We conducted a retrospective descriptive study whose unit of analysis was the histories of diabetic patients admitted to PHMI between January 1, 2021 and May 30, 2021. Patients who had died or with type 1 diabetes mellitus were excluded.

Results: A total of 79 diabetic patients were admitted to PHMI. 24 were excluded from the study. Of the 55 patients analyzed, 45.7% were women and 54.3% men. The mean age was 73.97 years (±10.95). The 20% had some form of dementia, 22.85% had oncologic disease, and 25% were dependent for most basic activities of daily living. With respect to cardiovascular risk factors (CVRF) in addition to diabetes, 94.28% had hypertension, 77.14% had hypercholesterolemia, 31.42% had atrial fibrillation and 22.85% smoked and were obese. Regarding diabetes itself, the mean value of the last glycosylated hemoglobin was 7 mg/dL (± 1.32). They had the following microvascular complications: 25.57% diabetic retinopathy; 40% diabetic nephropathy; 8.57% diabetic neuropathy; as well as the following macrovascular complications: 34.28% ischemic heart disease, 28.57% ischemic cerebrovascular disease; and up to 54.28% were diagnosed with heart failure. The most frequent cause of admission was urinary tract infection (22.85%) followed by decompensated heart failure (20%).

Conclusions: Diabetic patients admitted to internal medicine are elderly and with multiple cardiovascular risk factors. Admission should be an opportunity for a comprehensive assessment of the patient, and for adjust the treatment.

DOI: 10.12890/2022_V9Sup1

1259 / #EV0028

LEVOSIMENDAN – INTERNAL MEDICINE EXPERIENCE

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Background and Aims: Decompensated heart failure (dHF) is very common in the internal medicine ward. Among the therapeutic options, levosimendan has beneficial hemodynamic effects. The aim was to evaluate its tolerance and efficacy, in patients with dHF and reduced ejection fraction, in the internal medicine special care unit (MSCU).

Methods: Retrospective study of patients with dHF who underwent levosimendan therapy over an 18-month period.

Results: There were administered eleven doses of levosimendan, to ten patients (one patient with two hospitalizations), 75.5±6 years old, mostly males (72.7%). Average hospital stays of 11 days. At admission, 72.7% were in NYHA class III, the remaining in class IV; at discharge there was a drop of one class. NTproBNP at admission was 20166±13849pg/ml, with a mean reduction of 52.1%. 36.4% patients tolerated the maximum dose, 27,3% didn't tolerated dose titration and 36.4% needed dose reduction due to hypotension. Concomitant therapies: 36.4% ARNI, 18.2% ACE-I, 81.8% beta-blocker, 45.5% MRA, 72.7% diuretic. 36.4% presented hypokalemia, 18.2% hyponatremia and hypomagnesemia. 27.3% of patients needed adrenergic support due to hypotension. Two patients had self-limited supraventricular arrhythmia, not related to hypokalemia, and no need to suspend levosimendan. There was no in-hospital mortality, but 36.4% of patients died within 6 months.

Conclusions: Levosimendan has been shown to be effective and well tolerated. It can be safely administered at MSCU, with non-invasive monitoring, with symptomatic benefits demonstrated by the improvement in NYHA classification. There were no significant side effects or in-hospital mortality. Long-term mortality remains high, reflecting the poor prognosis of the disease.

420 / #EV0029

THE CROSS-CORRELATION OF LIPID SPECTRUM COMPONENTS IN HYPERTENSIVE PATIENTS

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Background and Aims: Hypertension is a cardiovascular pathology of atherosclerotic origin, associated with dyslipidemia, the study of which will help to optimize the cardiovascular continuum. Aim: to analyze the clinical characteristic of lipid spectrum components and their cross-correlation in hypertensive patients.

Methods: There were examined 332 hypertensive patients, (blood pressure level was 141.19±1.3 [138.65-143.74] / 87.79±0.78 [86.26-89.33] mmHg, age and anamnesis duration were 55.57±0.7 [54.2-56.94] years and 6.53±0.47 [5.61-7.46] years accordingly. Lipid spectrum components were assessed via automatic clinical biochemical analyzer.

Results: The medium fasting range of total cholesterol, high, low and very low density lipoproteins, triglycerides and indices of atherogenicity was 5.2±0.08 [5.05-5.35] mmol/L, 1.31±0.02 [1.26-1.36] mmol/L, 3.05±0.07 [2.91-3.18] mmol/L, 0.84±0.03 [0.78-0.89] mmol/L, 1.84±0.07 [1.71-1.97] mmol/L and 3.26±0.08 [3.1-3.42] units respectively. Based on statistical analysis there were defined correlations between next parameters: total cholesterol and low density lipoproteins ($r=0.92$, $P<0.001$), very low density lipoproteins and triglycerides ($r=0.99$, $P<0.001$), indices of atherogenicity and high ($r=-0.59$, $P<0.05$), low ($r=0.58$, $P<0.05$), very low density lipoproteins ($r=0.59$, $P<0.05$), triglycerides ($r=0.59$, $P<0.05$) as well, systolic and diastolic blood pressure ($r=0.69$, $P<0.001$).

Conclusions: 1. There are no found any statistically reliable correlations between lipid spectrum components and age, duration of hypertension, systemic blood pressure level too in hypertensive patients. 2. In hypertensive population the positive correlations between total cholesterol and low density lipoproteins, very low density lipoproteins and triglycerides are the most significant as well as systemic blood pressure level parameters. 3. Indices of atherogenicity level equally depends on both pro- and antiatherogenic lipid spectrum components in subjects with partially controlled hypertension.

676 / #EV0030

RELATION BETWEEN CARDIOVASCULAR RISK IN PATIENTS WITH APNEA-HYPOPNEA SYNDROME AND PULSE TRANSIT INTERVAL

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Background and Aims: Analyze the correlation between the pulse transit interval (ITP, indirect measure of arterial stiffness), measured in the polygraph of patients with sleep apnea-hypopnea syndrome (SAHS) and its relationship with cardiovascular events and mortality

Methods: A case-control study nested in a cohort was designed, with the cohort being those patients diagnosed with SAHS in our center during 2010 (n=538). The cases (n=46) were those with cardiovascular events (acute myocardial infarction/unstable angina, cerebrovascular accident/TIA, peripheral arterial disease) or death during follow-up. Controls (n=46) were matched by sex. The mean ITP of the cases and controls was evaluated, subsequently performing a multivariate analysis with logistic regression.

DOI: 10.12890/2022_V9Sup1

Results: The cases presented a lower ITP compared to the controls (299.9±16.9 vs 306.0±12.8; p ¼ 0.05). Differences were found between cases and controls in the following parameters: arterial hypertension (79.2% vs 64.6% p ¼ 0.11), SAHS severity (60.8 vs 39.2 p ¼ 0.07), glomerular filtration rate (69.3±27.4 vs 85.5 ±19.9 p ¼ 0.01), age (70.36±10.2 vs 63.1±10.9 p ¼ 0.01), smoker or ex-smoker (62.5% vs 41.6% p ¼ 0.07), COPD (29.2% vs 14.6% p ¼ 0.08) and saturation nocturnal mean (90.5±2.7 vs 92.2±1.8 p ¼ 0.01)

Conclusions: A significantly higher value of pulse transit interval (ITP) was observed in the cases compared to the controls. Furthermore, as previously stated, the mean ITP, as well as smoking, glomerular filtration and mean saturation, showed significant differences between cases and controls

2383 / #EV0031

PERIPHERAL ARTERIAL DISEASE, A POOR RELATIVE OF CARDIOVASCULAR RISK

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Case Description: A 62-year-old women with previous history of smoking habits and depression, was admitted for a mild stroke. A brief study was made which identified mixed dyslipidaemia and mild stenosis in left internal carotid artery, as well as atheromatous irregularities in carotid bifurcation. She was discharge for her own will on the forth day of admission, medicated with high potency statin, acetylsalicylic acid, indication for smoking cessation and monitor blood pressure, and referred to proceed the remaining study in ambulatory.

Clinical Hypothesis: In between, the patient was found in the emergency department several times for sharp pain in a foot, numbness in the hand, and low blood pressure. After more careful examination, a blood pressure differential of 60 mmHg was found with a right arm-ankle ratio of 1.48.

Diagnostic Pathways: An angio-CT revealed diffuse atherosclerotic disease, purely calcified or mix component, involving the main arteries, including hemodynamically significative stenosis of the left subclavian artery, as well as the right common femoral artery as seen in the ultrasound. After referral to vascular surgery, the right leg and left arm were revascularized.

Discussion and Learning Points: Atherosclerosis is responsible for several diseases with high morbid-mortality, as major cardiac or cerebral events. Peripheral vascular disease is frequently left for second plan, as it does not affect vital organs and causes vague and unprecise symptoms, like distal paraesthesias and transitory cooling. In this case, acute peripheric ischemia was avoided, which could have caused amputation and severe morbidity. However, a continuous awareness for the disease is essential.

2368 / #EV0032

CLINICAL INERTIA IN THE CONTROL OF DYSLIPIDEMIA IN POST-ACUTE MYOCARDIAL INFARCTION

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Background and Aims: The control of cardiovascular risk factors (CVRF) is of paramount importance in patients that survive an acute myocardial infarction (MI). Dyslipidemia is one of such CVRF with a direct influence on coronaryartery disease. According to the latest European Society of Cardiology guidelines, the therapeutic target for dyslipidemia in patients at very high cardiovascular risk is a 50% reduction in LDL cholesterol (c-LDL) associated with c-LDL levels below 55 mg/dL. Our aim was to evaluate the control of dyslipidemia in patients hospitalized for MI.

Methods: This is a retrospective study based in the review of the clinical files of patients hospitalized for MI, between September 2019 and February 2020, in a secondary hospital.

Results: 58 patients were included in the study. 71% of patients were male. The mean age was 65±11 years. At the time of the MI, the mean level of total cholesterol was 190±45 mg/dL and c-LDL level was 118±42 mg/dL. Upon reassessment of the lipid profile, the mean total cholesterol level was 140±30 mg/dL and c-LDL level was 73±26 mg/dL. 28% of patients achieved a reduction of at least 50% of c-LDL levels and 31% of patients had c-LDL levels below 55 mg/dL, achieving an average reduction of c-LDL of 32%; of the patients who did not reach the therapeutic targets, only 38% underwent an intensification of lipid-lowering therapy.

Conclusions: There is a clear inertia regarding the intensification of dyslipidemia control. These data points to the urgent need to promote the effective control of CVRF in order to improve the prognosis of these patients.

253 / #EV0033

ISOLATED CARDIAC AMYLOIDOSIS: THE DIAGNOSTIC IMPORTANCE OF IMAGING

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Case Description: A 68-year-old man with a history of arterial hypertension, coronary artery disease with preserved ejection fraction heart failure, type 2 diabetes and chronic myeloid leukemia (BCR-ABL) under nilotinib was admitted with dyspnoea. Family history was irrelevant. He presented a blood pressure of 230/110 mmHg, heart rate of 140 bpm, irregular radial pulse, crackles on lung auscultation, jugular venous distension and peripheral oedema.

DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: Acute heart failure on chronic ischemic and amyloid cardiomyopathy.
Diagnostic Pathways: ECG unveiled tachycardic atrial fibrillation, left ventricular hypertrophy criteria and no ST segment elevation criteria. Room air arterial blood gasometry showed type 1 respiratory failure (PaO2 49 mmHg). Troponin I was increased (5.24 ug/L), as well as NT-proBNP (4715 ng/L). Serum and urine protein electrophoresis with immunofixation and serum free light chains measurement were normal. Echocardiography showed an infiltrative pattern of myocardial walls, no new segmental kinetic changes nor severe valvular dysfunction. Cardiac magnetic resonance (CMR) presented a delayed gadolinium enhancement pattern of auricular walls and interauricular septum. Cardiac amyloidosis was assumed. Nilotinib was suspended and the patient was referred for cardiac scintigraphy and endomyocardial biopsy.
Discussion and Learning Points: Cardiac amyloidosis is a frequently underdiagnosed condition in heart failure patients. It is majorly caused by transthyretin amyloidosis (ATTR) or light chain amyloidosis (AL). Isolated cardiac presentation is rare and echocardiography and CMR play a crucial role in diagnosis. The lack of monoclonal protein and family history favours the wild-type ATTR amyloidosis hypothesis. Prognosis is poor with a median survival of 3.5 years.

1158 / #EV0034

ARTERIAL HYPERTENSION: DOES IT PERSIST OR RESIST? ABOUT A CASE

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Case Description: A 59-year-old male, uncontrolled hypertensive and diabetic with 20 years of evolution, insulin treated, with poor metabolic control and dyslipidemia. Dependent for right hemiparesis sequel to stroke, with a history of multiple visits to the Emergency Department for hypertensive crises. Hospitalized for critical ischemia of the left lower limb, he underwent a proximal amputation, and medical support was requested to internal medicine in the postoperative period due to a high tension profile (systolic ~250 mmHg). There was a need to introduce 6 antihypertensive agents to enable a progressive reduction in labetalol and dinitrate infusions. A study was carried out to exclude secondary causes of hypertension, highlighting slight stenosis of the right renal artery (<50%), documented on abdominal CT angiography, as well as nephrotic proteinuria (5.1 g/24h). The case was reviewed in a multidisciplinary team (Endocrinology, Vascular Surgery and Nephrology), which considered renal/renovascular hypertension unlikely. It is important to highlight the gradual improvement under the established drugs, with the patient being discharged with a controlled tension profile (~130 mmHg).
Clinical Hypothesis: Resistant arterial hypertension.
Diagnostic Pathways: Renal CT and echography, blood tests with thyroid function, inogram, renin and aldosterone; cortisol and metanephrines in urine
Discussion and Learning Points: The authors highlight this case due to the diagnostic approach adopted, interpreted as a case of resistant arterial hypertension. Despite the above, we emphasize this complex situation in a patient with multiple uncontrolled vascular risk factors that, although not valued for an interventional approach, may have effectively contributed to a renovascular hypertensive component.

2473 / #EV0035

WHY SUCH A THROMBOTIC TENDENCY?

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Case Description: A 65-year-old male, went to the ER due to dry cough, dyspnoea, progressive fatigue to minor efforts and posterior thoracic pleuritic pain with one-week evolution. On admission, the patient had partial respiratory insufficiency, requiring oxygen 2L per minute. From the clinical interview it was figured out a deep venous thrombosis of right lower limb, submitted to anticoagulation until 3 months ago, from unidentified aetiology. Blood results showed D-dimer 8 mg/L, in a patient with a Geneva score=6 points.
Clinical Hypothesis: Therefore, angio-CT was conducted revealing pulmonary embolism of right major branch, extending to right upper lobe and left inferior lobe. Anticoagulation weight-dose adjusted was started and the patient admitted in the ward.
Diagnostic Pathways: Concerning a nosologic approach for the event, an abdominopelvic CT scan did not show any signs regarding an underlying oncologic diagnosis. However, it exposed an infrarenal dilatation of abdominal aorta with eccentric parietal thrombosis associated. Furthermore, by reaccessing patient's familiar history, we discovered that both sisters have had thrombotic events in the past. Hypercoagulation and autoimmune workup identified factor V Leiden R506Q heterozygous variant and positive HLA-B51/52.
Discussion and Learning Points: A detailed clinical history was important to convey a cause-related approach. While factor V Leiden mutation is hereditary and related with venous territory, Behçet's disease-related thrombosis affects any vessels, being important a prevention or therapeutic attitude. The founded results can support this patient's thrombotic tendency and raise suspicion of diagnosis which are well-known for their association with thrombotic events as seen in this patient.

 DOI: 10.12890/2022_V9Sup1

2488 / #EV0036

COR BOVIS

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Case Description: A 73-year-old male, went to the ER due to chronic cough associated to 2 syncope episodes and progressive fatigue. He had history of high blood pressure, obesity, hypothyroidism, obstructive sleep apnea and prostate neoplasia, submitted to surgery and without any suspicion of relapse. Non-smoker. No major epidemiological context has been identified. Physical exam demonstrated a diminished vesicular murmur on inferior fields. Hb 11.3 g/dL, NTproBNP 171 pg/mL, D-dimers 4.44 mg/L, CRP 6.4 3mg/dL, troponin and PCT were negative. RT-PCR SARS CoV-2 negative. Chest radiography exhibited cor bovis. Angio-CT scan was conducted confirming a 36 mm thickness pericardial effusion and excluded pulmonary embolism.

Clinical Hypothesis: Patient was warded with this diagnosis and an etiologic approach proceeded. Transthoracic echocardiogram showed no tamponade criteria.

Diagnostic Pathways: A pericardiocentesis was done: pericardial liquid suggestive of exudate, no neoplastic cells and bacteriological and mycobacteriological exams were negative. Body CT scan did not show any suspicion of oncologic diagnosis or relapse. PSA and thyroid function were normal. Autoimmune panel and viral serologic tests (HIV, HBV, HCV, HSV 1 and 2, EVB, CMV, VZV and HHV6) were all negative. *Borrelia burgdorferi*, *Coxiella burnetii*, Epstein Barr and Parvovirus IgG were positive but negative IgM. In discussion with Infectology experts it was assumed a probable idiopathic etiology. He repeated echocardiogram after pericardiocentesis, which identified pericardial effusion, without hemodynamic significance. Clinical evolution was favourable and the patient discharged.

Discussion and Learning Points: We herein underline the importance of ruling out causes of pericardial effusion prior to assuming an idiopathic etiology. According to literature it corresponds to at least one-third of the causes.

1936 / #EV0037

DIAGNOSIS OF ARTERIAL HYPERTENSION IN YOUNG PEOPLE.

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Background and Aims: Arterial hypertension occurs in about 2% in young people. It usually occurs secondary to diseases of other organs, mainly the kidneys. The aim of the study was to assess the importance of imaging techniques in the diagnosis of hypertension in young people.

Methods: The study included a group of 120 patients aged 15-30 years, with arterial hypertension. All patients underwent Doppler Ultrasound of the renal arteries (first exam) . Patients with questionable ultrasound results were referred for repeated USG after preparation (simethicone). Patients with still ambiguous ultrasound images were referred for ANGIO-MR examination of the renal arteries.

Results: In first ultrasound examination, renal artery stenosis was diagnosed in 5 patients, including stenosis of fibromuscular dysplasia unilateral- in 3 patients, bilateral- in 1 patient. 1 patient had inflammatory stenosis. In the group of 25 patients, in whom the first ultrasound image was not diagnostic, during repeater USG 1 patient was diagnosed with unilateral stenosis of fibromuscular dysplasia in a follow-up examination. In the group of 12 patients referred for ANGIO-MR, 2 patients were diagnosed with unilateral renal artery stenosis. In the group of the remaining patients hemodynamically significant stenosis was excluded during first examination.

Conclusions: The diagnostic effectiveness of ultrasound in the imaging of renal arteries is 90%. In ultrasound examination, narrowing of the renal arteries was found in 5%. The ANGIO-MR examination revealed a narrowing of the renal arteries in 0.8%, which was not diagnosed on ultrasound examination. Ultrasound examination is the method of choice in the diagnosis of renal arteries.

504 / #EV0038

VENOUS THROMBOEMBOLISM IN A PATIENT WITH ACQUIRED FV INHIBITOR

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Case Description: A 73-year-old male was admitted to the ED on June 2021 because of unprovoked deep vein thrombosis (DVT) in his right leg. In September 2020, the patient was admitted to a different hospital for pulmonary embolism (PE). Warfarin was promptly discontinued due to marked prolonged clotting times. FV activity was found to be 0% with anti-FV inhibitors of 2.8 Bethesda units/ml. Mixing test fails to correct, so diagnosis of acquired haemophilia was made. In view of the ongoing thrombosis and absence of bleeding, a DOAC was started and in April 2021, in view of the completely healing of PE and because of INR levels above 8, anticoagulant was discontinued. A period of relative well-being followed. Laboratory evaluations showed INR 2.08, aPTT 56 s. Enoxaparin 1 mg/Kg bid was started with prolongation of clotting times. Methylprednisolone was started with progressive normalization of clotting times and FV activity (55%), even during DOAC.

Clinical Hypothesis: Thrombophilia, autoimmune disease, neoplasia.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: blood tests showed INR 22, aPTT 251 s, with no signs of bleeding. FV activity: 0.1% (nv 50-120). Antiphospholipid antibodies, protein C and S deficiency, prothrombin gene mutation, factor V Leiden, JAK2 mutation, ANA, ENA and CT scan were negative.
Discussion and Learning Points: This is a case of idiopathic acquired haemophilia associated with venous thrombosis. We did not observed a severely reduced thrombin generation as suggested by coagulation abnormalities diagnosed. In contrast,we found an essentially increase of total thrombin generation,suggesting an hypercoagulable state, underliyng the importance of thrombin generation test in patients with coagulation bleeding abnormalities but doubtful clinical haemorrhage tendency.

381 / #EV0039

CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE: IS LIVER FIBROSIS ONE OF THEM ?

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Background and Aims: Nonalcoholic fatty liver (NAFLD) has become a common diagnosis in clinical practice of several medical specialties, and the prevalence in the general population is increasing together with obesity, type 2 diabetes and the metabolic syndrome. In patients with steatohepatitis many liver and hearth-related morbidity and mortality are observed.
Methods: We selected 120 NAFLD patients, measured the body mass index, blood pressure and obtained values for PCR; IL6; IL8; TNFα; erythropoietin. Using non-invasives methods (Fib-4, Forns, FLI, APRI, ASPRI) we calculated the fibrosis index and cardiovascular risk using the Framingham Cardiac Risk score and the HeartSCORE. Patients answered questions about their life style (diet, phisical activity)/medications/other comorbidities.
Results: NAFLD patients are at high risk for cardio-vascular diseases and death.Increased fat accumulation in the liver is a marker of hepatic insulin-resistance and a close correlate between components of metabolic syndrome independent of obesity. The impact of diet and physical activity on liver fat / fibrosis independent of body mass index should be studied more since the prevalence of metabolic syndrome and cardio-vascular diseases is rapidly increasing.
Conclusions: As already proved by many studies, NAFLD patients are at high risk for cardio-vascular diseases and death. Increased fat accumulation in the liver is a marker of hepatic insulin-resistance and a close correlate of all components of the metabolic syndrome independent of obesity. The impact of diet composition and of physical activity on liver fat /fibrosis independent of body mass index should be studied more since the prevalence of metabolic syndrome and cardio-vascular diseases is rapidly increasing.

1076 / #EV0040

EFFECTS OF LIVER TRANSPLANTATION ON CARDIAC FUNCTION

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Background and Aims: Cirrhotic cardiomyopathy affects about 50% of patients with cirrhosis. The cardiogenic cirrhosis symptoms are aspecific and the main diagnostic tool is transthoracic echocardiography (TTE). The aim of this study was to find out if and how liver transplantation (LT) changed the echocardiographic parameters in a cohort of patients undergoing LT.
Methods: The study population included 102 (61 (59.8%) males; median age 59 [54-65] years) patients who underwent TTE before and after LT. We evaluated echocardiographic parameters changes before and after LT.
Results: The median time between the first ultrasonography (US) assessment and LT was 51 [26-161] days, between LT and the following US assessment was 476 [133-880] days. At the end of the follow-up, 76 (74.5%) patients survived, 16 (15.7%) died and 10 (9.8%) were lost. Both left and right side heart chambers significantly decreased in volume after LT; interestingly, the ejection fraction (EF) (62,9%[55,8-66,6]; 58,8%[52,1-62,9];p<0,001) and the TAPSE (24mm[22-28]; 21mm[19-23];p<0,001) decreased as well, despite remaining in the range of normality. An increase of right ventricular global strain (-23,66[-26,95 - -20,56]; -19,94 [-22,3 - -17,12];p<0,001) and left ventricular global longitudinal strain (-21,5[-24 - -19,3]; -18,13[-20 - -15,14];p<0,001) was also observed. Though pulmonary arterial pressure (PAPs) did not change significantly, RV-pulmonary arterial coupling was significantly lower after LT either as TAPSE/PAPs (0,9[0,76-1,11]; 0,8[0,64-1]) or RVfwLS/PAPs(-0,89[-1,24 - -0,66]; -0,78[-1,08 - -0,54]).
Conclusions: The main echocardiographic parameters changes observed after LT include: a reduction of the chambers' volume with worsening of right and left ventricular function, although within normal limits; a worsening of RV-pulmonary arterial coupling that has independent prognostic value in different clinical scenarios.

DOI: 10.12890/2022_V9Sup1

1423 / #EV0041

ARTERIAL HYPERTENSION AND LEFT VENTRICULAR NONCOMPACTATION - CASUALITY OR COINCIDENCE?

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Case Description: A 31-year-old female presented to the ER with hypertensive crisis (Systolic blood pressure >220 mmHg) without hypertensive emergency criteria. The blood pressure levels were only controlled after multiple antihypertensive therapy.

Clinical Hypothesis: Is this a case of secondary hypertension in a young female?

Diagnostic Pathways: Hystory, examination, and extensive clinical investigation showed no triggering factor or cause of secondary hypertension or heart failure. Full blood count, urinary function, electrolyte, thyroid function, aldosterone e renin levels were normal. Also, ACTH and cortisol levels were normal as well as urinary and seric metanephrines and urinary catecholamines. Urinary ionogram was normal. Renal ultrasound with doppler study showed no signs of renovascular hypertension. CT abdominal scan showed no vascular abnormalities. Head CT had also no significant changes. In the other hand, echocardiogram showed signs of left ventricular noncompaction (LVNC) with an ejection fraction of 51%.

Discussion and Learning Points: LVNC is is a heart-muscle disorder characterized by prominent myocardial trabeculations and deep intertrabecular recesses in the LV cavity. It is still question of debate if this is an anatomical phenotype or a distinct cardiomyopathy. The clinical presentation of LVNC varies widely from asymptomatic to end-stage heart failure or sudden cardiac death, and the diagnostic criteria are not standardized. We hypothesize if the arterial hypertension in this patient is a cause or effect of LVNC.

2340 / #EV0042

URIC ACID: A NEW THERAPEUTIC TARGET IN HEART FAILURE?

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Background and Aims: Heart Failure (HF) is a complex syndrome that affects more than 26 millions of people and it is the main cause of hospital admission. The uric acid (UA) is the puryn metabolism final product and when its increased is defined as hyperuricemia. The rise in UA values seems to be related with the appearance of gout, specially in patients with cardiometabolic diseases. Gout and hyperuricemia can also be caused by some drugs such as diuretics, which are commonly in acute HF. Currently there is some controversia over gout and hyperuricemia as independent cardiovascular risk factors. Some studies show an association of hyperuricemia with HF prognosis: higher UA values seem to be related to more severe HF.

Methods: To try to assess the characteristics of HF and hyperuricemic patients, a population followed up in a specialized HF unit during 3 months with UA >6.9 mg/dL was analyzed.

Results: Of a total of 199 patients, 94 had UA>6.9 mg/dL. 64% of them were taking furosemide and 52% taking spironolactone. Of the 94 patients, 17% were taking allopurinol and of these 69% had a previous episode of gout. Concerning the ejection fraction (LVEF): 65% of hyperuricemic patients and 72% of non hyperuricemic have a LVEF <40%.

Conclusions: More than 50% of patients with HF and hyperuricemia are male and more than 80% of them are over 60 years-old. Around 2/3 of the patients with hyperuricemia were on diuretics and more than 2/3 of the patients with gout were under treatment with allopurinol.

148 / #EV0043

SEVERE ANEMIA IN A SYMPTOMATIC PATIENT WITH SIGNIFICANT CALCIFIC AORTIC STENOSIS

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Case Description: A 68-years-old patient with a descending colon neoplasm, operated and chemotreated 8 years ago, requests ambulatory consultation for repeated syncope in the last month, related to minimal effort. Clinical examination shows sclerotegumantary pallor and systolic III/VI murmur, irradiated rtowards the apex and on both carotids, suggestig aortic stenosis, confirmed by echocardiography, which identifies severe, calcified aortic stenosis.

Clinical Hypothesis: Hemoglobin was 5.5 g/dl, normocityc, normochrome erythrocytes. The patient was refferd to the gastroenterology department for blood repalcement and endoscopic exploration considering the hystory and frecvent association between aortic stenosis and angiodisplazia. In this case syncopy was precipitated by severe anemia , probably in anterior well tolerated severe aortic stenosis.

Diagnostic Pathways: Superior and inferior endoscopic explorations didn t identify any source of bleeding. Anemia was associated with intravascular haemolysisin calcific valves. Coronary angiography showed unsignificant stenosis Ecocardiography confirms severe aortic stenosis with v max 4.1 m/s si VS-Ao rest gradient 63 mmHg. Heart team decided aortic valve replacement with mecanic prothesis. After that ,anemia spontaneously corrected ,even the patient was orraly antocoagulated.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: The indication for aortic valve replacement in patients with significant aortic stenosis is simptomatology. In cases of anemias with indeterminated reson need for aortic surgery might be considered even there is no symptoms of aortic stenosis. Hematologic abdormalities caused by aortic stenosis have mecanisms incompletely explained and improve after aortic valve replacement.

1638 / #EV0044

TRANSIENT SYMPTOMATIC HYPOTENSIVE EPISODES NEGATIVELY AFFECT ORGAN FUNCTION IN PATIENTS WITH ARTERIAL HYPERTENSION

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Background and Aims: Low blood pressure may be as harmful as high. Symptomatic hypotensive episodes should be a manifestation of circulatory disorders of hypertension – mediated organs especially among hypertensive patients. The aim is to study the relationship between the symptomatic hypotensive episodes and function hypertension – mediated organs.
Methods: 106 patients aged between 50 and 65 years with hypertension without myocardial infarction or stroke in anamnesis were studied. A questionnaire developed by the authors was used to identify symptomatic hypotension. Complete blood count, serum creatinine, eGFR, NT-proBNP, Montreal Cognitive Assessment were evaluated among all patients.
Results: Symptomatic hypotensive episodes were observed in 52.4%. Among patient with symptomatic hypotensive episodes in comparison with patients without ones decrease of hemoglobin 128.5 vs 136.0 g/l (p=0.02), eGFR 61.9 vs 72.1 mL/min (p=0.001), increase NT- proBNP 179.8 vs 65.0 pg/ml (p=0.001) were obtained. Patients with symptomatic hypotensive episodes have cognitive impairment - 23.2 MoCA score. In absence of symptomatic hypotensive episodes cognitive function was normal 26.5 MoCA score (p=0,007).
Conclusions: Among hypertensive patient symptomatic hypotensive episodes are associated with deterioration of kidney and brain function.

2320 / #EV0045

EMBOLECTOMY IN INTERMEDIATE-HIGH RISK PULMONARY EMBOLISM AND PROGNOSTIC IMPACT – A CASE REPORT

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Case Description: Intermediate-high risk pulmonary embolism (PE) presents with echocardiographic signs of right ventricle dysfunction and/or elevated cardiac biomarkers, in the absence of shock or hypotension. It is yet unclear if these patients should be offered thrombolysis or embolectomy, but some studies report the improvement of cardiac status 48 hours after thrombectomy with long term favorable prognosis. We present the case of a 74-years-old patient, who was admitted with two weeks history of progressive dyspnea and sinus tachycardia, but normotensive.
Clinical Hypothesis: Complementary study showed hypocapnia without hypoxemia, D-dimer of 5177 pg/mL, pro-BNP 4832 pg/mL and normal cardiac enzyme. The echocardiography showed dilated right ventricle, rectification of the interventricular septum, pulmonary artery systolic pressure of 84 mmHg, and depression of systolic function; a central and bilateral thrombus involving both pulmonary arteries with partial obstruction extending to the main branches of all lobes, was seen in angiotomography.
Diagnostic Pathways: After 72 h treatment with low molecular weight heparin, he deteriorated with respiratory insufficiency, maintaining hemodynamic stability (intermediate-high risk PE). Considering the subacute onset of dyspnea, the thrombus burden and cardiac status, he was submited to thromboembolectomy without thrombolysis in a reference center, without major complications.
Discussion and Learning Points: Five days after the procedure the echocardiography revealed improvement of right ventricular overload and systolic function. He was then discharged with oral anticoagulation. Despite the limited information about the most suitable first-line treatment and their outcomes in intermediate-high risk PE, these patients should be evaluated in multidisciplinary medical and surgical setup for the optimal and individualized treatment.

709 / #EV0046

LATE DIAGNOSIS OF AORTIC DISSECTION

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Case Description: A 76-year-old woman with a personal history of hypertension, chronic kidney disease and atrial fibrillation. Admitted to the emergency department due to sudden onset of chest pain, with dorsal irradiation, after defecatory effort.
The patient was hemodynamically stable, with no changes on physical examination.
Clinical Hypothesis: Considering aortic dissection as an hypothesis, the patiente underwent a thoracic CT angiography wich only highlighted the presence of pericardial and pleural effusion.
Diagnostic Pathways: To better evaluate the pericardial effusion, a transthoracic echocardiogram was performed: "Ectatic ascending aorta, with suggestive image of a flap downstream of the sinotubular junction". Due to the highly suggestive clinical

 DOI: 10.12890/2022_V9Sup1

features, together with echocardiography findings, pointing to aortic dissection, a review of the CT angiography images was performed: "(...) strong suggestion of a dissection in the ascending thoracic aorta, associated with pericardial effusion (...) indicating hemopericardium (...)". For diagnostic confirmation, CT angiography with gating was performed. After 5 days of medical therapy, the patient underwent cardiothoracic surgery.
Discussion and Learning Points: Aortic dissection results from the tearing of the intima, creating a "false path".
Among various associated risk factors, high blood pressure stands out. An abrupt onset of lacerating chest pain is one of the most common clinical findings.
This case draws attention to the difficulty and delay in diagnosis. The mortality rate increases 1 to 2% per hour without treatment. The main causes of death are aortic rupture with hemopericardium and/or hemothorax, or in more severe cases, with exsanguination. Other complications include ischemia of internal organs due to decreased perfusion. Treatment involves blood pressure control and cardiothoracic surgery.

1750 / #EV0047

WHEN EXAM CHANGES FALL SHORT TO JUSTIFY THE SYMTOMS

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Case Description: We present the case of an 80-year-old man who was sent to the outpatient department for shortness of breath with small efforts. While entering the office, having walked 10 meters, he could speak two to three words at once. On physical examination, he was alert, responsive, tachypnoeic, had a 95% oxygen saturation on room air, and no changes on pulmonary auscultation. He was normotensive, tachycardic with an irregularly irregular pulse, and had a grade III mitral systolic murmur. He had no peripheral edema and showed no perfusion changes.
Clinical Hypothesis: Left heart failure with valvular heart disease, auricular fibrillation, COPD or other lung diseases, pulmonary hypertension.
Diagnostic Pathways: Cardiac monitoring showed atrial fibrillation with a fast ventricular rate. After frequency control, he showed long pauses of more than 3 seconds. Echocardiogram showed left ventricular hypertrophy, moderate mitral valve regurgitation with preserved ejection fraction but severe pulmonary hypertension with estimated pulmonary artery systolic pressure of 60 mmHg. Chest CT scan showed no alterations and lung function tests showed mild bronchial obstruction. After frequency control, pacemaker implantation, and medical therapy optimization the patient remained very symptomatic and the degree of pulmonary hypertension seemed out of proportion of these mild changes. Proteinogram showed a gamma peak. Myelogram and bone biopsy showed changes suggestive of Waldenström macroglobulinemia.
Discussion and Learning Points: This case shows that we should be alert for rare causes of a common symptom when the most usual changes seem to fall short of explaining the full extent of the disease.

202 / #EV0048

NUTRITIONAL STATUS AND MORTALITY IN PATIENTS WITH HEART FAILURE (HF)

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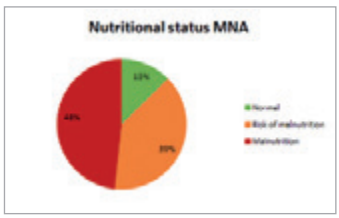
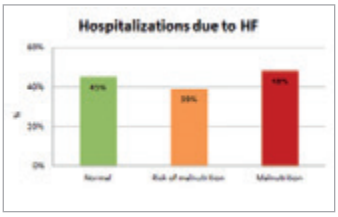
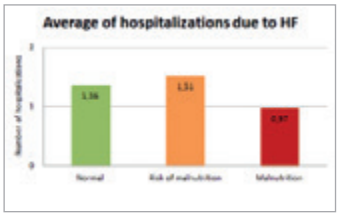
Background and Aims: To determine nutritional status (NS) of patients with HF who require hospitalization. To know relationship between NS, cardiovascular rehospitalization rate and mortality.
Methods: We evaluated the NS of 87 patients hospitalized for HF with Mini-nutritional assessment (MNA) scale. Annual cut-off of patients admitted by HF to the Internal Medicine Ward was made during 3 consecutive months for 5 years. Event rates according MNA were analyzed.
Results: Among the 87 patients, 3 lost their follow-up. 12.6% patients had a normal NS, 39.1% were at risk of malnutrition and 48.3% were malnourished (Figure 1). Total mortality rate was 73%, a 53% was attributable to HF. Mortality on malnutrition group was 85%, and 64% for normal NS and those at risk of malnutrition combined groups (Figure 2). 45% of the patients with normal NS were hospitalized (1.36 hospitalizations average); 39% at risk of malnutrition required hospitalization (1.51 hospitalizations average) and 48% of malnourished patients (0.97 hospitalizations average) (Figure 3-4). The lower rate of readmissions in the malnutrition group seems attributable to its high mortality. Median survival was 490 days for normal NS, 426 for those at risk and 286 for malnourished patients (Figure 5). Main causes of mortality are described in graphic 6; the most frequent cause in all groups was HF (57%, 33% and 45% respectively). Cumulative survival was significantly lower in malnourished in comparison to normal NS (Kaplan-Meier curve Log rank 0.017) (Graphic7).
Conclusions: Nearly half of HF patients who require hospitalization are malnourished. Malnutrition in HF is related with lower survival and main mortality cause is HF itself.



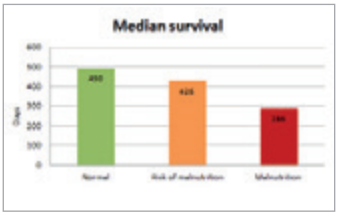
#EV0048 Figure 1: Nutritional status of the patients with HF.
#EV0048 Figure 2: Mortality due to HF depending on the nutritional status.

DOI: 10.12890/2022_V9Sup1

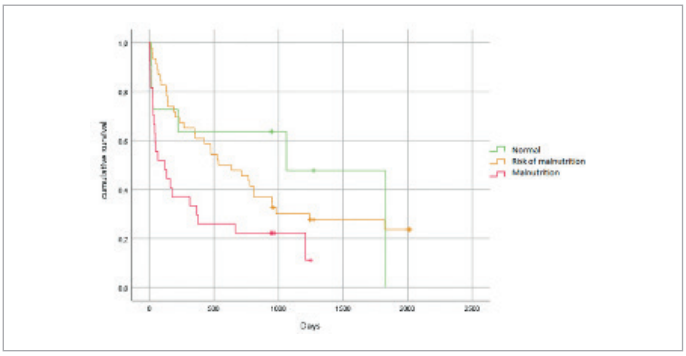




#EV0048 Figure 3: Hospitalizations due to HF depending on the nutritional status.
#EV0048 Figure 4: Average of hospitalizations due to HF depending on the nutritional status.



#EV0048 Figure 5: Median survival depending on the nutritional status.
#EV0048 Figure 6: Causes of global mortality.



#EV0048 Figure 7: Kaplan Meier cumulative survival graphic depending on the nutritional status.

2408 / #EV0049

CLAVICULAR EXOSTOSIS A RARE CAUSE OF PAGET-SCHROETTER SYNDROME

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Case Description: A 47-year-old man presented to our department with a 2-days history of fever, acute pain, swelling and erythema of his left upper limb. His background history included obesity and hypertension. He was a commercial agent and he had recently made a long journey by car with his left arm abducted.
Clinical Hypothesis: Paget-Schroetter Syndrome (PSS), a venous form of Thoracic Outlet Syndrome (TOS).
Diagnostic Pathways: Laboratory testing showed elevation of D-dimer and inflammatory markers. Venous duplex ultrasound and enhanced computed tomography (CT) revealed occlusive thrombosis of the left subclavian-axillary vein, internal jugular vein and left brachiocephalic vein with signs of thrombophlebitis. The investigations did not reveal any coagulation disorder and malignancy. The suspect of venous variant of TOS was confirmed by phlebography with provocative manoeuvres and the review of angio-CT images showed the presence of clavicular exostosis imprinting subclavian vein.
Discussion and Learning Points: Paget-Schroetter Syndrome (PSS) is a venous form of Thoracic Outlet Syndrome (TOS), usually seen in association with repetitive upper limb activity. This condition is due to anatomical abnormalities at the thoracic outlet and repetitive trauma to the endothelium of the subclavian vein. PSS accounts for 15% of all upper extremity deep venous thrombosis especially in active young people. Clavicular exostosis represents an unusual cause of PSS and only few cases were reported in literature.

286 / #EV0050

DIAGNOSTIC APPROACH TO SYNCOPE IN INTERNAL MEDICINE DEPARTMENTS AND EFFECT ON SHORT-TERM MORTALITY

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Background and Aims: Syncope is a common and challenging clinical condition. Most data on investigational approaches and mortality came from patients presented to the Emergency Department (ED). The aim of this study is to report clinical outcomes of syncope patients admitted to Internal Medicine wards only and how differences in investigational approach to syncope affects short-term mortality
Methods: The study was designed as a retrospective-observational study in a single center comprising nine independent Internal Medicine Departments. The data was collected from electronic medical records (EMRs), from January 2010 through December 2020. We identified 24,021 patients with a diagnosis of syncope using ICD-9-CM codes and only 7,967 patients were admitted to the Internal Medicine Departments. The relationship between the number of used diagnostic testing and relation to the clinical outcomes was assessed by applying logistic regression models.
Results: The short-term 30-day mortality rate was 4.1%. There was a significant difference in the number of diagnostic tests performed per patient between the nine Internal Medicine Departments. Yet, no difference in odds for 30-day mortality was found. Sub-analysis of the data revealed that patients that underwent a diagnostic test for syncope report lower mortality rate compared to patients that did not.
Conclusions: Despite the heterogeneity in the approach to the diagnosis of syncope in Internal Medicine medical wards, the 30-days short-term mortality is not affected. This novel information provides a further prove that syncope patient requires a logistic personalized approach that focuses on medical history and a few tailored diagnostic tests.

 DOI: 10.12890/2022_V9Sup1

562 / #EV0051

DESCRIPTIVE ANALYSIS OF PATIENTS REFERRED TO THE INTERNAL MEDICINE LIPID UNIT

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Background and Aims: Elevation of LDL-c is related with atherogenesis and its reduction decrease the risk of cardiovascular disease which is a very prevalent cause of morbidity and mortality. The assessment of patients at higher risk or difficult to manage in specialized units tries to help improve their adequate control. The goal of this study was to recongnize the characteristics of the patients, identify the most frequent problems they present and decisions made at the first visit.

Methods: A descriptive analysis was carried out during 6 months. Data are collected regarding the baseline characteristics of the patients, the department origin of the referral and the reason for consultation, tests requested, treatment changes and other relevant aspects.

Results: In the 6-month period analyzed 42 patients were referred, 50% were women and the mean age was 50.7 years. The majority, 81%, were sent from Primary Care.The 31% were hypertensive, 7.1% type 2 diabetic, 23.8% obese, 28.6% were overweight, 23.8% were smokers and 54.8% also present hypertriglyceridemia. The 14.3% had suffered a cardiovascular event and 11.9% had subclinical cardiovascular disease.52.4% of the patients were low risk, 9.5% moderate risk, 9.5% high risk, and 28.6% very high risk.The main reasons for referral were 40.5% statin intolerance, 19.1% study of familial hypercholesterolemia, and 14.3% poor control.38.1% reported statin intolerance, the 31% reported myalgia, 19% CK elevation, 16.7% hypertransaminasemia.73.8% had their treatment modified at the visit. Ezetimibe was started in 26.2% and PCSK9 inhibitor in 19%.

Conclusions: Lipid units play an important role in the proper management of patients at high cardiovascular risk.

1721 / #EV0052

ARTERIAL HYPERTENSION AND ATRIAL FIBRILLATION – MOST IMPORTANT MODIFIABLE RISK FACTORS OF STROKE

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Background and Aims: Arterial hypertension (AH) and atrial fibrillation (AF) are very important risk factors of stroke. Stroke is a very frequent cause of morbidity and mortality, and in patients who suffered stroke, subsequent long-term neurological deficit can persist. The aim of our study was to point out the importance of anticoagulant therapy in patients with AF.

Methods: We retrospectively reviewed a group of patients hospitalized during six months period at our Department of Neurology with the diagnosis of stroke confirmed by imaging (CT, CT angiography, brain MRI). This group consisted of 218 patients, 145 men (66.5 %) and 73 women (33.5 %). The average age was 70.8 years.

Results: We detected AH in 199 subjects (91.2 %) and AF in 70 subjects (32.1 %). 182 patients (83.5 %) have been diagnosed with ischemic stroke and 36 patients (16.5 %) with hemorrhagic stroke. In the group of patients with AF only 33 patients (47.1 %) before hospitalization were treated by anticoagulants, what points out an inadequate anticoagulant treatment. It is also noteworthy that in the group of patients with anticoagulant therapy, who have developed ischemic stroke, in 16 cases (48.5 %) the treatment was underdosed.

Conclusions: Arterial hypertension and atrial fibrillation were highly prevalent in our cohort of stroke patients. Despite proven effect of anticoagulant treatment, many patients with AF were not anticoagulated and almost half of those on anticoagulation treatment were underdosed. These results emphasize the importance of effective management of AH and AF, the most common modifiable risk factors of vascular strokes.

1461 / #EV0053

VALIDATION OF THE WEARABLE SEGMENTAL REAL-TIME BIOIMPEDANCE MEASURING DEVICE "VOLUM" FOR ITS APPLICATION IN HF

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Background and Aims: Acute decompensated heart failure (ADHF) represents a major cause of hospital admissions in patients over 65. Admissions for this cause worsen prognosis in chronic heart failure (CHF). Remote monitoring in CHF is challenging. Bioimpedance is useful for diagnosis and follow-up of CHF, although commercial devices do not allow remote monitoring. VOLUM is a wearable device developed in our group that measures real-time spectral

 DOI: 10.12890/2022_V9Sup1

impedance of the leg that could be useful for the follow-up of CHF patients. The aim of this pilot study was to test its technical validity against a non-portable commercial device and to describe the impact of daytime and postural changes on leg bioimpedance.
Methods: Pilot study for the validation of health technologies, controlled and non-randomized. Whole-body and segmental (leg) spectral bioimpedance duplicated and consecutive measures with 4 electrodes with VOLUM and SFB7, (ImpediMed) were conducted twice a day (morning-evening) in three different positions (standing, sitting, and laying) for five consecutive days in four healthy subjects and two patients admitted for ADHF. Epidemiological and clinical information was registered. Local ethics committee approval.
Results: VOLUM was able to reproduce the measures with less than 5% of error and values of the parameters of the Cole-Cole equation showed significant strong correlation between devices. No significant changes in bioimpedance values were attributable to postural changes or daytime.
Conclusions: VOLUM is a valid and precise tool for segmental bioimpedance. Daytime and position do not affect bioimpedance measures. This study sets the starting point for a clinical trial to assess its utility in CHF monitoring.

2265 / #EV0054

CLINICAL-RADIOLOGICAL CORRELATION OF THE PERIPHERAL ARTERY DISEASE OF THE LOWER EXTREMITIES

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Background and Aims: The objective of this study is to analyze the correlation among different cardiovascular risk factors and the anatomical distribution of lesions observed on CT-angiography with three-dimensional reconstruction in patients with peripheral artery disease.
Methods: A restrospective observational study was perfomed in patients with peripheral artery disease who were studied with a CT-angiography during their follow-up from February of 2015 to January of 2020 at the Regional University Hospital of Málaga. A sample of 47 patients was used to determine the relation between the presence of the collected risk factors and the anatomical distribution of the lesions using a test of statistical significance.
Results: We found a tendency towards association between the lesions on the femoropopliteal region and smoking (RR 4.605, 95%-IC 0,965-21,982, p=0.05). We did not find an association among the rest of studied anatomical territories and risk factors.
Conclusions: The majority of patients from the sample were men of a mean age of 72 and tobacco use was the most frequent risk factor. The most frequent location of the lesions was the femoropopliteal region. We found a tendency towards association between the lesions on the femoropopliteal region and smoking. We did not find an association among the rest of studied anatomical territories and risk factors. However, previous publications found a correlation among hyperlipidemia and smoking and the aortoiliac territory and between diabetes mellitus and the distal region. This study demostrates a tendency towards association between the lesions on the femoropopliteal territory and tobacco use in patients with peripheral artery disease.

1258 / #EV0055

RARE CAUSE OF ACUTE CORONARY SYNDROME WITH UNPREDICTABLE EVOLUTION

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Case Description: To date, few cases of acute myocardial ischemia have been described in the evolution of mild forms of CM intoxication. In our clinic, a minor form of CM intoxication was complicated by non-STEMI in an elderly patient, hospitalized following a fire in her own home, with the initial value of carboxyhemoglobin slightly increased (7.9%).
Clinical Hypothesis: The most common etiology of acute coronary syndromes (ACS) is atherosclerosis (90%), 10% of cases having rare causes (cardiovascular, endocrine, infectious, hematological or toxic). Among the toxins that can cause ACS, we mention cocaine or carbon monoxide (CM). CM toxicity is the result of association between tissue hypoxia, ischemia secondary to carboxyhemoglobin formation and direct CM-mediated cell damage. At the same time, CM can induce coronary spasm, intracoronary thrombosis, increases vascular permeability and platelet aggregation. In the evolution of CM intoxication, ACS is a rare complication, with a more severe evolution as high is carboxyhemoglobin concentration.
Diagnostic Pathways: The onset of ACS was 12 hours after admission, with angina pain and resting dyspnea, ECG changes, and increased troponin. Specific treatment was instituted, with a favorable evolution of ACS. Special characteristics of evolution were association of hemorrhagic and infectious complications, the patient being discharged in good condition 3 weeks after admission.
Discussion and Learning Points: This case indicates the possibility of complex and complicated evolution of an initially mild form of carbon monoxide intoxication and the need for close monitoring.

 DOI: 10.12890/2022_V9Sup1

2007 / #EV0056

ASSESSMENT OF MORBIMORTALITY IN PATIENTS WITH AN OLD CARDIOVASCULAR EVENT BASED ON CONTROL OF CARDIOVASCULAR RISK FACTORS.

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Background and Aims: An intensive intervention on cardiovascular risk factors in patients with an old cardiovascular event increases their survival. The aim is to evaluate the long-term impact on survival, total mortality, and cardiovascular morbidity and mortality of an intensive and comprehensive intervention in patients with an old cardiovascular event.
Methods: Retrospective 18-year follow-up study of patients (n=247) included in the MIRVAS study with an old cardiovascular event. The dependent variables were mortality and cardiovascular events and the independent variable was the type of intervention (optimized vs usual follow-up). Survival analysis was performed using the Kaplan-Meier method and Cox regression. Comparison of frequencies of fatal and non-fatal events was performed using the X2 test.
Results: Survival of the intervention group was 32% (p=0.032) higher than that of the control group. Total mortality had no statistically significant differences (p=0.272). 19.1% of the control group died from cardiovascular causes vs. 13.9% of the intervention group (p=0.042); the control group presented with respect to the intervention group greater non-fatal cardiovascular events (p=0.030): 40.5% IHD vs. 37%, 42.9% Ictus/TIA vs. 28.3%, 16.7% multi-event vs. 13%, without statistically significant differences.
Conclusions: Early and comprehensive intervention in patients with cardiovascular event increases their survival and decreases morbimortality due to cardiovascular events.

505 / #EV0057

PACEMAKER-RELATED SUPERIOR VENA CAVA SYNDROME: A CASE REPORT

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Case Description: A 78-year-old man presented to the outpatient clinic with complaints of dizziness, dyspnea, facial and neck swelling. He took rivaroxaban for recurrent pulmonary embolism. In 2018, due to a dilated cardiomyopathy, a pacemaker was implanted. Complaints began in November 2020 and worsened after. Facial oedema was patent at presentation.
Clinical Hypothesis: Superior vena cava syndrome (SVCS).
Diagnostic Pathways: Cardiac and ENT explorations were unremarkable. Thoracic CT with contrast (venous time) showed thrombotic occlusion of the left brachiocephalic vein and the SVC and narrowing of the latter, confirmed by venography. The patient underwent percutaneous balloon angioplasty and stenting. Patency was achieved. He was discharged the next day with a antiaggregant/anticoagulant regimen. After three weeks, complete resolution of symptoms was noted.
Discussion and Learning Points: Etiologies of SVCS evolved during the last century from infections to neoplasms. Device-related SVCS are increasingly reported, and their management is in debate. While surgery may be necessary for certain patient, interventional radiology techniques tend to supplant it. Angioplasty alone with or without stenting can be used. The latter is safe with low complication rates, although lead entrapment can occur. Transvenous lead extraction can solve this problem. Ultimately, one must always consider this rare but dreadful complication in pacemaker wearers presenting with an evocating clinical picture.

124 / #EV0058

IMPLICATION OF FIBROSIS-4 INDEX IN PATIENTS RECEIVING TRANS-CATHETER AORTIC VALVE REPLACEMENT

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Background and Aims: Prognostic implication of fibrosis-3 index, which represents the degree of systemic congestion, on patients receiving trans-catheter aortic valve replacement (TAVR) remains unknown.
Methods: Patients who received TAVR to treat severe aortic stenosis at our institute between 2015 and 2020 were included in this retrospective study and followed for 2 years from the index discharge. Impact of fibrosis-4 index, which was calculated by age, 2 hepatic enzymes, and platelet counts, on the 2-year heart failure readmissions was investigated.
Results: A total of 272 patients (85 [82, 88] years old, 76 men) were included. Baseline fibrosis-4 index was 2.8 (2.2, 3.7) on median. A 2-year cumulative incidence of the primary endpoint was higher in the high fibrosis-4 index group (>3.79) (19% versus 4%, p <0.001). A high fibrosis-4 index was associated with higher cumulative incidence of the primary endpoint (19% versus 4%, p <0.001) and higher event rates (0.1041 versus 0.0222 events/year, p <0.001) with hazard ratio 1.26 adjusted for 5 potential confounders (95% confidence interval 1.07-1.48, p = 0.005).
Conclusions: Baseline elevated fibrosis-4 index, indicating the existence of systemic congestion, was associated with heart failure incidence following TAVR. Implication of peri-procedural aggressive management of systemic congestion remains the next concern.

DOI: 10.12890/2022_V9Sup1

355 / #EV0059

SEX-SPECIFIC IMPACT OF DIFFERENT METABOLIC PHENOTYPES ON CARDIOVASCULAR OUTCOMES POST-ACUTE CORONARY SYNDROME

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Background and Aims: Obesity, a major risk factor for acute coronary syndrome (ACS), is a multifaceted disease with different metabolic phenotypes and sex-specific features. We evaluated the long-term cardiovascular risk by different obesity/metabolic phenotypes and by sex in ACS patients.

Methods: The occurrence of the composite outcome of death, non-fatal re-infarction with or without PCI and/or stroke was evaluated in 674 patients (504 men; 170 women), consecutively hospitalized for ACS and followed-up for 7 years, who were stratified in metabolically healthy (MHNW) and unhealthy normal weight (MUNW), and in metabolically healthy (MHO) and unhealthy obese (MUO) groups.

Results: At baseline, 54.6% of patients were included in the MHNW group, 26.4% in the MUNW, 5.9% in the MHO and 13.1% in the MUO, with no sex-differences in the phenotypes distribution. The overall rate of major outcome (100 person-years) in the reference group (MHNW) was higher in men than in women (RR: 1.19 vs 0.6). The Kaplan-Meier curves for cumulative survival free from cardiovascular events according to obesity/metabolic status diverged significantly according to sex (log rank test, P =0.006), being this effect more prominent in men (log 11.20; P=0.011), than in women (log 7.98; P=0.047). Compared to MHNW, the risk increased in obese men (RR: 2.2; 95% 1.11-1.54 in MUO group), whereas in women the risk was confined to the metabolically unhealthy subjects (RR: 3.2; 95% CI 1.23-9.98, MUNW group).

Conclusions: Our data show a sex-specific impact of obesity phenotypes on long-term cardiovascular risk in patients hospitalized for ACS.

1025 / #EV0060

ULTRA SHORT HEART RATE VARIABILITY IN ACUTE PERICARDITIS

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Background and Aims: Acute pericarditis (AP) may lead to a wide range of outcomes. Heart rate variability (HRV), allows for quantification of the autonomic nervous system activity, which is affected by the inflammatory process. Ultra-short HRV (usHRV) is the measurement of cyclic changes in heart rate, over a period shorter than five minutes. Our aim was to assess usHRV indices for AP risk stratification.

Methods: A retrospective single center study, based on Rambam health care campus database, including all patients diagnosed with AP, between the years 2010-2015. Patients' clinical, laboratory and usHRV parameters were considered including both time-domain [HRV triangular index (HTI)] and frequency-domain [High Frequency (HF), ratio of Low Frequency (LF)/HF]. Logistic Regression (LR) analysis was implemented.

Results: Analysis included 99 patients with the diagnosis of AP (median age 41, 74% men). Multivariate LR for re-hospitalization within 30 days included minimal RR interval as well as HTI<2.8 [Adjusted Odds Ratio (AOR) 0.041, 4.128; p-value 0.042, 0.039; respectively, with an Area-Under-Curve (AUC) of 0.831]. Multivariate LR analysis for pericardiocentesis included HF (AOR 0.988; p-value 0.019; AUC 0.830). HF and the LFHF ratio were incorporated in a multivariate LR model for development of heart failure or exacerbation of known heart failure (AOR 5.833e-32, 2.300e-30; p-value 0.024, 0.029; respectively; AUC 0.966).

Conclusions: In this study, we have demonstrated for the first time, the use of usHRV for AP early risk stratification. Validation of our findings is required.

1573 / #EV0061

FEATURES OF THE DEVELOPMENT OF FATAL AND NON-FATAL VASCULAR EVENTS IN PATIENTS WITH MULTIFOCAL ATHEROSCLEROSIS

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Background and Aims: To assess the features of the development of fatal and non-fatal vascular events in patients with multifocal atherosclerosis in the long-term period.

 DOI: 10.12890/2022_V9Sup1

Methods: The study included 519 patients who underwent standard biochemical studies and a set of instrumental studies, including angiographic examination of the coronary, carotid, renal arteries and arteries of the lower extremities. The second stage of the work included prospective follow-up for three years with endpoint assessment.
Results: Atherosclerotic lesion of one vascular pool was found in 258 patients (49.5%), lesion of two vascular pools was diagnosed in 170 patients (32.8%), three in 85 (16.5%), four - 6 patients (1, 2%).In the course of the study, we carried out a logistic regression analysis of the effect of the number of vascular lesions on the endpoints of the study.As the number of affected vascular pools increases, the likelihood of developing fatal and non-fatal cases of myocardial infarction (p<0,001) and fatal cases of heart failure increases (p<0,044).
Conclusions: In the course of the work, the impact of the pathological process on the possible prognostic risk was assessed. A logistic regression analysis was performed in relation to the possible development of a cardiovascular or other event depending on the number of affected vascular pools.

1861 / #EV0062

CRP AS A MARKER OF SYSTEMIC INFLAMMATION IN CORONARY ATHEROSCLEROSIS ASSOCIATED WITH VIRAL LOAD

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Background and Aims: Cardiovascular diseases are currently the leading cause of death in industrialized countries. There is a large list of infections that are either associated with the development of atherosclerosis, or increase the risk of developing cardiovascular diseases. Much attention in this list is paid to human herpes viruses. High-sensitivity C-reactive protein (hsCRP), a marker of systemic inflammation, is actively studied in patients with coronary atherosclerosis. The aim of the study was to study the relationship between the prevalence of herpesvirus infection in patients with varying degrees of severity of coronary atherosclerosis and the level of hsCRP.
Methods: All patients underwent clinical examination, coronary angiography with calculation of the Gensini index. The presence of herpes viruses (types 1, 2, 4, 5 ,6) was determined by PCR with real-time detection, the level of hsCRP was determined by the ELISA method.
Results: HSV type 6 is more common among patients with significant coronary atherosclerosis and mixed herpesvirus infection is detected. The levels of hsCRP and viral load increased with increasing severity of coronary atherosclerosis, while significant differences in the level of hsCRP were revealed among patients with varying degrees of severity of atherosclerosis (p=0.00168). The correlation analysis revealed a significant direct correlation between the viral load and the level of hsCRP (r=0.631, p=0.00016). Correlation analysis also established a direct relationship between the presence of HSV-6 and the Gensini index (r=0,496, p=0.0002).
Conclusions: The viral load and the increase of hsCRP determine the multifactorial nature of systemic inflammation. Systemic inflammation, in turn, determines the progression of atherosclerotic changes in the coronary vessels.

156 / #EV0063

BROKEN HEART SYNDROME

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Case Description: A 77-year-old woman with a history of arterial hypertension and major depression attended to the Emergency Department (ED) due to sudden onset of chest pain radiating to the left arm, nonspecific malaise and generalized tremor after a family discussion. On admission, the patient was hemodynamically stable with normal auscultation.
Clinical Hypothesis: Nontraumatic chest pain is one of the most common causes of emergency department visits. The differential diagnosis is broad and includes cardiac, gastrointestinal, pulmonary, musculoskeletal and psychiatric etiologies. Any life-threatening cause, such as acute coronary syndrome should be immediately evaluated and assessed.
Diagnostic Pathways: Blood sample showed elevated troponin I and electrocardiogram revealed pathological Q waves in leads V3 to V6. A transthoracic echocardiogram was performed, which showed left ventricular hypertrophy with changes in segmental kinetics. Assuming acute myocardial infarction without ST-segment elevation, dual antiaggregation and anticoagulation was initiated. Patient underwent coronary angiography that showed no obstructive lesions and ventriculography revealed akinesia and apical ballooning of the LV, typical of Takotsubo.
Discussion and Learning Points: Takotsubo cardiomyopathy refers to acute and reversible left ventricular (LV) dysfunction induced by physical or emotional stress. It is an unusual situation, but a significant cause of chest pain that can mimic an acute coronary syndrome (ACS). It is typically characterized by ballooning of the LV wall and unaltered coronary angiography. Supportive care leads to spontaneous recovery in most patients, with a recurrence rate <10%.

 DOI: 10.12890/2022_V9Sup1

1956 / #EV0064

SOME GENETIC PREDICTORS OF LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN HYPERTENSIVE PATIENTS

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Background and Aims: To identify genetic predictors of left ventricular (LV) diastolic dysfunction in hypertensive patients.

Methods: 54 hypertensive patients were included (mean age 42 ± 9.4 years). LV diastolic function was assessed in accordance to the AOE/EAC recommendations (2016). The subjects were divided into 2 groups: with normal LV diastole (23 patients, 43%) and with LV diastolic dysfunction (31 patients, 57%). The control group consisted of 35 healthy people (average age 38 ± 5.4 years) without cardiovascular disease. The study of gene polymorphism was carried out using polymerase chain reaction method. Statistical methods such as Cruskell-Walles criteria and χ2 test were used.

Results: In patients with LV DD TT genotype of the AGT T704C gene was found 12% more often than in the group of patients without diastole disorders (p=0.06); TC genotype of the AGT C521T gene was found to be 31% more frequent (p=0.007). An increase in the frequency of occurrence of the C allele of the AGTR1 A1166C gene was detected in the group of patients with impaired LV diastolic filling compared with those patients in whom LVDD was not detected (χ2=16.53; p=0.0003, OR 28.39). There was no association of individual ACE gene alleles (Alu Ins/Del I > D) in groups of patients with hypertension.

Conclusions: The relationship between the presence of LV DD and the features of the genotype in hypertensive patients was revealed. The data obtained can be used in predicting of a hypertensive heart formation in this category of patients.

1017 / #EV0065

THE RARE CASE OF ISOLATED CARDIAC AMYLOIDOSIS

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Case Description: A 50-years old patient without any previous diseases, without any significant risk factors, presented at emergency with progressive exertional dyspnoe lasting about one month. On physical examination bilateral crackles have been found. ECG showed sinus rhythm with decreased voltage. Echocardiography revealed severe restrictive cardiomyopathy with mild pericardial effusion.

Clinical Hypothesis: What can be the cause of restrictive cardiomyopathy in younger healthy woman?

Diagnostic Pathways: MRI of the heart showed possible infiltrative prcess in myocardium of both ventricles that was suspicious from amyloidosis. In the differential diagnosis of amyloidosis, the electrophoresis of serum and urinary proteins was performed, that was normal, only immunoixation of serum proteins confirmed a discrete monoclonal gradient. Mild elevation of lamda free light chains has been found. Bone marrow biopsy did not show any pathology. Technecium scintigraphy of the heart showed intermediate accumulation of isotope in the heart that is rather typical for transtyrethin type of amyloidosis. Sequenation of transtyerthin gene did not revealed any mutations. Abdominal fat biopsy was negative in congo red staining, and no other organs seemed to be afftected, therefore endomyocardial biopsy has been performed. The AL lambda amyloidosis was confirmed by immunohistochemical analysis.

Discussion and Learning Points: This case presents a patient with rare primary AL amyloidosis caused by del13q with isolated affection of heart. Mild elevation of lambda FLC can lead to clinically severe organ involvement. Technetium scintigraphy showed accumulation of isotope in heart that is unusual in AL amyloidosis. Patient received eight cycles of bortezomib+dexamethasone therapy and currently is in very good partial remission, without any progression.

1016 / #EV0066

TRIGGER BECOMING EVER MORE COMMON AS A CARDIAC STRESSOR

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Case Description: An 85-year-old woman with hypertension, obesity and sclero-hypertensive heart disease with preserved LVEF was admitted for cough and non-purulent expectoration, increased baseline dyspnoea, orthopnoea with intolerance to decubitus and PND crisis. She had been vaccinated against influenza and had recently been admitted for neuromediated syncope. On examination she presented tachypnoea with oxygen desaturation despite oxygen therapy in a reservoir and bilateral crackles on auscultation. An ECG was performed, showing diffuse ST-segment elevation and troponin T elevation up to 773 ng/L in the first measurement.

Clinical Hypothesis: We first considered the diagnosis of STEMI Killip III, with a concomitant respiratory infection that may have played a role as a triggering cause.

Diagnostic Pathways: Urgent coronariography was performed, without angiographically significant lesions, but with ventriculography compatible with Takotsubo syndrome. A transthoracic echocardiogram showed hypercontractility of basal segments with apical akinesia. In addition, positive PCR for influenza A virus requested due to compatible clinical manifestations, the cardiological picture and the epidemiological situation. Thus, she was diagnosed with stress cardiomyopathy with nosocomial influenza A as a precipitant.

Discussion and Learning Points: Stress cardiomyopathy is a

 DOI: 10.12890/2022_V9Sup1

syndrome characterised by transient regional systolic dysfunction of the left ventricle in the absence of obstructive angiographic lesions in the coronary arteries. It occurs in 1-2% of patients presenting with troponin elevation with suspected acute coronary syndrome, mainly in postmenopausal women.

121 / #EV0067

AN INNOCENT PAIN IN THE ARM?

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Case Description: 47-year-old man, previous smoker. He played high intensity sports like weightlifting and triathlon. He went to the emergency department of our hospital due to intense pain, paresthesia and coldness of the right upper limb while running, self-limited diplopia of the right eye with associated dizziness. He denied jaw claudication, asthenia, weight loss, or hyporexia. Physical examination revealed pain in the right upper limb and a weaker right radial pulse compared to the contralateral one. Blood pressure in the left upper limb was 152/89 mmHg and 135/86 mmHg in the right upper limb.
Clinical Hypothesis: A decrease in wrist-arm ratios and digital pressure suggests distal thrombosis or embolization.
Diagnostic Pathways: An urgent doppler ultrasound was performed, revealing a thrombus occupying the lumen of the right axillary artery in its most distal segment, measuring approximately 2 cm, extending towards a fine posterior branch. A patent artery was observed proximally and scant flow distally with postobstructive doppler morphology. Given worsening with pallor and coldness with absence of distal pulses, he was referred for right transhumeral thrombectomy, which was successful. Routine analysis was performed that included proteinogram, study of autoimmunity, homocysteine, study of hypercoagulability, body-CT, transthoracic echocardiography with bubbles, Holter 24 hours and eye-fundus, all of them normal. It was initially maintained with enoxaparin, later acenocoumarol, subsequently maintaining antiaggregation, indicating caution with high-load physical activity on the affected limb.
Discussion and Learning Points: Repetitive compression can cause focal intimal stenosis and hyperplasia, aneurysm formation, thrombosis, or segmental dissection. This form of occlusion is a variant of the arterial thoracic outlet syndrome.

2277 / #EV0068

UNDER PRESSURE

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Case Description: A 71-year-old man with dyslipidemia, COPD, moderate aortic regurgitation, chronic kidney disease, peripheral artery disease, surgically treated abdominal aortic aneurysm and venous thromboembolism, is admitted to the hospital with a hypertensive emergency (BP 232/115 mmHg) with dyspnea and acute kidney injury (AKI) as signs of target organ failure. Abdominal ultrasound discards obstructive AKI and shows right kidney atrophy, not present two years before. During admission he presents an acute ischemic stroke during another hypertensive emergency. Hypertension persists despite concomitant use of four anti-hypertensive drugs, with two episodes of symptomatic hypotension after ACE inhibitor administration.
Clinical Hypothesis: Renovascular hypertension.
Diagnostic Pathways: He presents hyperreninemia with normal aldosterone levels. Ultrasound findings lead to the performance of an isotope renogram, which shows no right kidney function. Renal echo-doppler discards signs of significant renal artery stenosis. CT-angiography, however, reveals severe right renal artery stenosis with secondary ischemia, and non-significant left renal artery stenosis. He is diagnosed with renin-dependent renovascular hypertension, with right kidney ischemia due to atherosclerotic renal artery stenosis.
Discussion and Learning Points: Renovascular hypertension represents 1-10% cases of hypertension. Late onset, acute pulmonary edema or AKI after ACE inhibitors administration, renal asymmetry or peripheric artery disease suggest this diagnosis. Gold standard for diagnosis is arteriography, although doppler-ultrasound or CT-angiography are commonly used[1].

[1]Rooke TW et al; 2011 ACCF/AHA Focused Update of the Guideline for the Management of Patients With Peripheral Artery Disease (updating the 2005 guideline): a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol. 2011 Nov 1;58(19):2020-45.

1350 / #EV0069

NON - (RE)INTRODUCTION OR SUSPENSION OF PROGNOSTIC MODIFYING DRUGS IN HF WITH REDUCED FUNCTION

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Background and Aims: Heart failure with reduced fraction (HFrEF) has pharmacological strategies that allowed better outcomes for patients. However, the introduction of prognostic modifying drugs (PMD) or the increase to a maximum dose is limited due to adverse

 DOI: 10.12890/2022_V9Sup1

effects, comorbidities and due to therapeutic inertia.
Methods: Retrospective analysis of patients with HFrEF admitted to hospitalization of the etiology of HF, comorbidities, admission's criteria, PMD's previous use, adverse drug effects and prognosis of HF.
Results: We evaluated 130 patients with a diagnosis of HF-rEF. Among ACE inhibitors and angiotensin 2 receptor antagonists (ARA), 65.3% of patients (n:85) were under these drugs,15.2% of these (n:13) the drug was introduced in 2019 and in 32.9% (n:28) was prescribed at maximum dose. Thirty patients (23%) were identified in ACEi/ARA withdrawal. As for beta-blockers, 81.5% of patients (n:106) had this class prescribed, suspended in 9.2% of patients (n:22). As for the most recent PMDs, 17.7% of the patients were on sacubitril/valsartan (n:23) with 86.9% starting at 2019. It was suspended in 2 cases due to hypotension, 1 due to hyperkalaemia, 1 due to renal dysfunction, 1 due to economic insufficiency and in 2 cases unknown. Under inhibitors of sodium-glucose transporter type 2 (iSGLT2) there were 17 patients (13.1%), with no withdrawals. In the cases which drugs were discontinued, they were not reintroduced.
Conclusions: The impact of PMDs on HF-rEF should lead to reflect on the reasons for discontinuation. The suspension of a drug should prompt the management of adverse effects, so it can be reintroduced as soon as possible. Therapeutic inertia should be avoided.

1180 / #EV0070

ACUTE CONGESTIVE HEART FAILURE DUE TO AORTIC VALVULAR DEHISCENCE

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Case Description: A 56-year-old male presented with acute onset of dyspnea on exertion. He denied chest pain, syncope, orthostasis, fevers, and chills. The patient has a history of IV drug use leading to MSSA bacteremia with aortic valve and aortic root endocarditis treated with aortic valve replacement and aortic graft repair. His post-operative course was complicated by VRE bacteremia. Physical exam was notable for hypoxia requiring 2L NC, tachycardia, bilateral lower extremity pitting edema, bibasilar alveolar rales, jugular venous distension, and single S2 on cardiac auscultation.
Clinical Hypothesis: The differential for this patient's heart failure exacerbation was broad. At the time of examination, a primary valvular abnormality was not immediately obivous.
Diagnostic Pathways: Laboratory studies demonstrated elevated brain natriuretic peptide, normal troponin, leukocytosis, elevated ESR, CRP, and VRE positive blood cultures. Broad spectrum antibiotics and IV furosemide were initiated. Transthoracic echocardiogram showed acute aortic valvular dehiscence. Cardiology, cardiothoracic surgery, and infectious disease were consulted, and a transesophageal echo, PET/CT scan, and tagged WBC scan were pursued. Antibiosis was narrowed to daptomycin and a standing oral furosemide regimen was started while the patient awaited surgical intervention.
Discussion and Learning Points: This case demonstrates an unusual etiology of heart failure, a common hospital diagnosis. Initial management of a patient with cardiogenic pulmonary edema is centered around intravenous diuretic therapy. The learning point here is the importance of determining heart failure exacerbation etiology in a timely manner with appropriate history collection and diagnostic workup. This patient's dehiscence of the prosthetic aortic valve was likely related to recurrent VRE bacteremia with a peri-aortic graft abscess source.

90 / #EV0071

SEPTIC EMBOLIZATION IN LEFT-HEART ENDOCARDITIS: A CATASTROPHIC EXAMPLE

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Case Description: A 77 year-old male with a past history of stage IV Hodgkin lymphoma was admitted for community-acquired pneumonia and neutropenic fever. Admission was complicated by septic shock leading to transfer to an intensive care unit and initiation of renal replacement therapy, orotracheal intubation, mechanical ventilation and vasopressor support. Due to sustained fever and a *Streptococcus gallolyticus* bacteremia, a diagnosis of infectious endocarditis diagnosis was considered. Patient underwent transoesophageal echocardiogram showing two aortic valve vegetations. Contrast-enhanced computed tomography revealed multiple cerebral embolic infarctions, as well as renal and splenic infarcts and peripheral upper limb embolism. Due to multiorgan failure he was unsuitable for aortic valve surgery. Patient progressed with refractory shock culminating in death.
Clinical Hypothesis: Aortic valve endocarditis with septic shock and multi-territory septic embolization in an immunocompromised patient.
Diagnostic Pathways: Sustained *Streptococcus gallolyticus* bacteremia and transoesophageal echocardiogram revealing large aortic valve vegetations confirmed aortic valve endocarditis. Craneal and abdominopelvic computed tomography revealed multi-territory septic embolization.
Discussion and Learning Points: Infectious endocarditis can lead to a high morbidity and mortality in affected patients. This case illustrates a devastating example of multi-territory septic embolism only identified through imaging techniques, serving as a call-to-action for all clinicians: always assess for silent complications in patients diagnosed with endocarditis.

 DOI: 10.12890/2022_V9Sup1

91 / #EV0072

LIFE-THREATENING WUNDERLICH SYNDROME ASSOCIATED WITH APIXABAN: A CASE REPORT

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Case Description: A 79-year-old female with atrial fibrillation under apixaban was admitted due to sudden left flank pain, obnubilation and hypotension. Blood tests revealed a hemoglobin of 6.4 g/dL, creatinine of 3.31 mg/dL and a severe mixed acidemia (pH of 6.9). Thus, a diagnosis of hemorrhagic shock was assumed. Apixaban was suspended and patient was transferred to an intensive care unit. Computed tomography (CT) revealed an upper left renal rupture with extensive perirenal hemorrhage. Thus, a diagnosis of WS was made. Due to hemodynamic stability after blood transfusion, she was managed conservatively with bed rest and anticoagulation suspension. At day seven of admission she developed new-onset left arm paresis. CT scan confirmed multiple 'de novo' cerebral embolic infarctions. Given the recent major bleeding the patient was deemed unsuitable for anticoagulation resumption and a single antiplatelet strategy with aspirin was initiated. Finally, at day 47 of admission, after excluding new bleeding events and after re-initiating anticoagulation with apixaban, she was discharged to a physical-rehabilitation facility with ongoing improvement of neurological deficits and normal renal function.
Clinical Hypothesis: Wunderlich syndrome (spontaneous renal rupture) associated with direct oral anticoagulation.
Diagnostic Pathways: Anticoagulated patient presenting with haemorragic shock and abdominal pain. Abdominal computed tomography revealed left renal rupture with perirenal haemorrage, confirming Wunderlich syndrome diagnosis.
Discussion and Learning Points: This is the first-ever report of WS associated with apixaban. A high-suspicion index must be maintained in patients presenting with flank pain and features of haemorrhagic shock, especially in those under anticoagulants. Management of patients with active bleeding while on DOAC is complex, particularly when simultaneous thromboembolic events occur.

237 / #EV0073

38-YEAR-OLD PATIENT WITH A BILATERAL CORNEAL ARCH

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Case Description: A 38-year-old patient referred for hypercholesterolemia of years of evolution. Among your family history: Brother with early ischemic disease at age 37. 76-year-old mother with hypercholesterolemia. He is currently living and has not had cardiovascular events. Nephew with hypercholesterolemia, under follow-up by the high cardiovascular risk unit. Two children without analytics; He was ex-smoker since April 2021; hypercholesterolemia (untreated). No known hypertension or diabetes mellitus.
Clinical Hypothesis: Reviewing their previous analytics (maximum LDL-C in its history at 259 in 2017), one of our main diagnostic suspicions was familial hypercholesterolemia (FH).
Diagnostic Pathways: On examination, the patient had a bilateral corneal arch. No xanthomas or xanthelasmas were found. In laboratory tests: Total cholesterol 302 mg/dL; HDL cholesterol 36.7 mg/dL; LDL cholesterol 226 mg/dL; Triglycerides 195 mg/dL; he was classified as patients with FH thanks to the criteria of the Dutch Lipid Clinic Network for the diagnosis of FH (8 points). A genetic study was requested and treatment with rosuvastatin 20 mg / ezetimibe 10 mg 1 tablet a day was started, to achieve an LDLc goal: <70 mg/dL, as a high cardiovascular risk patient.
Discussion and Learning Points: HF is the most common monogenic disorder of premature atherosclerotic cardiovascular disease causing an average risk of ASCVD 3-13 times greater than the general population due to exposure to high cholesterol levels from birth. The early identification and treatment of these patients and their families is key to preventing cardiovascular events and improving their quality of life.

 DOI: 10.12890/2022_V9Sup1

1753 / #EV0074

TESTOSTERONE DEFICIENCY INDEPENDENTLY PREDICTS ALL-CAUSE MORTALITY IN WOMEN WITH HEART FAILURE AND REDUCED EJECTION FRACTION: INSIGHTS FROM THE T.O.S.CA. REGISTRY

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Background and Aims: Testosterone Deficiency (TD) is associated with increased morbidity and mortality in Heart Failure with reduced ejection fraction (HFrEF). However, data in women are scanty. Aim of this study was to investigate the clinical impact of Testosterone Deficiency (TD) on women affected by HFrEF.
Methods: Women prospectively enrolled in the T.O.S.CA. (Terapia Ormonale Scompenso CArdiaco) Registry, a prospective, multicentre, observational study involving 19 Italian centres were included in this analysis. Patients were divided according to the presence of TD (TD+), which was defined as serum testosterone levels lower than 25 ng/dL. Data regarding clinical status, echocardiography, exercise performance, cardiovascular hospitalization and survival were analysed.
Results: Thirty patients (31,9%) displayed TD. TD was associated with lower level of tricuspid annular plane excursion (TAPSE) to pulmonary arterial systolic pressure PASP ratio (TAPSE/PASP) (p:0.008), peak oxygen consumption (VO2 peak) (p:0.03) and lower values of estimated glomerular filtration rate (p:0.0001). TD resulted an independent predictor of the combined endpoint of all-cause mortality/cardiovascular hospitalization (HR:10,27; 5-95% CI:3,18-16,81; p: 0,001) and also of separate components of the endpoint (HR:8,17; 5-95%: 5,14-15,81; p:0,04 for all-cause mortality and HR:2,23; 5-95% CI:1,11-4,48; p:0.02 for cardiovascular hospitalization).
Conclusions: Testosterone Deficiency impacts remarkably on morbidity and mortality of women with HFrEF. Moreover, TD is associated with worse exercise capacity, right ventricular-pulmonary arterial coupling and renal function. These results prompt attention on the possibility of a replacement therapy in this subset of patients.

77 / #EV0075

TELEPHONE CONSULTATION IN HEART FAILURE DURING THE SARS-COV2 PANDEMIC

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Background and Aims: The restrictions taken to stop the SARS-CoV-2 pandemic have made it necessary to rethink the way in which patients with heart failure (HF) are monitored, for example by telephone consultation. The aim of this study is to describe a group of patients who received medical care this way.
Methods: It is a retrospective observational study of 71 patients under follow-up in HF consultations at the Hospital Clínico San Carlos during the period from May to December 2020. Patients were followed up by telephone consultation. We performed a descriptive study of baseline (NYHA, LVEF, BMI, glomerular filtration rate (GFR)), clinical, therapeutic and prognostic variables.
Results: The mean age was 87 years and 77.5% were women. The sample had a mean NYHA score of 2.11; LVEF of 57%; BMI of 28.2 kg/m^2; and GFR of 47.1 ml/min/1.73 m^2. During follow-up, 36.2% reported dyspnea, 11.6% orthopnea, 4.3% paroxysmal nocturnal dyspnea, 24.6% weight gain, and 18.8% lower limb edema. On the other hand, 42.8% required changes in diuretic treatment, 12.9% required changes in beta blocker treatment, 5.8% went to the emergency room; 10% were admitted for HF and 10% died for the same reason.

 DOI: 10.12890/2022_V9Sup1

Conclusions: Most of the patients did not present ventricular dysfunction, malnutrition or advanced chronic kidney disease. Nevertheless, many of them required medication adjustment, especially diuretic treatment, either due to weight gain or worsening of symptoms. However, it should be noted that there was no considerable increase in the number of hospitalizations or mortality due to HF.

1028 / #EV0076

RIGHT HEART CHANGES DEPENDING ON THE FUNCTIONAL STATUS OF PATIENTS WITH CARDIORESPIRATORY PATHOLOGY

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Background and Aims: The right heart (RH) is not as well understood as the left heart. Early identification of the patients with RH overload will allow to carry out primary prevention of heart failure and improve the quality of life in these patients. Purpose: to compare RH echocardiographic (Echo) data with the functional status data of patients with cardiorespiratory pathology - dyspnea, oxygen saturation (SpO2) before and after the 6-min walk test (6MWT), and the distance walked in 6MWT (6MWTD).

Methods: 69 hypertension (HT) stage II patients with chronic obstructive pulmonary disease (GOLD 2, group B) in remission 55.80±5.51 y.o. were monitored. Patients underwent the 6MWT, pulse oximetry, spirometry, chest X-ray and echocardiography.

Results: Correlation analysis demonstrated an inverse correlation between the 6MWTD and right atrial (RA) size ($r=-0.33$; $p<0.05$), right ventricle (RV) wall thickness ($r=-0.25$; $p<0.05$); a direct correlation – between desaturation and RA size ($r=0.27$; $p<0.05$), RV wall thickness ($r=0.33$; $p<0.05$). Dyspnea level didn't show significant correlations with Echo data. To establish the prognostic significance of desaturation on forming RH overload features we divided patients into groups: 1st -with desaturation, 2nd - without. 1st group showed significant ($p<0.05$) changes in RH chambers, indicating an increase in their overload – increasing the RA size (39.79±2.27 mm vs. 35.83±5.02 mm) and RV wall thickness (5.58±0.57 mm vs. 5.22±0.61 mm), decreasing RV diameter (27.10±2.22 mm vs. 28.37±2.40 mm). Desaturation was associated with RV pressure overload.

Conclusions: Desaturation and reduced exercise tolerance were associated with early Echo data of the RH overload, as opposed to dyspnea level.

1365 / #EV0077

THE PUERPERIUM: THE ROLE OF INTERNAL MEDICINE AS CORNERSTONE IN THE DIAGNOSIS OF PULMONARY EMBOLISM

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Case Description: Female, 37 years old. Past medical history of obesity, hypertension, c-section 4 weeks prior to the admission, and diabetes mellitus.

Patient was directed to the emergency department from the obstetric clinic, to be assessed by internal medicine department. She presented with 2 week symptoms of tiredness, associated with breathing difficulties and fever, despite being treated with amoxicillin and clavulanic acid for a week.

From the objective assessment to the admission presented: conscious and orientated. Apyretic, normotensive, synus rythm, respiratory rate 22 bpm, peripheral oxygen saturation 95%, cardiac and pulmonar auscultation normal, no edema or symptoms of DVT noted to lower limbs.

Clinical Hypothesis: Pneumonia, puerperial fever, pulmonary thromboembolism and heart failure.

Diagnostic Pathways: Initial tests: blood tests, arterial blood gas (ABG) and thoracic x-ray. On the ABG results – alveolar arterial gradient increase was noted, and in association with the patient´s X-Ray and past medical history, a thoracic angio CT scan and D-dimer were requested.

D-dimer result was 6.2 mg/L and thoracic angio CT scan showed bilateral PE. Further studies identified protein S deficit.

Discussion and Learning Points: Pulmonary thromboembolism is a rare disease in puerperium and it´s incidence and prevalence in Portugal is not precise.

This case shows that risk factors (puerperium, recent surgery and obesity) combined with a prothrombotic status (protein S deficit) favour the development of pulmonar thromboembolism.

Internal medicine is a holistic and vast medical specialty, and its importance in pregnancy and puerperal pathologies is demonstrated in this case.

2005 / #EV0078

DILATED CARDIOMYOPATHY AS A TRANSITORY CONDITION

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Case Description: A 34-years-old man, with history of arterial hypertension (non-medicated), was admitted with lower limb edema and dyspnea for 3 days, with progressive worsening. He also had cough that started 10 days before. At physical examination stood out: auscultation suggestive of rhythmic tachycardia and pulmonary stasis, as well as peripheric edema up to the

 DOI: 10.12890/2022_V9Sup1

abdominal wall. Analytically: elevated inflammatory parameters, a cytocholestasis pattern and elevated NT-proBNP. Radiologically: increased cardiothoracic ratio and signs of pulmonary congestion.
Clinical Hypothesis: *"de novo"* heart failure (HF), myocarditis hepatitis
Diagnostic Pathways: Transthoracic echocardiogram (TTE): biventricular dilatation with reduced ejection fraction; cardiac magnetic resonance: dilated cardiomyopathy (DCM) with serious commitment of systolic function. Analytical study: elevated troponin I; positive test for immunoglobin M antibody against HSV (late result).
Discussion and Learning Points: DCM can have an inflammatory etiology, with viral infection being the most common cause. However, Herpes simplex virus (HSV) was rarely associated to this entity. Considering the diagnostic exams results, we assumed a DCM and hepatitis secondary to HSV infection. Medical treatment was started for HF and colchicine for suspected viral myocarditis. A marked improvement was seen on the symptoms of HF, cytocholestasis and reduction of troponin. Considering this improvement, myocardial biopsy nor antiviral therapy was performed. On the follow-up outpatient appointments, patient presented progressive improvement and after 1 year was on NYHA I class. NT-proBNP and hepatic function normalized and a reassessment TTE revealed recovery of systolic function. In conclusion, we emphasize the importance of etiology clarification towards a *"de novo"* HF, specially in young patients, since it can be reversible.

2103 / #EV0079

INFECTIVE ENDOCARDITIS WITH PSEUDOANEURYSM OF THE LEFT VENTRICLE OUTFLOW TRACT

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Case Description: We present the case of a 65-year-old man with a nine months history of aortic biologic valve replacement presented with fever. The physical exam only showed a non-tender, small erythematous macular lesion on third finger of the right hand and poor oral hygiene.
Clinical Hypothesis: We consider the clinical hypothesis of early-onset prosthetic valve endocarditis.
Diagnostic Pathways: Blood cultures identified coagulase-negative staphylococci (CoNS). A transesophageal echocardiogram documented a posteromedial prothesis insertion abscess, a giant pseudoaneurysm of the left ventricle outflow tract and filiform vegetations appended to the pseudoaneurysm and the prothesis. He was found to have early-onset prosthetic valve endocarditis complicated with a pseudoaneurysm of the left ventricle outflow tract and septic emboli, with massive splenic infarction. Antimicrobials were started and an urgent surgical valve intervention was considered but unfortunately patient rapidly evolved to cardiogenic shock and died.
Discussion and Learning Points: Infectious endocarditis has a significant in-hospital mortality despite advances in medical and surgical treatment. Due to patient- and procedure-related changes, CoNS now represent one of the major nosocomial pathogens. Pseudoaneurysm of the left ventricle outflow tract is a rare but lethal complication. It originates from non-transmural myocardial rupture, and usually occurs after acute myocardial infarction (the main cause), thoracic trauma, cardiac surgery, infectious endocarditis, and may also present as congenital heart disease. Survival is reduced if correction surgery is not performed.

310 / #EV0080

NON ALCOHOLIC FATTY LIVER DISEASE AND SUBCLINICAL ATHEROSCLEROSIS IN A POPULATION WITH FAMILIAL HYPERCHOLESTEROLEMIA

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Background and Aims: There are no data on the association between non-alcoholic fatty liver disease (NAFLD) and subclinical atherosclerosis in people affected by familial hypercholesterolemia (FH). This study wants to investigate the predictors of NAFLD in HeFH, evaluate its impact on subclinical atherosclerosis, describe and characterize it.
Methods: A total of 169 consecutive asymptomatic young individuals affected by genetically defined heterozygous FH (HeFH) with no prior history of cardiovascular disease, diabetes or secondary steatosis were enrolled and underwent carotid/femoral ultrasonography, cardiac computed tomography (CT), PWV. NAFLD was assessed by CT, defined as liver/spleen density ratio <1 or liver density <40 HU. Carotid, femoral and coronary atherosclerotic burden were assessed through Doppler ultrasound and calcium score. Arterial stiffness was evaluated through SpygmoCor® pulse wave analysis and velocity.
Results: Of the study participants 22 (12,4%) had CT-diagnosed NAFLD. Individuals with NAFLD exhibited a significant increase in CAC score (p=0.011). After adjustment for cardiovascular risk factors, CRP and type of mutation, HeFH subjects with NAFLD had a higher risk of presenting a CAC score >100 (OR 8.45 [95% CI 1.75–40.8]; p=0.006) . ApoB mutation was another independent predictor of NAFLD in this population (5.99; 95% CI 1.44-25.04; p= 0.0014). No difference were found for carotid intima-media

 DOI: 10.12890/2022_V9Sup1

thickness (p=0,91), carotid plaque (p=0,35), and PWV (p=0,34).
Conclusions: NAFLD constituted an aggravating marker of cardiovascular risk in asymptomatic FH. Genotype-phenotype interaction could be a driver for this metabolic overrisk. Further studies are needed to confirm the impact of NAFLD in cardiovascular outcomes in asymptomatic HeFH.

1133 / #EV0081

RECURRENT SYNCOPE AND AUTONOMIC FAILURE: INTO THE DEPTHS OF DIAGNOSIS

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Case Description: A 79-year-old man presented with a gastrointestinal syndrome, severe dehydration, and pre-syncopal symptoms. He reported a 2-year history of recurrent syncope with serious traumatic outcomes and decline in quality of life (QoL). Despite bicameral pacemaker (PM) was implanted for sick sinus syndrome, no medical intervention was able to prevent syncopal episodes. Vital signs were normal in clinostatism.
Clinical Hypothesis: Arrhythmia was initially excluded via ECG monitoring and PM interrogation, and trans-thoracic echocardiography was normal; euvolemia was restored and confounding medications were interrupted. However, non-triggered presyncopal symptoms persisted. Orthostatic challenge revealed a severe drop in BP with inadequate increase in HR, thus raising the suspect of neurogenic orthostatic hypotension (nOH) due to autonomic failure.
Diagnostic Pathways: Results from head-up TTT and 24-hour ABPM supported the diagnosis. Primary neurodegenerative causes of dysautonomia were excluded by an expert neurologist, then the most prevalent secondary causes were ruled out (diabetes, uremia, alcohol), followed by rarer causes (e.g. autoimmune disorders, infections, and others). The final diagnosis of systemic amyloidosis was made through histology of subcutaneous fat biopsy, and hereditary deposition of transthyretin was the most likely pathological mechanism, based on the peculiar presentation and the absence of plasmacellular or inflammatory copathologies.
Discussion and Learning Points: NOH due to dysautonomia is a relevant cause of recurrent syncope in the elderly that is still highly underdiagnosed. Identification is important, as it can be the key clinical sign of an underlying systemic disease, such as amyloidosis, and a correct diagnosis might allow more access to innovative treatment regimens, which can significantly improve prognosis and QoL.

1699 / #EV0082

CARDIOMYOPATHIES DUE TO MUTATIONS IN FILAMIN-C: A CASE REPORT OF 16 PATIENTS IN SPAIN

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Background and Aims: Mutations have been described in more than 170 genes associated with different myocardial diseases. Classically, the mutation of each gene has been linked to a specific cardiomyopathy. Moving away from this typicality, in 2014, filamin-C (FLNc) was discovered as a causal agent of cardiomyopathy, observing that their mutations are capable of causing different phenotypes.
Methods: Four new FLNc mutations have been identified in four Spanish patients with a diagnosis of cardiomyopathy. After that, a genetic study was carried out in their respective families along with a complete clinical evaluation (electrocardiogram, Holter, echocardiography and cardiovascular MRI) both in carriers of mutations and in non-carriers.
Results: Four Spanish families have been studied for suspected familial cardiomyopathy, finding ten cases in Family 1 and four cases in Family 2, ruling out segregation in the remaining two families (Case 1 and Case 2). Genetic analysis showed the following mutations in the FLNc gene: Leu194Profs*52 (Family 1), c.4288+2T> G (Family 2), p.Glu2334Lys (Case 1) and p.Arg2340Trp (Case 2). Carriers of the mutation show data consistent with arrhythmogenic cardiomyopathy in Families 1 and 2, restrictive cardiomyopathy in Case 1 and overlap of restrictive cardiomyopathy with non-compacted in Case 2. Clinical features N=16 Age 43.67±20.25 Female 38.89% NYHA class 1.46±0.66% CK elevation 50% Epsilon-wave 0% T-wave inversion 69.23% LVEF 50.6±36.32% RVEF 60.83±22.56% Late gadolinium enhancement 57.14%
Conclusions: Mutations in FLNc are capable of causing different phenotypes of cardiomyopathies. New studies are needed in order to elucidate why various mutations in the FLNc gene lead to the appearance of different phenotypes.

DOI: 10.12890/2022_V9Sup1

1768 / #EV0083

CARDIOMYOPATHIES DUE TO MUTATIONS IN FILAMIN-C: RELATIONSHIP BETWEEN GENOTYPE AND PHENOTYPE

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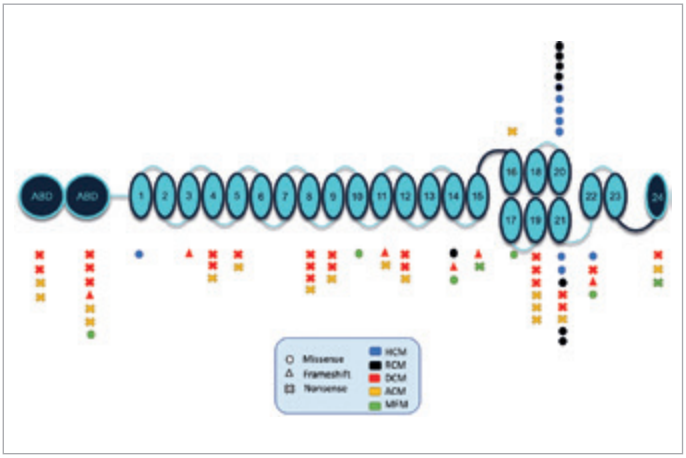
Background and Aims: Mutations in filamin-c (FLNc), unlike other genes causing cardiomyopathy, are capable of causing different types of myofibrillar and myocardial disease. Recent studies launch numerous hypotheses about the pathophysiological mechanisms underlying the different mutations observed. This study tries to find a causal relationship between the type of mutation and the phenotype of cardiomyopathy.

Methods: An exhaustive search was carried out through the main search engines (MEDLINE®) and genetic databases (dbSNP and gnomAD) collecting the FLNc mutations registered in them.

Results: A total of 68 mutations were obtained, of which 8 were associated with hypertrophic cardiomyopathy (HCM), 9 with restrictive cardiomyopathy (RCM), 28 with dilated cardiomyopathy (DCM), 16 with arrhythmogenic cardiomyopathy (ACM) and 7 with myofibrillar myopathy (MFM). Regarding genotype, missense mutations (those that produce the appearance of a premature termination codon) are exclusively associated with HCM and RCM cases. Nonsense and frameshift mutations are associated with DCM and ACM cases. In the 7 cases of MFM, heterogeneity was observed in the type of mutation. About the location of the mutations in the FLNc protein, it should be noted that the misssense types are predominantly located in domains 20 and 21 while the nonsense and frameshift types are found throughout the entire protein.

Conclusions: Mutations in FLNc can generate various phenotypes of cardiomyopathy. The present study provides great strength to the hypothesis that nonsense and frameshift-type mutations are associated with arrhythmogenic and dilated phenotypes, while missense-type mutations are associated with hypertrophic and restrictive phenotypes. This relationship is not observed in myofibrillar myopathies.



#EV0083 Figure 1.

1686 / #EV0084

EFFICACY AND SAFETY OF MONOTHERAPY WITH CLOPIDOGREL VERSUS ASPIRIN IN PATIENTS WITH ESTABLISHED CARDIOVASCULAR DISEASE: SYSTEMATIC REVIEW AND META-ANALYSIS

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Background and Aims: The aim of the study was to compare the safety and efficacy of clopidogrel versus acetylsalicylic acid (ASA) in patients with established cardiovascular disease.

Methods: A systematic review of MEDLINE® (via PubMed), Scopus, and Cochrane Library databases (last search date: August 28th, 2021) was performed according to the PRISMA statement for randomized control trials (RCTs) of clopidogrel versus ASA as monotherapy in patients with established cardiovascular disease. Random-effects meta-analyses were performed.

Results: Five RCTs incorporating 26,855 patients (clopidogrel: 13,426; ASA: 13,429) were included. No statistically significant difference was observed between clopidogrel and ASA in terms of all-cause mortality (odds ratio [OR]: 1.01 [95% Confidence Interval (95%CI):0.91-1.13]; p=0.83), ischemic stroke (OR: 0.87 [95%CI:0.71-1.06]; p=0.16) and major bleeding rates (OR: 0.77 [95%CI:0.56-1.06]; p=0.11). Patients receiving clopidogrel had borderline lower risk for major adverse cardiovascular events (MACE) (OR: 0.84 [95%CI:0.71-1.00]; p=0.05) and lower risk for non-fatal myocardial infarction (OR: 0.83 [95%CI:0.71-0.97]; p=0.02, relative-risk-reduction=16.9%, absolute-risk-reduction=0.5%, number-needed-to-treat=217 for a mean period of 20 months) compared to patients receiving ASA.

Conclusions: In patients with established cardiovascular disease, clopidogrel was associated with a 17% relative-risk reduction for non-fatal MI, borderline decreased risk for MACE and similar risk for all-cause mortality, stroke and major bleeding compared to ASA.

DOI: 10.12890/2022_V9Sup1

1990 / #EV0085

RESTORATION OF SINUS RHYTHM IS ASSOCIATED WITH IMPROVED OUTCOME IN PATIENTS WITH ACUTE ISCHEMIC STROKE AND PAROXYSMAL ATRIAL FIBRILLATION

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Background and Aims: Atrial fibrillation (AF) is the most common arrhythmia identified during hospitalization for acute ischemic stroke. It is unclear whether early implementation of a rhythm control strategy is beneficial in patients with acute ischemic stroke. We sought to investigate whether in-hospital restoration of sinus rhythm (SR) is associated with improved outcome in patients with acute ischemic stroke and paroxysmal AF (PAF).

Methods: The analysis included prospectively collected data from consecutive ischemic stroke patients with confirmed PAF identified during hospitalization. Patients were followed-up for up to 10 years or until death. We investigated the effect of SR restoration on 10-year all-cause mortality, stroke recurrence, and composite cardiovascular events (CVEs). Cox-proportional hazards analysis was performed to identify independent predictors for each outcome.

Results: Among 313 ischemic stroke patients with PAF, 230 (73.5%) patients had in-hospital SR restoration, while SR was not restored in 83 (26.5%) patients. Rhythm control medication in the early phase of acute ischemic stroke significantly increased the likelihood of restoring SR compared to rate control [odds ratio(OR): 3.29, 95% confidents intervals(CI): 1.90-7.1]. After a mean period of 41.6±40.9 months, 155 patients died, 55 experienced a recurrent stroke and 75 had a composite CVE. SR restoration was associated with a significantly lower risk of death [adjusted hazards ratio(HR), 0.66; 95% CI, 0.43-0.99], lower risk of stroke recurrence (adjusted HR: 0.54; 95%CI: 0.30-0.98), and CVEs (adjusted HR: 0.54; 95%CI: 0.33-0.88).

Conclusions: Early SR restoration is associated with improved survival, lower risk of stroke recurrence and CVEs in patients with acute ischemic stroke and PAF.

2363 / #EV0086

SEVERE AORTIC STENOSIS: AN ASSOCIATION NOT ALWAYS REMEMBERED

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Case Description: A 65-year-old man, with history of hypertension and dyslipidemia, goes to the emergency department (ED) for chest pain, fatigue, lipothymia and episodes of dark stools for a week.

Clinical Hypothesis: At observation he presented discolored skin and mucous membranes.Cardiac auscultation was rhythmic with a grade III/VI mesositolic murmur that was more audible at the aortic focus. Hypotensive tension profile, 82/48 mmHg. Analysis revealed: normocytic, hypochromic anemia (Hb 9.1 g/dL; VGM 92fL); NT-proBNP 715 pg/ml; hs-cTnI 26 pg/ml. Electrocardiogram showed sinus rhythm, heart rate of 79 bpm;inverted t-wave in V4-V6, D1, DII and aVL. During the stay in the ED the patient presented chest pain,hypotension refractory to fluid therapy and a decrease of hemoglobin value to 7.7g/dl. Was admitted to the intensive care unit (ICU) and started on vasopressors,non-invasive ventilation and blood transfusion.

Diagnostic Pathways: A transthoracic echocardiogram was performed revealing severe aortic stenosis (AS) with moderate aortic regurgitation associated with hypertrophy and depressed global systolic function. Upper digestive endoscopy, colonoscopy and coronary angiography were performed,with unremarkable findings. Performed complete enteroscopy of the small bowel which revealed the presence of vascular lesion of the jejunum(angiectasia). A diagnosis of severe AS associated with anemia in the context of small bowel angiectasia: Heyde's Syndrome (HS) was assumed. Surgical aortic valve replacement was performed without recurrence of gastrointestinal bleeding.

Discussion and Learning Points: HS is an infrequently encountered clinical entity.Despite the poor understanding between the intestinal angiectasia and AS, proper repair of aortic valve can result in significant improvement of GI bleeding and its recurrence. Thus,it is prudent that physicians be aware of this condition so that cases of HS are diagnosed and treated in a timely manner.

 DOI: 10.12890/2022_V9Sup1

983 / #EV0087

HYPERTROPHIC CARDIOMYOPATHY: A PROBLEM TO SOLVE

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Case Description: A 69-year-old male was admitted in the emergency room in hypertensive acute pulmonary oedema. He was a current smoker with regular alcohol consumption, previously diagnosed with diabetes mellitus, hyperuricemia and overweight. Electrocardiogram showed sinus rhythm and voltage criteria for left ventricular hypertrophy (LVH) without signs of acute ischemia. A transthoracic echocardiogram disclosed a mildly dilated left ventricle (LV) with marked hypertrophy of the LV, papillary muscles, and right ventricle. LV function was severely depressed (LV ejection fraction 29%) with reduced global longitudinal strain and apical sparing pattern.

Clinical Hypothesis: Considering the hypertrophic phenotype the following diagnostic hypothesis were considered: hypertrophic cardiomyopathy (HCM), amyloidosis, Fabry's disease and hypertensive cardiopathy.

Diagnostic Pathways: DPD-99mTc scintigraphy did not show radiopharmaceutical uptake; serum and urinary immunofixation were negative. Cardiac magnetic resonance revealed severe concentric LVH and right hypertrophy, with diffuse subendocardial pattern of fibrosis with predominant involvement of the lateral wall suggestive of amyloidosis disease, although not excluding concentric phenotype of HCM. Dry drop test was negative for Fabry's disease. Cardiac genetic test was inconclusive, with uncertain meaning variants in ANKRD1, MYH6 and MYH7.

Discussion and Learning Points: In the presence of severe LVH, although there was no family history and the identified sarcomeric protein genes mutations are unspecific, HCM or a phenocopy cannot be excluded. However, uncontrolled hypertension, due to therapeutic non-compliance, may contribute to LV hypertrophy and dysfunction. As the patient presented with LV dysfunction, disease-modifying therapy was introduced and the patient maintains clinical surveillance in the outpatient clinic, where investigation will continue.

587 / #EV0088

A SYSTEMATIC REVIEW ON THE ROLE OF INTERNAL JUGULAR VEIN AND INFERIOR VENA CAVA ULTRASOUND IN THE ASSESSMENT OF HEART FAILURE

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Background and Aims: Recent reports suggested to use internal jugular vein (IJV), inferior vena cava (IVC) ultrasound measures to confirm congestion and to predict prognosis in Heart Failure (HF) . Aims: to check the validity of the previous US measures in predicting HF diagnosis and prognosis

Methods: This review, based on the PRISMA guideline, explored the PubMed, Web of Science, and Scopus databases. Inclusion criteria were studies on the reliability, accuracy in predicting Heart Failure (HF) diagnosis and death or re-hospitalization of the following US measures: internal jugular vein (IJV), inferior vein cava (IVC) diameters, IVC collapsibility index used in adult. Five researchers selected studies using inclusion criteria and then assessed their quality using the QUADAS-2 guidelines. The key words for literature search were: internal jugular veins, inferior vena cava, ultrasonography and heart failure.

Results: We collected 744 studies: 721 excluded with reasons, 23 studies were included for the final analysis . A IJV ratio < 4 predicts death and readmission : HR=2.7-10. A IVC ≥2 cm and IVC-c ≤15% showed an high accuracy in HF diagnosis and a moderate validity in predicting death and re-admission : AUC=0.63-0.78; HR=1.1-5.8 for IVC; AUC=0.63-0.74, HR=0.7-6.8 for IVC-c. .The studies collected showed a moderate quality according to QUADAS-2 guidelines.

Conclusions: Because few reports have been published on this topic the conclusions of this review should be confirmed. The IJV and IVC US measures seem to have a moderate accuracy in predicting diagnosis, death and hospitalization in patients with HF.

2057 / #EV0089

EUSTACHIAN VALVE THROMBOSIS: A RARE AND AMBIGUOUS ENTITY

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Case Description: A 80-year-old woman with type 2 diabetes mellitus and epilepsy presented to the hospital because of syncope. Physical examination was remarkable for irregular heart rate (180 cycles/min) and bilateral basal rales; the patient had mild hypoxemia and there were no signs of deep venous thrombosis. Electrocardiogram revealed atrial fibrillation rate with rapid ventricular response.

Clinical Hypothesis: The primary diagnostic consideration was heart failure versus pulmonary embolism.

Diagnostic Pathways: Transesophageal echocardiogram showed ostium secundum atrial septal defect with left-to-right shunt and a mobile, irregular mass, attached to a prominent Eustachian valve (EV), consistent with thrombus. Computed tomography pulmonary angiography showed multiple segmental arterial filling defects and pulmonary artery, right atrial enlargement, signs of pulmonary hypertension. The patient's course was unremarkable, with no signs of pulmonary nor systemic embolism, and she was discharged on warfarin.

DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points:
EV is an embryological remnant of the inferior vena cava that usually regresses and is absent in adults. Persistent EV is considered a rare benign condition that is frequently ignored in clinical practice. However, in rare cases, EV was associated with thrombosis and endocarditis. This case shows that EV can have a clinically pathologic significance. EV thrombus is a rare condition but it carries serious implications due to the potential for pulmonary and systemic embolism. The risk of systemic embolism is particularly concerning in the presence of patent foramen ovale. Prompt diagnosis and treatment is therefore necessary. However, EV is an ambiguous entity, because it can be a safe net for a blood clot in transit and thus prevent pulmonary embolism.

1420 / #EV0090

ABDOMINAL AORTIC ANEURYSM. THE IMAGE THAT NEEDS NO REPORT.

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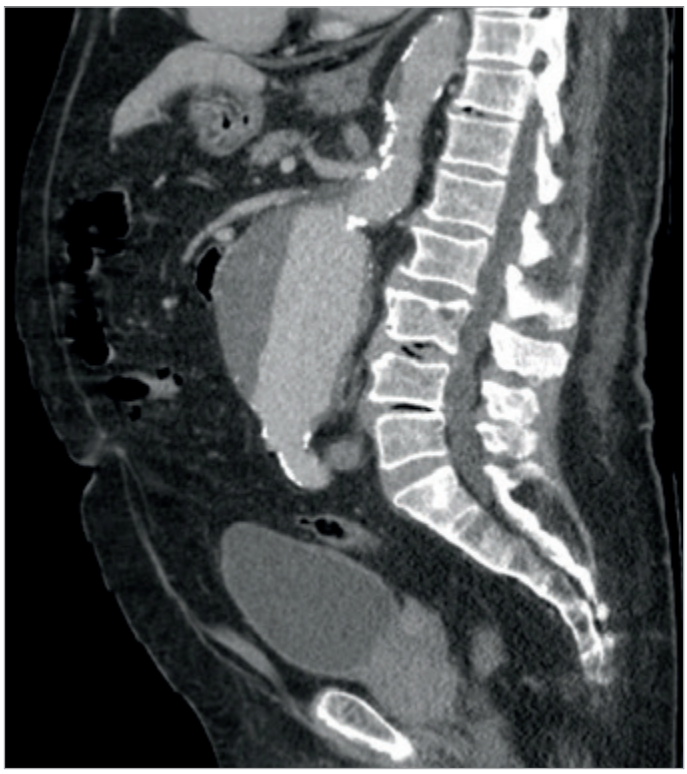
Case Description: Male, 92 years old, autonomous. History of hypertension, dyslipidemia, obesity, atrial fibrillation hypocoagulated, ischemic heart disease and chronic kidney disease. Goes to the Emergency Department for right low back pain of sudden installation, with irradiation to the epigastrium. On physical examination, tachycardia and hypophonesis on cardiopulmonary auscultation, without other significant changes.
Clinical Hypothesis: Acute Coronary Syndrome Aortic Dissection
Diagnostic Pathways: Analytically, relative neutrophilia and discret elevation of myocardial necrosis markers. Thoraco-abdomino-pelvic CT was performed, which showed saccular aneurysm of the infrarenal aorta with partially thrombosed lumen, without signs of rupture, with a transverse diameter of 10 cm.
Discussion and Learning Points: This case illustrates the presence of severe aneurysmal disease in the elderly patient.



#EV0090 Figure 1.

900 / #EV0091

ULTRA SHORT HEART RATE VARIABILITY FOR EARLY RISK STRATIFICATION IN PATIENTS WITH ACUTE MYOCARDITIS

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Background and Aims: Acute myocarditis (AM) has a varying course and may lead to cardiogenic shock, arrhythmia, heart failure and death. Heart rate variability (HRV) is the fluctuation in the time intervals between adjacent heartbeats, which is considered a surrogate of the autonomic nervous system. Ultra short HVR (usHRV) measurements may be accurately produced from electrocardiograph (ECG) strips as short as 10 seconds. Our aim was to determine the prognostic significance of usHRV indices in AM patients.
Methods: This retrospective analysis included all patients diagnosed with AM at the Rambam Health Care Campus (Haifa, Israel) between 2010-2015. Patients' emergency department ECG, as well as demographic, clinical and laboratory parameters, were collected utilizing MDClone (Be'er Sheva, Israel) data-mining platform. We focused on usHRV time [Root Mean Square of Successive Differences between adjacent NN intervals (RMSSD)] and frequency [Low Frequency (LF), High Frequency (HF)] domain

 DOI: 10.12890/2022_V9Sup1

variables. Logistic Regression (LR) analysis was conducted.
Results: The study included 123 patients, with a mean age of 34±14 years. 86% were men. Patients with RMSSD<11.155 ms were found to have developed new heart failure or dilated cardiomyopathy (multivariate LR Adjusted Odds Ratio (AOR) 3.607, p-value 0.038; Area-Under-Curve (AUC) of 0.798). LF and HF, were integrated into a multivariate LR model for severe short term complications (composite outcome including 30-day mortality, ventricular arrhythmia, new moderate degree (per echocardiogram) heart failure) – AOR 0.990, 0.989, p-value 0.005, 0.002; respectively; AUC of 0.860.
Conclusions: In patients with AM, time and frequency domain usHRV parameters may be correlated with poor outcomes.

1671 / #EV0092

SEVERE AORTIC STENOSIS AND TRANSCATHETER AORTIC VALVE REPLACEMENT: EXPERIENCE WITH 3 ELDERLY PATIENTS

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Case Description: We present the clinical cases of 3 elderly patients with severe symptomatic aortic stenosis, their comorbidities, and discuss the risks, indications and contraindications of this procedure.
Clinical Hypothesis: All patients were admitted because of severe symptomatic aortic stenosis.
Diagnostic Pathways: Diagnosis was confirmed by transthoracic echocardiogram. The patients were submitted to pre TAVR screening that included coronariography, pulmonary function tests and transcranial doppler and cervical duplex ultrasounds.
Discussion and Learning Points: Severe symptomatic aortic stenosis has a poor prognosis. Until recently, surgical aortic valve replacement was the standard of care in adults with severe symptomatic aortic stenosis. However, the risks associated with surgical aortic valve replacement are increased in elderly patients and those with concomitant severe systolic heart failure, coronary artery disease, cerebrovascular and peripheral arterial disease, chronic kidney disease and chronic respiratory insufficiency. Transcatheter aortic valve replacement (TAVR) is a minimally invasive catheter-based procedure to replace the function of the aortic valve, and it is an alternative to the surgical approach in high-risk and inoperable population. TAVR may be an excellent option for elderly patients because of the prevalence of aortic stenosis and comorbidities that may increase the risks of surgical procedure.

1230 / #EV0093

PHLEGMASIA CERULEA DOLENS: AN UNCOMMON PRESENTATION OF DEEP VEIN THROMBOSIS

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Case Description: A 90-years-old man with multiple cardiovascular risk factors who presented to the Emergency Department with left leg pain and colour change with a few hours of evolution. He was inoculated with the 3rd dose of COVID-19 vaccine and the flu vaccine about 5 hours earlier. No trauma history was reported. On physical examination, he was hemodynamically stable, but his left leg was cold with asymmetric oedema, cyanosed till proximal thigh and without palpable femoral or dorsalis pedis pulses.
Clinical Hypothesis: Given the rapid evolution, we hypothesized an acute lower limb ischemia, which is a surgical emergency.
Diagnostic Pathways: The blood tests showed slight inflammatory parameters increase, but no hyperlacticaemia. Venous doppler of left limb revealed an acute deep vein thrombosis of the iliac, femoral and popliteal veins, without arterial occlusion.
Discussion and Learning Points: Phlegmasia cerulea dolens (PCD) is a syndrome characterized by limb swelling, ischemic pain and cyanosis. Although its rarity notwithstanding, PCD is a life-threatening condition and it's crucial for nonvascular specialists to recognize it promptly and accurately.

2230 / #EV0094

EXPERIENCE OF DRUG-MECHANICAL THROMBOLYSIS IN VENOUS THROMBOSIS OF UPPER LIMB

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Case Description: Framed in compression syndromes: Thoracic outlet syndrome. Primary 25%: Paget–Schröetter syndrome (spontaneous or effort axillo-subclavian) Secondary 75%: catheter, polyglobulia, extrinsic compression, neoplastic disease, hypercoagulability, chemotherapy, infections, central venous catheter. Incidence: MMSS DVT 2-5% of total DVT, and Paget–Schröetter syndrome, 0.5-2% of all DVT. Treatment goals: Limit post-thrombotic syndrome. Objectives: description of the characteristics of the patients included in the series. Evaluate the experience in performing drug-mechanical thrombectomy, in patients with venous thrombosis of the upper limb, predominantly axillo-subclavian. Material and metods: data was collected from 21 patients treated with thrombectomy, affected by axillo-subclavian upper limb venous thrombosis, during the period between April 2018 and March 2021. Demographic as well as clinical variables were analyzed such as risk factors, comorbidities, thrombophilia, patency result, recurrences.

DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: As initial treatment, anticoagulation alone is inferior to interventional procedures (thrombectomy).
Diagnostic Pathways: Patients diagnosed with subclavian axillary thrombosis were included by means of Doppler ultrasound and phlebography before and after treatment.
Discussion and Learning Points: Paget–Schröetter syndrome is a rare entity that affects young and healthy individuals, in which it is essential to establish an early diagnosis to obtain an adequate venous repermeabilization.Surgical removal of the cause of the blood flow obstruction (anterior scalenotomy or resection of a cervical rib) combined with catheter-directed thrombolysis. Multidisciplinary management by catheter-guided local thrombectomy and decompressive surgery presents satisfactory resu lts, without relevant complications and a much lower incidence of PTS compared to conservative treatment.

705 / #EV0095

ANALYSIS OF RISK FACTORS IN YOUNG PATIENTS WITH PULMONARY EMBOLISM AND SCREENING FOR HEREDITARY THROMBOPHILIA IN TYPICAL CLINICAL PRACTICE

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Background and Aims: To study the risk factors (RF) of venous thromboembolic complications (VTEC) and to analyze the prevalence of the study for hereditary thrombophilia in young patients with pulmonary embolism (PE).
Methods: Retrospective analysis of case histories of all patients aged 18-45 years hospitalized in the period from 2015 to 2020 at the cardiology center, discharged with a final diagnosis of PE: 22 women, 19 men.
Results: Only in three cases (7%) there were no established RF of VTEC. Among patients with 4 or more RF, men predominated statistically significantly (p=0.0019). In men, the most frequently identified RF were arterial hypertension and obesity (32% each); in women - the use drugs containing sex hormones of (50%, the prevalence over other RF is statistically significant (p<0.05 for all comparison pairs).
Of 11 patients with a family history of VTEC, all are assigned screening for thrombophilia (100%).
14 out of 29 patients (48%) in the intermediate-risk group of recurrence were recommended to be tested for thrombophilia. Doctors do not indicate (0%) which types of thrombophilia should be tested (namely, F2 and F5 mutations, antithrombin deficiency, protein C deficiency, protein S deficiency).
Conclusions: Women and men of young age differ in the presence of FR of PE: in women, the greatest contribution is made by drugs containing sex hormones.
Doctors recommend testing for thrombophilia 100% of cases if the patient has a family history of VTEC, but the importance of testing patients in the intermediate-risk category (48%) is underestimated.

105 / #EV0096

RIGHT VENTRICULAR THROMBUS

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Case Description: A 41-year-old female with a past medical history of ductal carcinoma of the breast submitted to neoadjuvant chemotherapy and right mastectomy 5 years before, currently under treatment with Tamoxifen, presented to the Emergency Department with a 1-month history of regular palpitations, accompanied by shortness of breath in the past week. Physical examination was remarkable for tachycardia (heart rate of 122 bpm), pallor and bimalleolar edema.
Clinical Hypothesis: Blood tests revealed anemia (Hb 9.5 g/dL), D-dimer elevation (6681 ng/mL) and elevation of transaminases with a cholestatic pattern. Electrocardiogram showed a sinus tachycardia with S1Q2T3 pattern and T wave inversion in pre-cordial leads.
Diagnostic Pathways: A CT- angiography of chest, abdomen and pelvis was performed and showed lobar bilateral pulmonary embolism, without involvement of the main pulmonary arteries, an image suggestive of thrombus in the right ventricle, hepatomegaly due to spread metastasis, signs of pulmonary lymphangitic carcinomatosis and necrotic celiac adenopathy. Transthoracic Echocardiogram confirmed the large right ventricular thrombus, showing extension to the outflow tract and distal akinesia. The patient started therapeutic anticoagulation with Enoxaparin and palliative chemotherapy, without improvement.
Discussion and Learning Points: Right ventricular thrombi are a rare but clinically significant condition. Their prevalence in pulmonary embolism is estimated to be 3.7% and their presence significantly increases mortality. In this case, the procoagulant state associated with a metastasized malignancy lead to the development of a pulmonary embolism and right ventricular thrombus. Because de patient never developed hemodynamic instability, thrombolysis was never indicated and, as such, never performed. Optimal treatment for this condition is yet to be determined.

 DOI: 10.12890/2022_V9Sup1

2071 / #EV0097

SILENT AORTIC ANEURYSM RUPTURE

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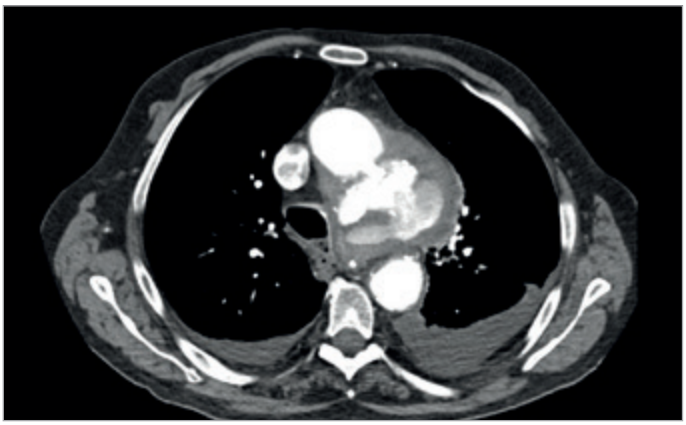
Case Description: A 76-year-old man with history of ascending aortic aneurysm and heart failure, presented in the Emergency Department with asthenia, hoarseness, dyspnea, and productive cough with purulent sputum for 2 weeks.
Clinical Hypothesis: He was admitted to the Internal Medical Service for community-acquired pneumonia with decompensated heart failure.
Diagnostic Pathways: He had a favourable evolution, presenting positive serology for Mycoplasma pneumoniae (IgM and IgG). On the 7th day of hospitalization, he experienced acute onset of cough with hemoptysis. Clinical examination showed hypotension, tachypnea and peripheral cyanosis. He denied any pain. There were no other relevant findings. Chest CT scan with contrast revealed aneurysmal rupture of the aortic cross contained in a saccular formation with signs of recent bleeding and with compression of adjacent structures. He was submitted to aneurysmatic repairing with a thoracic endovascular prosthesis by the femoral vein. However, the prosthesis did not fully fix the escape in the thoracic aorta, becoming a fatal condition.
Discussion and Learning Points: Only 10% of aortic aneurysm are in the aortic cross. Generally, it only becomes symptomatic when it reaches a size large enough to compress or invade adjacent structures or after a complication such as dissection or rupture. Symptoms depend on their location. Hoarseness, and dysphagia are common in the aneurysms of the cross and descending aorta. Wheeziness, cough, hemoptysis, dyspnea, or pneumonitis may also arise if there is compression of the respiratory tract. Usually, rupture manifests itself with thoracalgia, hypotension or shock; however, the diagnosis in this case was delayed due to sub-acute appearance and nonspecific symptoms.



#EV0097 Figure 1.

2727 / #EV0098

RARE ENTITY, COMMON SYMPTOM

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Case Description: A 62-years-old women was admitted to the hospital with a history of fever of unknown origin. On admission, the patient had been taking vitamin K antagonist anticoagulants following mechanical aortic prosthesis replacement surgery, switched to low body weight enoxaparin in therapeutic doses. Six days after admission, she complaint of dorsal and left flank pain. Over the next 24 hours, the clinical course evolved with hypotension, tachycardia, hyperlactacidemia and a drop in haemoglobin level to 5.6 g/dL.
Clinical Hypothesis: CT scan revealed two voluminous retroperitoneal hematomas. Enoxaparin was discontinued and she was admitted to an intermediate care unit with the diagnosis of hemorrhagic shock. Control CT scan showed an increase in the dimensions of the hematoma, but angiography did not reveal ative hemorrhage.
Diagnostic Pathways: Progressive improvement of the dimensions of two hematomas occurred alongside with resolution of pain.
Discussion and Learning Points: The spontaneous retroperitoneal hematoma is rare, potentially fatal and strongly associated with hypocoagulation. Its form of non-specific presentation can delay the diagnosis, being essential or its early recognition.

1000 / #EV0099

FACTORS RELATED TO THE PRESCRIPTION OF DRUGS WITH PROVEN CARDIOVASCULAR BENEFIT IN PATIENTS HOSPITALIZED WITH ISCHEMIC CARDIOVASCULAR DESEASE AND DIABETES MELLITUS

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Background and Aims: Recently, some antidiabetic drugs has been shown an aditional benefit reduction to ischemic events and cardiovascular mortality. The objective of this work is to assess the factors that are related to the prescription of drugs that have demonstrated cardiovascular benefit in a cohort of patients with DM2 at discharge due to a cardiovascular event.
Methods: Retrospective cohorts, included all cases admitted to Hospital Antequera for cardiovascular ischemic event during 2020. Descriptive and comparative bivariate and multivariate ($p < 0.05$). The strength of the association was measured by relative risk (RR).

DOI: 10.12890/2022_V9Sup1

Results: A total of 140 patients with DM2 and cardiovascular events were admitted. 30.5% women. The mean age of 73.3 years. Mean duration of diabetes was 9.78 years. Most frequent comorbidities include hypertension 82.2%, hypercholesterolemia 62.4%, obesity 54%. Ischemic heart disease 32%, stroke 19.8%. Mortality was 15%. Treatment upon admission: 74% with ACE inhibitors or ARB2, 42% beta-blockers; nitrates 21%, antiplatelet drugs 52% and statins 56%. Antidiabetic treatment: metformin 67%, sulfonylureas 12%, glinides 5%, DPP4 20%, aGLP1 and/or iSGLT2 20%. Multivariate analysis showed association between prescription of aGLP1/iSLGT2 and age RR 0.9 (95% CI 0.87-0.95), peripheral artery disease RR 0.16 (95% CI 0.1-0.65) and insulin treatment RR 4.4 (95% CI 2-11).
Conclusions: Age, peripheral arterial disease and insulin treatment were related to prescription aGLP1/iSLGT2 in diabetic patients hospitalized for ischemic events.

1734 / #EV0100

ALTERED CARDIOMETABOLIC HEALTH BY CIRCADIAN BIORHYTHM AMONG PATIENTS WITH CORONARY HEART DISEASE

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Background and Aims: Chronodisruption has been associated with cardio-vascular diseases (CVD), established it as a novel cardiometabolic risk factor. The aim of this study was to assess the differences in cardiometabolic health between chronotype determined by temperature, activity and position biorhythm.
Methods: Daily rhythm was recorded in a subset of 169 participants with coronary heart disease from the CORDIOPREV study (NCT00924937) during consecutive 7 days using an external device. Based on the acrophase of an integrative variable TAP (Temperature (T), Activity (A), Position (P)) we classified the participants as the morning, intermediate and evening subjects. Lipid profiles and homocysteine were measured at baseline and every year during the 4 years of follow-up. During the first years of study information about meal and sleep timing was collected for one week. To determine the differences in baseline between chronotypes we used analysis of variance (ANOVA). On the 4-year follow-up, we used a general linear model of repeated measures of each year of the study. Potential confounding factors were included as covariates in the tests.
Results: Evening subjects showed higher triglycerides levels at baseline (p=0.04) and during the follow-up of the first four years (p=0.03) and higher homocysteine levels during the follow-up (p=0.03) compare to morning subjects. In addition, evening subjects showed later meals (breakfast, lunch, dinner and midpoint of intake) and sleep timing (bedtime and wake time) compare to morning subjects (p<0.05).
Conclusions: Our work demonstrated in coronary heart disease patients, that subjects classified as an evening by daily rhythm had worse cardiometabolic health.

1736 / #EV0101

THE CHRONODISRUPTION AS A NOVEL CARDIOMETABOLIC RISK FACTOR AMONG CORONARY HEART DISEASE SUBJECTS FROM CORDIOPREV STUDY

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Background and Aims: Chronodisruption is emerging as a risk factor for cardiovascular disease, as evening chronotypes (with worse lifestyles) are prone to suffer chronodisruption. This study aimed to assess the relation of chronotype and chronodisruption with cardiometabolic risk among coronary heart disease subjects.
Methods: A cohort of 857 participants with coronary heart disease established from the CORDIOPREV study was classified according to chronotype using a validated Morningness-Eveningness Questionnaire (MEQ). They were classified as evening, indeterminates and morning subjects. At the baseline of study and every year during the first four years of the study, biological samples were collected determining lipid profile, homocysteine and hs-CRP, and diet and physical activity questionnaires were recorded. In addition, anthropometric measures were recorded every year and metabolic syndrome was calculated.
Results: Evening subjects showed higher cardiometabolic risk, with higher triglycerides, hsCRP and homocysteine levels and lower HDL-C levels compare to mornings subjects (p<0.05) with higher odds of having metabolic syndrome (OR 1.58, p 0.01). In addition, evening subjects were less active and more sedentary during the first four years of the follow-up compare to morning subjects (p<0.05). Finally, evening subjects showed lower adherence to a healthy diet (Mediterranean diet) at the baseline of the study (p 0.02).
Conclusions: Our work demonstrated in coronary heart disease patients, that subjects classified as evening had higher cardiometabolic risk compared to mornings subjects. To determine the chronotype in subjects with high cardiovascular risk could support an individual personalized lifestyle intervention.

 DOI: 10.12890/2022_V9Sup1

1738 / #EV0102

CIRCADIAN HEALTH BY CHRONOTYPE AMONG CORONARY HEART DISEASE SUBJECTS FROM CORDIOPREV STUDY

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Background and Aims: Circadian disruption, a disturbance of the internal temporal order of physiological circadian rhythms, has been related to cardiovascular risk. This study aimed to assess the circadian health status by chronotype among coronary heart disease subjects.

Methods: A subset of 169 participants with coronary heart disease established from the CORDIOPREV study was classified according to chronotype using a validated Morningness-Eveningness Questionnaire (MEQ). They were classified as evening, indeterminates and morning subjects. The daily rhythm of these subjects was recorded during consecutive 7 days using an external device. From the daily rhythm of Temperature, Activity and Position, an integrative variable called TAP was calculated. To estimate the circadian health status by chronotype TAP derived circadian-related parameters were calculated, such as the relative amplitude (RA), interday stability (IS) and intraday variability (IV), L5 (five consecutive hours of lowest values in TAP) and its timing (L5 midpoint), M10 (ten consecutive hours of highest values in TAP) and its midpoint (M10 timing), and the circadian function Index (CFI). In addition, the daily waveform of activity, temperature, position and TAP were recorded.

Results: Evening subjects showed lower amplitude ($p=0.04$), greater fragmentation ($p=0.04$), less stable pattern from day to day ($p<0.01$), and lower robustness ($p<0.01$) compared to morning subjects. In addition, evening subjects showed delayed patterns of TAP and physical activity with less activity in the mornings.

Conclusions: Our findings support the evidence of the predisposition of the evening subjects to having circadian disruption with impairment of circadian health status compare to morning subjects.

1781 / #EV0103

WHEN HYPOCOAGULATION IS NOT ENOUGH…

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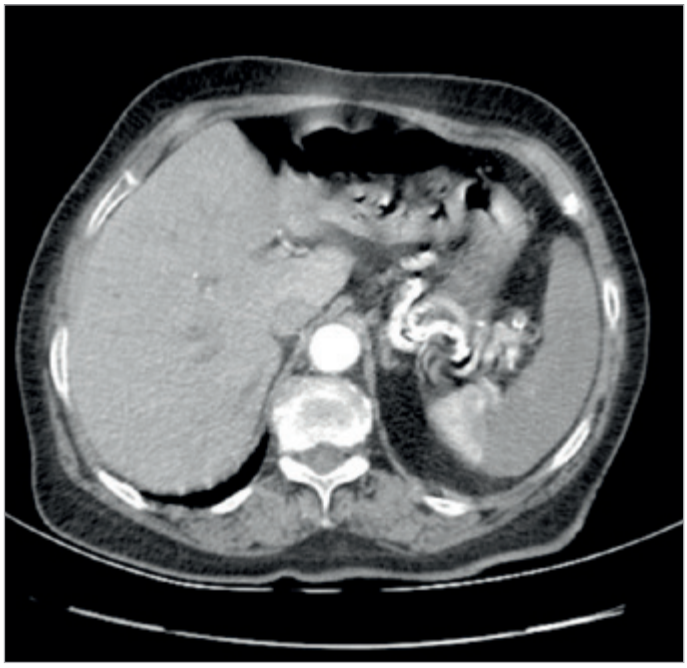
Case Description: 77-year-old female, with prior history of hypertension, multifactorial heart failure and hypocoagulated atrial fibrillation with New Direct Oral Anticoagulants (DOAC). Recent admission to General Surgery in the context of mucosectomy (hyperplastic polyp), that suspended DOAC 48h before and started enoxaparin at a therapeutic dose. Came to emergency room with left back pain and irradiation to the left flank, with a 2-day evolution with a positive kidney Murphy.

Clinical Hypothesis: Acute pyelonephritis.

Diagnostic Pathways: CT scan showed splenic hypodensity involving half of the splenic parenchyma visualized either in the arterial or venous phase, translating splenic infarction. Started prophylactic ceftriaxone. The patient was discharge clinic oriented to General surgery under warfarin for contraindication of DOAC in gastric surgery.

Discussion and Learning Points: We describe a case of splenic infarction in a hypocoagulated patient in a study of suspected neoplastic lesion, having a high prothrombotic risk due to neoplasic desease.



#EV103 Figure 1.

2438 / #EV0104

THE GREAT IMITATOR: A YOUNG MALE WITH HYPERTENSION AND MULTIFOCAL INTRA-ABDOMINAL ARTERIAL DISSECTIONS, ANEURYSM AND STENOSIS

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Case Description: A 35-year old male patient initially presented with abdominal pain resulting from a renal infarct and later noted to have multiple intra-abdominal blood vessels abnormalities with celiac and left renal artery dissections, splenic artery aneurysm and left hepatic artery stenosis, which were demonstrated on serial imagings. Overall work-up indicated that the disease is non-atherosclerotic, non-inflammatory and non-infective in nature and the exact diagnosis was challenged without histology.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: This is a case of non-atherosclerotic, non-inflammatory and non-infective intra-abdominal arterial diseases. The possible diagnosis includes FMD, SAM and connective tissue diseases (CTD).
Diagnostic Pathways: Diagnosis is confirmed by Histology, supported by radiological and biochemical Investigations.
Discussion and Learning Points: It is difficult to differentiate between SAM and FMD clinically and radiologically. SAM is characterized by disruption of arterial media leading to loss of its supporting muscular wall [1], most commonly seen affecting the medium-sized muscular arteries (celiac, mesenteric, and renal arteries) of the abdomen [2]. FMD can be focal or multifocal with involvement of carotid, vertebral, coronary, renal and intracranial arteries, imaging of involved vessels show beading, stenosis, aneurysm, dissection and arterial tortuosity. Histology reveals medial dysplasia. The definitive pathogenesis of both FMD and SAM are unknown. The gold standard diagnosis of both SAM and FMD is based on histology.

1355 / #EV0105

CORRELATION OF HIGH HDL CHOLESTEROL AND MORTALITY IN EUGLYCEMIC PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Background and Aims: Background Elevated levels of High-density lipoprotein cholesterol (HDL cholesterol) are associated with decreased risk of all forms of atherosclerotic disease and its clinical sequelae, including myocardial infarction, stroke, and sudden death in type 2 diabetes mellitus patients. Purpose The aim of the study is to of correlate high HDL cholesterol and mortality in euglycemic patients with type 2 diabetes mellitus.
Methods: Methods The study was held for 3 years and included 616 euglycemic T2DM participants (6.5<HbA1c<7), 352 males (57,1%) and 264 females (42.9%), with mean age of 74±18 years. HbA1c, total cholesterol, HDL cholesterol, LDL cholesterol, and triglycerides levels were measured in 3, 6, 12 ,18, 24, 36 months, while deaths were also recorded. During the study 6 participants died (6 males, mortality rate 17/1000, 3 females mortality 11/1000).
Results: Results HDL cholesterol levels of dead males were counted among 95-125 mg/dl whereas HDL cholesterol levels were 115-142mg/dl. Risk ratio for males was 1.35 for HDL levels 95-115 mg/dl and 2.01 for HDL levels >116 mg/dl. Risk ratio for women was 1.1 for HDL levels 115-135 and 1.7 for HDL levels >135.
Conclusions: Conclusion High HDL cholesterol levels in euglycemic T2DM, were correlated with high mortality.

1616 / #EV0106

PREVALENCE, AWARENESS, TREATMENT, AND CONTROL OF HYPERTENSION AMONG ADULT RESIDENTS OF TEHRAN: THE TEHRAN COHORT STUDY

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Background and Aims: Hypertension is the most common modifiable cardiovascular risk factor. In this study, we aimed to assess the prevalence, awareness, treatment, and control of hypertension in Tehran.
Methods: We used the demographic, clinical, anthropometric, laboratory, and blood pressure (BP) measurements data of 8296 adults aged ≥35 years from the Tehran Cohort Study who were enrolled between May 2016 and February 2019. Hypertension was defined as systolic BP ≥140 mmHg or diastolic BP ≥90 mmHg, self-report of hypertension, and/or current antihypertensive medication use. The age- and sex-weighted prevalence of hypertension and high normal BP was calculated using the 2016 national census. Furthermore, awareness, treatment, and control of hypertension were analyzed.
Results: The mean age of the study population was 53.8 (SD: 12.75) years, and women constituted 54.0% of participants. The weighted prevalence of hypertension and high normal BP were 36.5% and 12.2%, respectively. Among hypertensive individuals, 68.2% were aware of their condition, 53.3% were receiving antihypertensive medication, and 40.4% had adequate BP control. The awareness, treatment, and control of hypertension were higher in women (all P-values <0.05) and considerably increased with advancing age (all P-values <0.001). However, these indices were significantly worse among men aged 55-75 years compared with women, forming a gap between men and women aged 55-75 years.
Conclusions: Despite the high prevalence of hypertension among the adult population of Tehran, the rates of awareness, treatment, and control of hypertension are unsatisfactory. Hence, comprehensive strategies are required to improve awareness, treatment, and control of BP, especially in younger men.

794 / #EV0107

THE LATENT CHANGES IN INSULIN SENSITIVITY IN LOW RISK ARTERIAL HYPERTENSIVE PATIENTS WITH POOR BLOOD PRESSURE CONTROL

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Background and Aims: Some patients with hypertension may have latent features of metabolic syndrome without clinical

 DOI: 10.12890/2022_V9Sup1

manifestations. Aim of study was to analyze the prevalence of the insulin resistance (IR) and the changes of tissue sensitivity to insulin (%S) in patients with AH who have uncontrolled levels of blood pressure (BP).
Methods: We have analyzed the specific cohort of 173 patients with isolated AH with the different durations of the disease course, non-regular use of the medication. Both with the control group we have measured the levels of fasting glucose, plasma insulin, and calculated the index of insulin resistance (IR) and insulin tissue sensitivity (%S) using model assessment HOMA2.
Results: We have set reliable tendency of the increase of the free insulin concentration in patients with AH (66.1±21.4 pcmol/l against 34.4± 9.4 pcmol/l, p<0,05). The calculation of the IR showed the mean level 1.55±0.44, with the 75%-percentile meaning in 1,87 as a real lower limit of the insulin resistance. We have found that the prevalence of higher level of IR was set 26.59% of patients. Using ANOVA we have set the reliable increase of IR and decrease of % depending on duration of AH in patients (F=2.94; p=0.035), especially in 5 and 10 years of AH duration in (p<0.05).
Conclusions: We may expect insulin resistance presence in a part of AH patients despite of normal reference levels of metabolic risk factors. The appurtenance to such "risk" group depends on the duration of uncontrolled blood pressure.

815 / #EV0108

THE MANIFEST TRIGLYCERIDAEMIA AND REMODELING OF HEART AND VESSELS IN PATIENTS WITH ARTERIAL HYPERTENSION.

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Background and Aims: The level of triglycerides (TG) has been shown to be an independent risk factor of the cardiovascular diseases recommended for general screening. We were interested in measuring of the TG's levels in patients with arterial hypertension (AH) as a marker of post exposure prophylaxis. Aim of the investigation was to set the degree of TG's manifestation with the heart and vessel remodeling in patients with AH.
Methods: We have examined the TG's level in 176 patients with AH according to the LV hypertrophy, diastolic dysfunction, diameters of internal carotids and inthima-media thickness (TIM), local arterial stiffness (index of stiffness (IS) and compliance coefficient (CC)). All the patients have belonged to the group of normal weight.
Results: The manifest triglycerideamia have been set in 75.5% patients with the III stage of AH, but only in 46.5% patients with II stage AH (p<0.01). The use of ANOVA wasn't found an association between TG's level and LV hypertrophy (p>0.05), but the dependency of TG on type of diastolic dysfunction (p<0.01). We have set significant association between the TG's levels and the changes of the diameters of internal carotids (with p=0.008 and p=0.03) and both TIMs (with p=0,038 and p=0.06). The analysis didn't show the reliable association between TG's level and local stiffness of a. carotis external with IS and CC (p>0.05).
Conclusions: We can consider that TG would be used as the marker of secondary prophylaxis in AH with the need to set the special threshold depending on damage of target organ.

2626 / #EV0109

WHEN PULMONARY HYPERTENSION COULD BE REVERSIBLE

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Case Description: This case report describes a 33-years-old woman, recently diagnosed with hyperthyroidism secondary to Graves' disease, who presented with progressive heart failure. Transthoracic echocardiogram (TTE) revealed mild tricuspid regurgitation with elevated estimated pulmonary artery systolic pressure (PASP), mild right and left atrial enlargement without left heart disease and normal biventricular systolic function.
Clinical Hypothesis: The diagnosis of pulmonary hypertension was suspected.
Diagnostic Pathways: Transesophageal echocardiogram showed the presence of a patent foramen ovale with a slight left-right shunt. Remain work-up for most common causes of PH was negative, such as disorders of respiratory system including hypoxemia, pulmonary thromboembolic and venoocclusive disease, connective tissue disease disease, portal hypertension, HIV infection, drugs, and toxins. Treatment with methimazole and radioiodine ablation with glucocorticoid coverage was made, and one year later patient has reached an euthyroid state. Patient reported an improvement of the symptoms. The follow-up TTE was performed revealing resolution of the pulmonary hypertension with normal PASP and normal size right chambers.
Discussion and Learning Points: Pulmonary hypertension (PH) always requires a rigorous evaluation to confirm the diagnosis and assess its aetiology. A thorough investigation of all possible causes of PH should be carried out to identify an underlying cause amenable to treatment. PH can lead to right ventricular disfunction which is associated with increased morbidity and overall mortality. Hyperthyroidism seems a possible cause of pulmonary hypertension, therefore it should be part of the aetiological investigation of suspected PH, as it is a treatable entity, and its cardiovascular manifestations may be completely reversible.

 DOI: 10.12890/2022_V9Sup1

1321 / #EV0110

CHARACTERIZATION OF PATIENTS' EARLY HOSPITALIZATION IN A HEART FAILURE CONSULTATION

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Background and Aims: Heart Failure (HF) affects ≥10% over 70 years old. After discharge, patients maintain a high risk of mortality and re-hospitalization. We intend to characterize patients with HF with reduced ejection fraction (EF) requiring early hospitalization following the first medical appointment.
Methods: Retrospective analysis of patient files from a HF consultation, over 12-month period.
Results: From a total of 66 (n) patients, 8 (12.12%) needed hospitalization in a period of 1-3 months. In that group, mean age was 80.8±4.9 years (higher than n); mostly men (62.5%). The most frequent aetiology was ischemic (35.5%), under investigation (25%), ischemic and valvular (12.5%) and ischemic and arrhythmogenic (12.5%). The New York Heart Association (NYHA) III class prevailed (75%). All patients had atrial fibrillation (AF), 75% chronic kidney disease (CKD), 50% previous infarction and 50% valvular disease. The EF was 38.3±5.6% (smaller than n) and the area of the left atrium was greater than that of n. 62.5% were medicated with ACEI/ARA, 37.5% with ARNI, 62.5% with beta-blocker, 25% with mineralocorticoid antagonist and 25% with SGLT2 inhibitor (lower percentage than n). 50% of patients maintained high diuretics doses ≥80 mg/day. Infection was the main cause for hospitalization (37.5%) followed by arrhythmias (25%).
Conclusions: 12.12% of patients needed hospitalization by decompensate HF. Those were predominantly male, older, had worse NYHA class, higher prevalence of ischemic aetiology, AF and CKD, non-optimized therapy and needed higher doses of diuretic. There is a greater impact of more advanced disease, infectious and arrhythmic complications on the fragile balance of these patients.

1354 / #EV0111

GENDER CHARACTERIZATION OF A HEART FAILURE CONSULTATION IN A DISTRICT HOSPITAL

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Background and Aims: Heart Failure (HF) is a global problem. Evidence shows that there are gender differences in the treatment and approach to HF. We intend to characterize the population of patients with reduced HF ejection fraction (EF) in a HF consultation, according to gender.
Methods: Retrospective analysis of patient files admitted in 12 months.
Results: Total of 66 patients, 23 (34.8%) women and 43 (65.15%) men. Women were older: 77.79±8.04 vs 72.59±10.45. There was a higher prevalence in the male vs female sample of: hypertension (83.8% vs 56.5%), dyslipidaemia (86% vs 73.9%), atrial fibrillation (65.1% vs 60.9%), coronary disease (53.5% vs 21.7), previous infarction (46.5% vs 21.7%) and diabetes (44.2% vs 39.1%). Valvular and chronic kidney disease were more prevalent in women (respectively 30.4% vs 23.3% and 47.8% vs 44.2%). The aetiology was under study/undetermined in 52.2% of the women and had an ischemic origin in 48.8% of the men. The NYHA class in female vs male sample was II 56.5% vs 46.6% and III 34.8% vs 41.9%. EF was similar in groups. ACEI/ARA, ARNI, Beta blockers and mineralocorticoid antagonists were prescribed in male vs female sample in 60.9% vs 44.19%, 44.19%vs 39.1%, 86% vs 95.7%, 67.4% vs 43.5% respectively. ISGLT2 were only prescribed in men, 11.6%. Females tolerated low doses. All patients were on diuretic, higher dosage in males.
Conclusions: Male patients have greater expression; more often have a clarified aetiology (ischemic) with more comorbidities, worse functional class and greater disease severity. It is also in this genre that we found the greatest optimization of medical therapy. These findings are in agreement with the literature.

1037 / #EV0112

DIZZINESS AND INSTABILITY AFTER CEREBRAL STROKE

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Case Description: We present a 58-year-old male with history of hypertension, dyslipidemia, smoker, deep vein thrombosis of the right leg and ischemic stroke one year ago. He is referred due to frequent falls, dizziness, feeling of tachycardia and thoracic discomfort. Physical examination highlighted peripheral hypoperfusion in lower limbs with livedo reticularis and gait instability. Blood analysis with blood count and liver, thyroid and kidney function were normal. Determination of antiphospholipid antibodies was weak positive for lupus-anticoagulant. Chest-radiography, EKG, Holter and ultrasonography of supra-aortic trunks were normal. Transthoracic echocardiogram was normal. The cranial MRI revealed nonspecific supratentorial white matter lesions, probable chronic vasculodegenerative character. Electroencephalogram showed mild cerebral electrical involvement of expression in left temporal areas in probable relation to known vascular lesions.
Clinical Hypothesis: We consider the following possibilities: postural orthostatic tachycardia síndrome (POTS) o dysautonomic síndrome related to antiphospholipid síndrome (APS), repetitive ischemic lacunar strokes and epilepsy.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: POTS is easily confused with recurrent lacunar strokes (especially if there are many cardioascular risk factors) or seizures. The abscense of seizures and the fact that the episodes ocurred in orthostatism led us towards this diagnosis. The presence of livedo reticularis, repeated episodes of thrombotic events and lipic anticoagulant above the normality limit pointed to a posible APS. The determination of antiphospholipid antibodies was confirmed 12 weeks later.
Discussion and Learning Points: Dysautonomic syndrome or POTS is exclusion diagnosis, so it is required a careful history. Antiphospholipid syndrome is one of the most common causes of acquired hypercoagulability. The lupus anticoagulant is the most correlated with thrombotic events.

2548 / #EV0113

HOW IS THE CARDIOVASCULAR PROFILE OF PATIENTS WITH ISCHEMIC HEART DISEASE IN INTERNAL MEDICINE?

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Background and Aims: To analyze cardiovascular risk factors in patients with ischemic heart disease admitted to Internal Medicine.
Methods: Descriptive and retrospective study of adult inmates (>18 years old) incorporated into a medical ward during a six-month period. We analyzed clinical variables of the selected cases using the statistical program SPSS.
Results: About the total number of cases analyzed, there was a predominance of ischemic events in women (55%) compared to 45% of men, and a greater prevalence in those over 65 years of age (90%) compared to 10% of those under 65 years of age. 65 years old. The mean age was 77 years. Regarding cardiovascular risk factors, their frequency is: i) high blood pressure (81%), ii) dyslipidemia (67%), iii) diabetes mellitus (60%), active smoking or ex-smoker (60%).
Conclusions: Ischemic heart disease is, within cardiovascular diseases, the main cause of death in Spain. Changes in lifestyle and control of cardiovascular risk factors are essential to prevent ischemic events. As we have seen, the most frequent factor is arterial hypertension, followed by dyslipidemia and diabetes mellitus. Fundamentally consider implementing programs aimed at modifying and promoting healthy lifestyles in the general population, as well as promoting interlevel collaboration to provide better control of cardiovascular risk factors.

2564 / #EV0114

ANALYSIS OF THE RELATIONSHIP BETWEEN CARDIOVASCULAR RISK FACTORS AND ISCHEMIC EVENTS IN AN INTERNAL MEDICINE UNIT

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Background and Aims: To analyze the cardiovascular risk factors in patients hospitalized for ischemic pathology in an Internal Medicine ward.
Methods: Descriptive and retrospective study of adult patients (>18 years old) admitted to an Internal Medicine ward during a six-month period. Clinical variables of the selected cases were analyzed using the statistical program SPSS.
Results: Those patients admitted to Internal Medicine who had presented an ischemic event (ischemic heart disease, cerebrovascular accident and chronic obliterating arteriopathy), with a mean age of 72 years and a predominance of women (59.82 %). The frequency per ischemic event was as follows: i) ischemic heart disease (45%), ii) cerebrovascular accident (44%), iii) chronic obliterating arteriopathy (11%). The most frequent event in patients over 65 years of age was cerebrovascular accident, and in those under 65 years of age it was ischemic heart disease. Among cardiovascular risk factors, 80% had high blood pressure, 60% diabetes mellitus, 58% dyslipidemia, and 49% were smokers or former smokers.
Conclusions: The main cause of mortality in our country is cardiovascular diseases, so the control of cardiovascular risk factors is essential to prevent their development. As we have seen, ischemic heart disease is the most common cardiovascular disease in our study, with a slightly higher percentage than cerebrovascular disease. Therefore, it is necessary to control lifestyle habits and cardiovascular risk factors in our patients to prevent ischemic events.

43 / #EV0115

FIXED THERAPY WITH ROSUVASTATIN 20 MG/EZETIMIBE IS USEFUL TO REDUCE LDL VALUES AND ACHIEVING THERAPEUTIC GOAL IN HIGH/VERY HIGH RISK PATIENTS

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Case Description: For patients at high/very high cardiovascular risk, it is mandatory to achieve low LDL levels. In clinical practice, only a part of treated subjects reaches LDL goal. Using a highly effective statin [rosuvastatin (R)] in fixed combination with

 DOI: 10.12890/2022_V9Sup1

ezetimibe (E) it can permit to achieve therapeutic goal compared to the use of others statins, associated or not with E.
Clinical Hypothesis: We wanted to evaluate, in the first 101 patients, at high/very high cardiovascular risk, consecutively afferent to our dedicated clinic to dyslipidemias, the results of mean LDL values and the achievement of therapeutic goal of LDL with fixed combination therapy R 20 mg and E 10 mg (R/E) compared to use of other statins, associated or not with E. All patients received treatment for at least twelve months and the last blood tests were no less than three months old.
Diagnostic Pathways: Of the 101 patients, 57 were female. Median age was 67.03±10.21 years. BMI was 27.20±4.24 kg/m^2. Average LDL values were 61.69±26.12 mg/dl. Fifteen patients were in secondary prevention. Fortythree patients, treated with E/R, showed mean LDL values of 53.21±16.05 mg/dl. Patients treated with other statins ±E, had average LDL values of 68.09±30.27 mg/dl. LDL target was reached on 84% patients treated with R/E therapy vs 80% of the remaining patients.
Discussion and Learning Points: Despite the limited number of patients, we can conclude that patients treated with the fixed therapy R/E, showed better mean LDL values and higher reached target of LDL than patients treated with other statins with or without E associated.

1150 / #EV0116

A POINT PREVALENCE STUDY TO ASSESS THE MANAGEMENT OF HEART FAILURE WITH REDUCED EJECTION FRACTION PATIENTS IN A UNIVERSITY TEACHING HOSPITAL

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Background and Aims: Mortality from heart failure has greatly reduced due to the pharmacological management of heart failure with reduced ejection fraction (HFrEF) (EF ≤ 40%). The aim of this study was to compare pharmacotherapy in patients with HFrEF with the ESC guidelines for the management of heart failure.
Methods: A point prevalence study of all inpatients in a 255 bedded university teaching hospital on a single day was performed. Data was obtained from medical notes, cardiac database and medication lists. HFrEF was defined as ejection fraction of ≤40%. Data was collected and documented in an excel sheet in a password protected computer to ensure confidentiality. Data was analyzed using descriptive statistics.
Results: The Male:Female Ratio was 4:1. The average (SD) age of patients with HFrEF is 80(8) years. Of 164 patients screened, 12% (n=20) had HFrEF. The average BNP (Median) was 1255 (624). 35% (n=7) had hypertension. 30% (n=6) had dyslipidemia. 20% (n=4) had diabetes mellitus type 2. The proportion of patients who were fully compliant with ESC guidelines was 40% (n=8). 100% of patients were on beta blockers. 75% (n=15) were on ACE-I or ARBs. 18% (n=2) had a contraindication to ACE inhibitor. 65% (n=13) were on a Mineralocorticoid Receptor Antagonist. No patient has a contraindication to an MRA. 40% (n=8) were on an SGLT2 Inhibitor. 13% (n=1) had a contraindication to SGLT2 inihibitor.
Conclusions: At the point of Echocardiogram, every patient with ejection fraction ≤40% should have a pathway to be referred to specialize heart failure services to ensure maximal pharmacological management.

477 / #EV0117

CLINICAL AND PROGRESSIVE FEATURES OF TAKAYASU'S DISEASE IN MALE PATIENT: A REVIEW OF TWO CASES

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Case Description: While Takayasu arteritis (TA) is known for its female tropism, the male is not spared. Despite the development of non-invasive diagnostic imaging and therapeutic means, the clinical and progressive characteristics of this vasculitis remain particular and mysterious, specially in male patient. Case of our two patients.
Clinical Hypothesis: First case: a young 34-year-old male, who was referred to us for therapeutic management of TA in its refractory form. The clinical history of TA began at the age of 27, marked by the development of hypertension initially labeled of undetermined origin. Second case: a 51-year-old man who had a stroke one year before being diagnosed with TA.
Diagnostic Pathways: First case: Three years later, in the occurrence of two episodes of lymphocytic meningitis, cerebral CT angiography was performed, allowing the diagnosis of TA. Despite the prescription of corticosteroids and immunosuppressive treatment in effective doses, the vasculitis remained active and required the introduction of targeted therapy. Second case: The latter was discovered following the performance of angio-CT scan for unexplained intense chest pain. Spectacular clinical course of TA in this patient, put on corticosteroids and immunosuppressive drugs earlier from diagnosis. In less than a year, the vasculitis developed radiologically, other inflammatory vascular lesions and aneurysm lesions requiring emergency surgery has appeared.
Discussion and Learning Points: TA is a progressive inflammatory vasculitis. Until this day, the real evaluation of its activity remains a challenge for us clinicians. The absence of potential markers indicating the systemic inflammation of this vasculitis, raises fears of its insidious evolution which can condition the vital prognosis.

 DOI: 10.12890/2022_V9Sup1

491 / #EV0118

A SUPERIOR VENA CAVA SYNDROME WHITHOUT THROMBOSIS REVEALING BEHÇET'S DISEASE : CASE REPORT

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Case Description: While vascular tropism in Behçet's disease (BD) is well known, the presence of superior vena cava syndrome (SVCS) by vasculopathy without thrombosis is very rare. In the literature, only three cases have been described; we report a case, which concerned our 39-year-old patient that was referred to us for exploration of a SVCS, in which this vascular involvement exceptionally observed.

Clinical Hypothesis: Clinically, he presented with cervicofacial edema, signs of venous hyperpressure and mucocutaneous manifestations, such as lesions of pseudo-folliculitis and oral aphthosis. Based on these clinical grounds and according to the international criteria of the BD of 2014, the diagnosis of angio-Behçet was made.

Diagnostic Pathways: The morphological exploration of this vascular emergency, surprised us, by the absence of thrombosis of the SVC on thoracic CT-angiography and the demonstration of a stenosing thickening of the wall of the SVC right above its connection with the right atrium by cardiac MRI. The initiation of treatment based on corticosteroids, and immunosuppressive drugs allowed a favorable course of the disease.

Discussion and Learning Points: Although it is exceptional, SVCS of non-thrombotic origin by vasculopathy does exist, and it can even be the revealing mode of certain conditions, case of Behçet's disease. One train can hide another.

1188 / #EV0119

PROGNOSIS OF PATIENTS UNDERGOING EXERCISE ECHOCARDIOGRAPHY IN THE CHEST PAIN UNIT

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Background and Aims: Treadmill exercise stress echocardiography (TSE) is a validated non-invasive technique for the evaluation of ischemia in patients with chest pain. We analyzed the medium-term prognosis of the patients evaluated in our Chest Pain Unit using this test.

Methods: Prospective single-center study with consecutive inclusion of patients referred from the emergency department to our chest pain unit who underwent TSE between 21st October 2019 to 18th September 2020. Follow-up was carried out until 31st March 2021. The aim of the study is a composite end-point of hospital admissions for chest pain with an ischemic profile and major cardiovascular and cerebrovascular adverse events (MACCE) outcomes.

Results: Clinical characteristics and outcomes are presented below (Table 1). A total of 238 patients were included. Main cardiovascular risk factors were smoking, hypertension and dyslipidemia. We followed these patients 12.35±2.83 months. One of the patients was lost. The primary composite endpoint occurred in 36 patients (15.18%), of which only 3 suffered from MACCE. Smoking was significantly correlated (p=0.029; 95% CI 1.12-8.29) with the primary composite endpoint.

Conclusions: Smoking is a predictor of hospital admissions for chest pain and the appearance of MACCE in patients who have been evaluated with TSE.

Characteristics of the Patients	N= 238
Median age (2 DS)-yr	57,7+/-12,02
Male sex – no/total (%)	148/238 (62,2)
Cardiovascular risk factors – no. (%)	
- Smoking - no/total (%)	164/238 (68,9)
- Hypertension - no/total (%)	127/238 (53,4)
- Dyslipidemia - no/total (%)	131/238 (55)
- Diabetes mellitus- no/total (%)	52/238 (21,8)

#EV0119 Table 1.

1276 / #EV0120

WHAT GUIDELINES DIDN'T BELIEVE AND EXERCISE ELECTROCARDIOGRAM DEMONSTRATED

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Case Description: This is a 36-years-old woman, previously healthy without known cardiovascular risk factors, with family history of early coronary artery disease in an uncle with 40 years old. She consults in the emergency department because of a history of seven days of oppressive chest pain that initially started with moderate exertion but progressively appeared with less exertion until she had a last episode which started at rest.

Clinical Hypothesis: At first, this symptoms were catalogued as anxiety.

Diagnostic Pathways: A physical examination showed no pathological findings. Initial complementary exams where made, where a rest electrocardiogram was described as normal; chest X-Ray and emergency department blood tests showed no anomalies, with two determinations of high sensitivity troponin T being 17.8 and 22.3 ng/l. Even though this patient had a low pretest probability of coronary artery disease (CAD), we decided

DOI: 10.12890/2022_V9Sup1

that she would be tested with an exercise electrocardiogram and echocardiogram. Echocardiogram didn't show any anomaly at rest, while exercise ECG had a clinical and electrical positive response in addition to severe induced ischemia in apical, septal and lateral regions in exercise echocardiogram during peak stress. Coronary angiography showed a severe proximal left anterior descendent lesion. Surgery was performed, with non-adverse perioperative outcomes and good evolution during her in-hospital stay, being discharged the seventh day postoperative with medical treatment. Discussion and Learning Points: In conclusion, we still should consider this test at first-line to evaluate chest pain despite the relegated use in the latest guidelines of chronic coronary syndromes. Besides, new classification of pretest probability of CAD should be reviewed.

2083 / #EV0121

PREVALENCE OF CARDIOVASCULAR RISK FACTORS IN PATIENTS ADMITTED TO INTERNAL MEDICINE.

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Background and Aims: Description of the main cardiovascular risk factors (CVRF) prevalence of hospitalized patients in Internal Medicine. We also wanted to know if exist relationship between cardiovascular risk factors and the main cause of admission.
Methods: Descriptive and retrospective review of patients admitted from 09/01/2019 to 11/30/2019, collecting data from electronic medical record. The main CVRF analyze were: hypertension, diabetes mellitus, dyslipidemia and active smoking. Causes of admission were classified as respiratory, cardiac, digestive, neurological, rheumatological, endocrinological, oncological, infectious or nephrological disease.
Results: 832 patients were admitted, 54.3% men and 45.6% women, predominantly older than 60 years (89.5%). Age average was 80.4 years. The prevalence of the CVRF studied was: 67.7% hypertension, 33.7% diabetes mellitus, 42.9% dyslipidemia, and 12.7% active smoking. The most frequent reasons for admission were infectious (22.7%), respiratory (19.8%), cardiological (19%), digestive (13.8%), oncological (9.9%), neurological (6 %), nephrological (5.5%), rheumatological (2.5%) and endocrine (2%). A statistically significant result ($p<0.001$) was obtained for the prevalence of arterial hypertension among those admitted for cardiac disease (79.9%). The history of diabetes mellitus reach statistical significance among those admitted because endocrinological disease, in whom 70.6% were diabetic ($p=0.005$).
Conclusions: The prevalence of one or more cardiovascular risk factors is high among patients admitted to our Internal Medicine service. The internist should take advantage of the patient's hospitalization and carry out a multifactorial approach to CVRF due to, although it has not been analyzed, its poor control could significantly condition the number of admissions.

1713 / #EV0122

AN UNEXPLAINED CASE OF BRADYCARDIA IN A PATIENT IN A PERMANENTLY VEGETATIVE STATE

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Case Description: A 42-year-old man in a permanent vegetative state, was admitted to our Internal Medicine clinic because of fever. Recently, he had been discharged with tracheostomy due to COVID-19 infection from the Intensive Care Unit. Bacteremia from *Pseudomonas aeruginosa* XDR was now present and he was treated with proper antibiotics. While on improvement, the patient experienced a hypoperfusion shock. Causes were investigated and excluded. Plus, antibiotics were withdrawn, in case of anaphylaxis. Two days later, while on noradrenaline, the patient manifested sinus bradycardia (35 bpm).
Clinical Hypothesis: Our clinical hypothesis regarded the bradycardia as symptomatic. Although the state of the patient was not indicative, hypotension was present along with alterations in arousal. Our differential diagnosis of the etiology included medication, central nervous system dysfunction, infections and primary cardiologic cause.
Diagnostic Pathways: The patient was further investigated with Holter monitoring that proved sinus bradycardia and ventricular pauses (of 3 sec), consistent with sinus node dysfunction. Electrolytes and TSH were normal. Echocardiography and brain computed tomography were unremarkable. No apneic syndrome was noted. Cimetidine, administered after the shock, was discontinued. Isoprenaline was initiated with a satisfying response. Because of persistent bacteremia, the implantation of a permanent pacemaker was improper. The patient was discharged with a normal heart rate.
Discussion and Learning Points: This unusual case of intermittent bradycardia in a patient with no structural heart disease could be explained by long COVID-19 syndrome or cimetidine short-termed administration effects. Could intracranial hypertension play a role although without fulfilling Cushing's triad? This report highlights the need for better understanding of such entities.

 DOI: 10.12890/2022_V9Sup1

328 / #EV0123

INFLAMMATORY BIOMARKERS AND PRECLINICAL LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN PATIENTS WITH TYPE 2 DIABETES WITHOUT SYMPTOMATIC CARDIOVASCULAR DISEASES

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Background and Aims: Diabetic cardiomyopathy is initiated with asymptomatic left ventricular diastolic dysfunction (LVDD). The aim of study is to assess the relationship between the inflammation markers level and parameters of left ventricular diastolic functions in individuals with type 2 diabetes (T2D) without overt cardiovascular diseases.

Methods: The study analyzed data from 120 patients divided into two groups matched on age: patients with T2D (n=67) and control (n=53). All patients underwent echocardiography including tissue Doppler imaging, the levels of inflammation markers (C-reactive protein (CRP), fibrinogen, white blood cells count, interleukin-6 (IL-6) level) were assessed.

Results: The significant increase in the level of CRP was noted in the T2D vs. control group: 6.24 (2.2; 6.2) mg/l and 2.69 (1.3; 2.9) mg/l, respectively ($p<0.001$). Fibrinogen and IL-6 levels did not differ significantly between groups. In both groups, diastolic myocardial function parameters differed significantly: E/A ratio in subjects with T2D (0.83 (0.7; 0.9) vs. control group (1.053 (0.8; 1.25), $p<0.001$; E/E′ratio (7.438 (6.01; 8.53) vs. 6.47 (5.37;7.34) respectively, $p<0.001$; in IVRT - 87.83 (82.5; 93.5) ms vs. 79 (70.0; 88.0) ms, respectively ($p<0.001$). There is a direct correlation between the level of CRP and diastolic function indicators (E/A ($r=-0.39$, $p<0.001$), IVRT ($r=0.40$, $p<0.001$), DT ($r=0.43$, $p<0.001$), E′ ($r=-0.21$, $p<0.001$), E′/A′ ($r=-0.28$, $p<0.001$), and E/E′ ($r=0.30$, $p<0.001$).

Conclusions: A higher level of CRP is associated with more severe LVDD. These data support a possible role for inflammation in genesis of diabetic cardiomyopathy.

186 / #EV0124

POTENTIAL RISKS OF SUBSTITUTING ESTIMATED GLOMERULAR FILTRATION RATE FOR ESTIMATED CREATININE CLEARANCE FOR DOSING OF DIRECT ORAL ANTICOAGULANTS IN ATRIAL FIBRILLATION AND CHRONIC KIDNEY DISEASE

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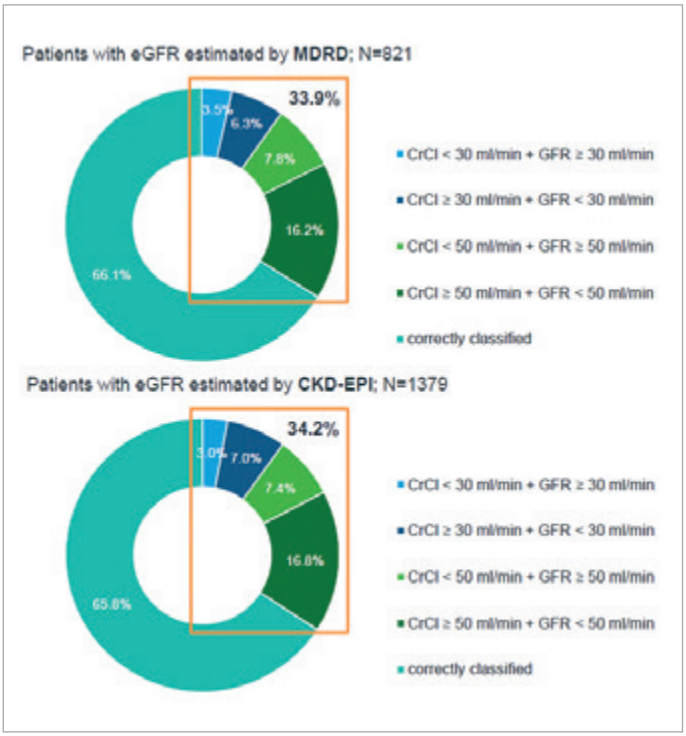
Background and Aims: The aim of this study was to compare estimated glomerular filtration rate and estimated creatinine clearance in a large group of patients with atrial fibrillation and chronic kidney disease.

Methods: Physicians from 423 institutions in the Czech Republic were asked to enroll 5 consecutive outpatients with atrial fibrillation (AF) treated by a DOAC with stage 3 chronic kidney disease and glomerular filtration rate (eGFR) 30-59 ml/min estimated by MDRD or CKD EPI equations into the registry and CrCl calculated by the Cockroft-Gault formula. Results of CrCl and eGFR obtained in individual patients were compared and statistically analyzed using two-sample t-test.

Results: We enrolled 2115 patients. Mean CrCl was 47.43 ml/min, mean eGFR by MDRD and CKD-EPI was 43.88 and 43.53 ml/min ($P<0.001$ for both). Mean difference between CrCl and eGFR in individual patients calculated by MDRD and CKD-EPI was 8.8 and 9.41 ml/min. A difference beween CrCl and eGFR >10 ml/min was found in 31.5% and 34.8% patients when using MDRD and CKD-EPI formulas. At CrCl above or below 50 ml/min, 24.0% and 24.2% were misclassified when using eGFR calculated by MDRD and CKD-EPI. At CrCl above or below 30 ml/min, 9.8% (MDRD) and 10.0% (CKD-EPI) patients were misclassified (Figure 1).

Conclusions: When eGFR estimated by MDRD or CKD-EPI is used to assess renal function and guide DOAC dosing instead of CrCl calculated by the Cockroft-Gault formula in patients with AF and stage 3 CKD, more than a third of patients is misclassified and wrong DOAC dose can be recommended.

 DOI: 10.12890/2022_V9Sup1



#EV0124 Figure 1.

2234 / #EV0125

ACUTE HEART FAILURE – THE IMPORTANCE OF A COMPLETE ETIOLOGICAL STUDY

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Case Description: Man, 66 years old, clinical frailty score of 3. Former smoker with multiple cardiovascular risk factors, no history of alcohol abuse. Presented to the emergency department with progressive exertional dyspnea and orthopnea. No signs of infection or angina. EKG in sinus rhythm, without conduction or repolarization abnormalities. Blood test without anemia, normal kidney function, C reactive protein and high sensitivity troponin levels; brain natriuretic peptide of 880 pg/mL. Chest x-ray with bilateral pleural effusion.

Clinical Hypothesis: his former smoker with multiple cardiovascular risk factors was admitted with de novo heart failure. A complete diagnostic workup would be important to address ethology and treatment.

Diagnostic Pathways: A transthoracic echocardiography revealed dilated cardiomyopathy with biventricular dysfunction (left ventricular ejection fraction of 10%). Cardiac angiography revealed no significant abnormalities, blood tests revealed subclinical hyperthyroidism with a thyroid Stimulant Hormone (TSH) level of 0.05UI/mL and negative thyrotropin-receptor antibody. Thyroid echography showed a multinodular goiter with a hyperfunction thyroid nodule on radionuclide scanning. Prognostic modifier drugs were initiated and titrated along with methimazole. The patient was treated with radioative iodine and left ventricular dilation and function normalized.

Discussion and Learning Points: Hyperthyroidism, even if subclinical, can lead to dilated cardiomyopathy. In the setting of de novo heart failure a standardized diagnostic and treatment workup is mandatory ameliorate prognosis.

2672 / #EV0126

SEVERE AORTIC STENOSIS AND TRANSTHYRETIN CARDIAC AMYLOIDOSIS – TWO ENTITIES THAT FREQUENTLY COEXIST

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Case Description: Male, 90 years old, clinical frailty score of 5. Past medical history of severe aortic stenosis (AS), atrial fibrillation and bilateral carpal tunnel syndrome.Presented to the emergency room due to dyspnoea at rest.Physical examination with signs of heart failure, blood pressure of 115/70 mmHg, blood gases without hypoxemia, blood tests without anemia or signs of infection. Brain natriuretic peptide type B >1000 pg/mL and high sensitive troponin of 126 ng/L with no curve suggestive of acute coronary syndrome. EKG in atrial fibrillation and low voltage QRS. Chest x-ray with right pleural effusion. During hospital stay, transthoracic echocardiogram showed small pericardial effusion, left ventricular hypertrophy (LVH) (IM 253.5g/m^2; RWT 0.76), biauricular dilation, severe AS (medium gradient 47mmHg, DVI 0.12), no mitral valve changes, left ventricle ejection fraction (LVEF) of 40% with altered longitudinal strain with apico-basal gradient and preserved right systolic function with pulmonary hypertension.

Clinical Hypothesis: Conjugating clinical and echocardiographic features (age, sex, rhythm disturbances, aortic stenosis, bilateral carpal tunnel, LVH, longitudinal strain pattern) we hypothesized that the patient could have coexisting severe AS and cardiac amyloidosis.

Diagnostic Pathways: Exclusion of light chain amyloidosis, a bone scintigraphy with HMDP-Tc-99m with Perugini score of 3, compatible with transthyretin cardiac amyloidosis (ATTR).

Discussion and Learning Points: Wild type ATTR is underdiagnosed. About 15% of patients with severe AS have ATTR. Diagnosis is important due to management/treatment particularities. Presence of ATTR does not contraindicate aortic valve replacement in patients with severe AS and can be a cause of low-flow, low-gradient AS. Patients should be evaluated by a Heart Team to receive the best orientation possible.

 DOI: 10.12890/2022_V9Sup1

2718 / #EV0127

HYPERTENSIVE EMERGENCY WITH MULTI-ORGAN DYSFUNCTION

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Case Description: 41-year-old black female, longstanding untreated hypertension (HT) with target-organ damage (left ventricular hypertrophy (LVH) described in a previous ECG). She presents with headaches, visual changes, disorientation, abdominal pain, and vomiting. Objectively drowsy and hypertensive (242/169 mmHg).

Clinical Hypothesis: Stroke Acute coronary syndrome Eclampsia

Diagnostic Pathways: Analytical study with microangiopathic hemolytic anemia, severe renal dysfunction (creatinine 9.66mg/dL), and elevation of markers of myocardial necrosis. Urinalysis with proteinuria and albumin/creatinine ratio >300 mg/g. Beta HCG negative. Electrocardiogram with LVH criteria. Computed axial tomography (CT) of the brain suggesting posterior reversible encephalopathy syndrome. Ophthalmologic examination with hypertensive vasculopathy. An echocardiogram showed severe concentric LVH without other alterations. Cervical and transcranial Doppler echocardiography without stenoses of hemodynamic significance. Angio-CT without alterations.

Discussion and Learning Points: The global prevalence of hypertension is high and is one of the main cardiovascular risk factors. In the black race, hypertension is more prevalent and appears at earlier ages, usually presenting with more severe conditions. In this case, we have a young black woman with long-standing untreated hypertension who presents with a picture of hypertensive emergency with neurological, ocular, cardiovascular, and renal dysfunction. Labetalol infusion and kidney replacement therapy (dialysis) were started, with an improvement of the blood pressure profile allowing a switch to calcium channel blocker (CCB). Initially, clonidine was required but with a stable tension profile after association of antihypertensive therapy (CCB + beta-blocker + diuretic) and maintenance of dialysis. A study of secondary causes of hypertension was carried out, which proved negative. This is an example of the importance of treatment and follow-up in hypertensive patients.

411 / #EV0128

PLURIPATOLOGICAL PATIENTS ADMITTED FOR ACUTE HEART FAILURE DURING COVID-19 PANDEMIC: A DESCRIPTIVE STUDY OF THEIR CHARACTERISTICS AND TREATMENT CHOICES - PROFUND-IC REGISTRY

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Background and Aims: Describing the characteristics of the patients admitted for Acute Heart Failure (AHF) and analysing the treatments and procedures they required during their stay.

Methods: This is a descriptive, observational, prospective and multicentric study. It includes patients admitted for AHF as main diagnosis (defined by clinical and ultrasound findings along with a NT-ProBNP >300 pg/ml) and at least two categories that define them as pluripatological. These patients were admitted to Internal Medicine and Cardiology wards in different hospitals in Spain from October 2020 to June 2021. Clinical variables, functionality and comorbidity scores were used during a follow up of 30 days.

Results: A total of 128 patients were included, with a mean age of 80.5 years, 51.6% women. Mean PROFUND index was 5.26. Intrahospital mortality registered was 8.6% at the beginning of the follow up and 20.3% at the end. The majority of patients had preserved left ventricular ejection fraction and high scores in fragility index such as Short Physical Performance Battery, which mean was 3.06 at admittance. According to treatment, in the first 48h of admittance, 89.1% required diuretics (81.3% furosemide). Plus, 50% were treated with ACEI, ARB o Sacubitril/Valsartan. Betablockers were continued in 5.,8% of patients and 21,1% of patients were treated with antialdosteronic drugs. SGLT-2 inhibitors were used only in 6.3%.

Conclusions: The majority of AHF patients associated big comorbidity that affected their prognosis. About treatment, the management of most patients when they were admitted was not optimal and the most recent evidence was not always implemented.

 DOI: 10.12890/2022_V9Sup1

725 / #EV0129

LONG TERM CLINICAL SIGNIFICANCE OF VENOUS RETURN PARAMETERS ASSESSED BY ROUTINE ECHOCARDIOGRAPHY

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Background and Aims: Transthoracic echocardiography is widely used in internal medicine for contractility (ejection fraction) and relaxation (diastolic dysfunction) assessment. Venous return has received little attention, but currently is in the area of interest due to atrial fibrillation recurrence. As prognostic significance of intracardiac hemodynamics is studied insufficiently, the objective of the study was to obtain relationship between EchoCG results and medical conditions developed later in life.

Methods: 78 patients underwent transthoracic EchoCG (Acuson Sequoia 512) provided by single doctor in 1999. Besides mandatory measurements velocity in superior caval vein, left superior pulmonary vein and medial hepatic veins were obtained. All in-patients had different benign gastro-biliary pathology and were in sinus rhythm.

Results: Medical records in 2014-2021 were available for 6/15 males aged 40-58 years in 1999 and 22/49 males and 5/14 females aged 16-32 years. In older group only 1 patient had gastro-biliary problems, and all patients despite normal body mass index had developed cardiovascular pathology. In 4/6 cases diastolic function (E/A) in right ventricle was impaired. Prominent reversal flow in pulmonary veins was detected in patient aged 52 with STEMI in 2014, 2020, 2021. Patient with low hepatic vein velocity had developed varicose veins in 2014. In younger group only 36.3% had gastro-biliary complains. Prominent reversal flow in superior caval vein predicted arterial hypertension and cerebral circulatory problems, low flow rate in hepatic veins – varicose veins.

Conclusions: Atrial inflow pattern and diastolic function in routine EchoCG may be signs for pathology development 15-20 years later.

1726 / #EV0130

TEARS IN HAZE – TIME CAN BREAK YOUR HEART

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Case Description: A 54-year-old man was admitted with a new-onset anginous chest pain. Of note, the patient confessed a present emotional distress due to the grief experience with his sisters' recent death. At presentation he was hemodynamically stable with no remarkable findings at the physical exam.

Clinical Hypothesis: Most likely: acute coronary syndrome (ACS). Other: psychogenic disorder.

Diagnostic Pathways: The electrocardiogram was normal. The laboratory workup revealed an elevated troponin I (4.2 ug/L). The transthoracic echocardiogram an apical septal and lateral left ventricular hypokinesia. ACS due to myocardial infarction without ST-elevation was admitted. A catheterization was performed, revealing a left anterior descendent (LAD) artery with a diffuse stricture pattern without atherosclerotic plaques nor dissection that didn't change after intracoronary nitrates administration, suggesting a spontaneous intramural LAD hematoma. Spontaneous coronary artery dissection (SCAD) was admitted, and a single antiplatelet therapy was initiated.

Discussion and Learning Points: SCAD is a non-traumatic and non-iatrogenic coronary arterial wall rupture. SCAD is increasingly recognized as an important cause of MI (mostly in young females) but its true incidence is underestimated. SCAD's pathogenesis is unknown, with inside-in and inside-out hypothesis proposed as possible mechanisms. Fibromuscular dysplasia is the most common abnormality and physical/emotional distress the most common precipitant factor. Catheterization remains the gold-standard diagnosis modality, with LAD being the most common dissected artery. The role of other diagnostic modalities (CCTA and CMR) is unsure. Conservative therapy remains the first-line therapy, with doubts regarding which the best medical therapy. SCAD raises doubts on its diagnosis and treatment, which urges the need to better understand this nebulous entity.

1444 / #EV0131

SAMPLE OF THE FREQUENCY OF THE TYPES OF TREATMENT INSTITUTED IN CORONARY SYNDROMES AT HOSPITAL NAVAL MARCILIO DIAS BETWEEN 2009 AND 2019

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Background and Aims: Coronary artery disease (CAD) is the main cause of death in Brazil and worldwide. There are basically three therapeutic possibilities: isolated clinical treatment, or associated with percutaneous angioplasty or myocardial revascularization. So far there is no information on these data from patients admitted to the Hospital Naval Marcílio Dias (HNMD). The objective is analyze the frequency of types of clinical outcomes of CAD (stable angina, unstable angina, infarction without or with supra) and the different types of treatment (clinical or reperfusion) in a sample of patients admitted at HNMD between 2009 and 2019.

Methods: Data were collected by computerized medical records from patients hospitalized for CAD between 2009-2019. A sampling of 20 patients per year was carried out, in alphabetical

 DOI: 10.12890/2022_V9Sup1

order. Data were collected on the epidemiological profile(age, sex, comorbidities), clinical presentation of CAD at admission, treatment instituted (clinical or reperfusion) and medications at hospital discharge, as well as vital status until June 31 2020. The frequencies of response options and clinical characteristics were calculated, and their distributions compared.
Results: Among 135 patients (68 excluded), stable angina was the most frequent presentation, followed by unstable angina, infarction with ST elevation and without ST elevation, 40.4%, 22.8%, 19 .8% and 16.9%, respectively. The preferred treatment was coronary angioplasty, followed by revascularization surgery, and finally clinical treatment alone (47.7%, 30.1% and 22.1%, respectively).
Conclusions: There is a higher frequency of stable angina at HNMD, and the most chosen treatment was coronary angioplasty.

190 / #EV0132

PROGNOSTIC POWER OF THE MAGGIC, MEESSI-AHF AND PROFUND SCORES AS PREDICTORS OF MORTALITY AND READMISSION IN HEART FAILURE

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Background and Aims: To determine the prognostic capacity of the scores PROFUND, MAGGIC and MEESSI-AHF for mortality and readmission before 30 days after discharge in patients admitted with heart failure.
Methods: Prospective observational multicenter study involving patients admitted with heart failure as the main diagnosis and introduced sequentially from September 2020 to May 2021.
Results: Of the 128 subjects analyzed, the PROFUND score was collected in all of them, MEESSI-AHF in 110 and MAGGIC in 120. ROC curves were used, considering the following intervals for predictive power: 0.5-0.65 poor, 0.65-0.8 regular; and 0.8-1 good. In the 30-day mortality the MEESSI-AHF and MAGGIC showed regular predictive power (area under the curve 0.731 with p <0.001 and 0.717 with p <0.001 respectively); whereas PROFUND showed a poor predictive power (area under the curve of 0.636 with p <0.05). In the case of 30 days readmission a poor predictive power of the MEESSI-AHF is observed in a statistically significant way (area under the curve 0.572 with p <0.5), while MAGIC and the PROFUND did not show statistical significance (area under the curve of 0.538 with p> 0.5 and 0.606 with p> 0.1 respectively).
Conclusions: The MEESSI-AHF, MAGGIC and PROFUND scores significantly showed a regular or poor predictive power for 30 days mortality and a poor or null predictive power for 30 days readmission in our sample. Studies with a larger sample are necessary to evaluate the predictive power of these scores in mortality and the possibility of readmission before 30 days after discharge in patients admitted for heart failure.

576 / #EV0133

RELATIONSHIP OF CIRCULATING ANGPTL3 AND ANGPTL4 WITH ET-1-DEPENDENT VASOCONSTRICTOR TONE IN DIFFERENT PHENOTYPES OF HUMAN OBESITY

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Background and Aims: Obesity is associated with increased burden of cardiovascular disease, especially when accompanied by abnormalities of lipid and glucose metabolism. Angiopoietin-like (ANGPTL)3 and ANGPTL4 are metabolic regulators, whose upregulation is associated with dyslipidemia, insulin resistance and atherosclerosis. We analyzed changes in circulating ANGPTL3 and ANGPTL4 in obese patients with different metabolic phenotypes and their relationship with endothelin (ET)-1-dependent vasoconstrictor tone.
Methods: Obese patients were classified as metabolically healthy or unhealthy in the absence or presence, respectively, of any of the metabolic abnormalities of the metabolic syndrome. Circulating ANGPTL3 and ANGPTL4 were measured by Luminex assay. ET-1-dependent vasoconstrictor tone was assessed as forearm blood flow response to selective blockade of ETA receptors by BQ-123.
Results: Compared to lean subjects (n=42), circulating ANGPTL3 was elevated (>0.001) in metabolically unhealthy obesity (MUO; n=87), but not in metabolically healthy obesity (MHO; n=48, P>0.05); circulating ANGPTL4, by contrast, was similarly increased in both obese subgroups compared to lean subjects (P<0.05). The vasodilator response to blockade of ETA receptors was increased in both MHO and MUO compared to lean subjects (P<0.001), without significant difference between the 2 obese subgroups. In the whole population, a significant linear relationship (P=0.02) was observed between circulating ANGPTL4 and the vasodilator response to BQ-123, whereas no linear association (P=0.29) was found with ANGPTL3.
Conclusions: Circulating concentrations of ANGPTL3 and ANGPTL4 undergo variable changes in obese patients with different metabolic phenotypes. The obesity-related changes in ANGPTL4 are linked to increased ETA-dependent vasoconstrictor tone, probably due to a common pathophysiological background.

 DOI: 10.12890/2022_V9Sup1

2047 / #EV0134

PULMONARY EMBOLISM AFTER MILD COVID-19 INFECTION

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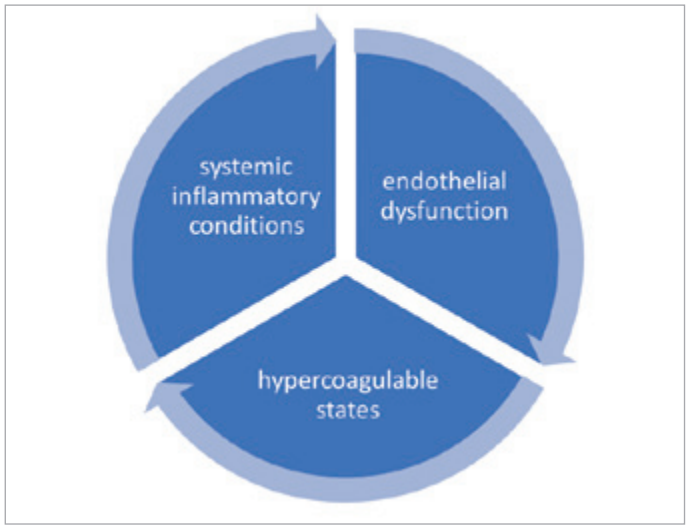
Case Description: COVID-19 infected patients have an increased prevalence of pulmonary embolism (PTE). Most studies have analyzed PTE in hospitalized patients with severe and moderate pulmonary symptoms. We describe 2 cases of PTE in less serious COVID 19 infections treated at home. Case 1: A 24-year-old male patient overcame COVID-19 in December, 2020 with mild symptoms. He was vaccinated with mRNA twice in the beginning of 2021. After 2.5 months he had a fever 3 days, during which a pulmonary embolism was detected. CT angiography showed PTE in the segmental branches of the lower left lobe, recanalized, of an older date, and pleural effusion on the right side. CRP was 216 mg/l (ref <5) and D-dimer 0.6 (ref <0.5). The patient had left DVT as well. Case 2: A 40-year-old male patient overcame COVID-19 in April 2021 with extreme exhaustion and loss of smell, he had to lay down a lot. He was taking acetylsalicylic acid 100 mg daily. Later he felt fatigued during efforts, with occasional cough. In May 2021 he had urachus cyst surgery under general anesthesia. He was receiving ciprofloxacin and after 5 days he started coughing up blood with chest pain. CT angiography revealed right-sided pulmonary embolism with pulmonary infarction and pericardial effusion. CRP was 146 mg/l and D-dimer 1.41. In both patients cancer and thrombophilia were excluded. They were treated with antibiotics and NOAC.
Clinical Hypothesis: Susceptibility to pulmonary embolism persists few months after mild infection with COVID-19.
Diagnostic Pathways: Clinical suspicion is essential.
Discussion and Learning Points: Subsequent onset of PTE should be suspected after treatment of milder forms of COVID-19.



#EV0134 Figure 1.

2533 / #EV0135

HEART FAILIURE AND IT'S NUMEROUS ETIOLOGIES: A CASE REPORT

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Case Description: Male, 38-years-old, alcohol intake 1600 grams/week for 22 years and lived on a high Chagas disease incidence territory, comes to consult three weeks after initiating NYHA IV heart failure (HF). Had flu-like symptoms with no COVID-19 testing during the pandemic 3 weeks and usage of thermogenic drugs 5 days before first symptoms. He first sought emergency service, where increased cardiothoracic ratio on radiography and reduced ejection fraction (EF) on transthoracic echocardiogram (ECHO) 31% (Table 1) where noted and started treatment for HF. On initial consultation in secondary care: NYHA II, daily usage spironolactone 75 mg, bisoprolol 2.5 mg, furosemide 40 mg and sacubitril/valsartan 97/103 mg twice, physical examination (PE) shown on Table 1. Choice was made for drug optimization, cardiac resonance (cMRI) and serial ECHOS (Table 1). 2 years after, patient showed improvement on ECHOS, has normal PE, NYHA I, on sacubitril/valsartan monotherapy, but is still drinking, so it's not foreseeable when he'll be waived from medications.
Clinical Hypothesis: Drug, alcohol or post viral cardiomyopathy, Chagas disease.
Diagnostic Pathways: Given the patient's history, Chagas serology and ELISA negativity, cMRI with no fibrosis or enhancements, it's feasible to assume multi-factor acute HF, resulting from thermogenic, alcohol and post-viral aggression combined.
Discussion and Learning Points: Case presented is an example of how history and complementary exams should be assessed together, and sometimes multiple etiologies can be responsible for illness. Also interesting is the choice of sacubitril/valsartan, given its high price, was maintained because clinical response and treatment adherence were obtained. Now, with normalized EF, discussions regarding shifting to more accessible medication are ongoing with patient.

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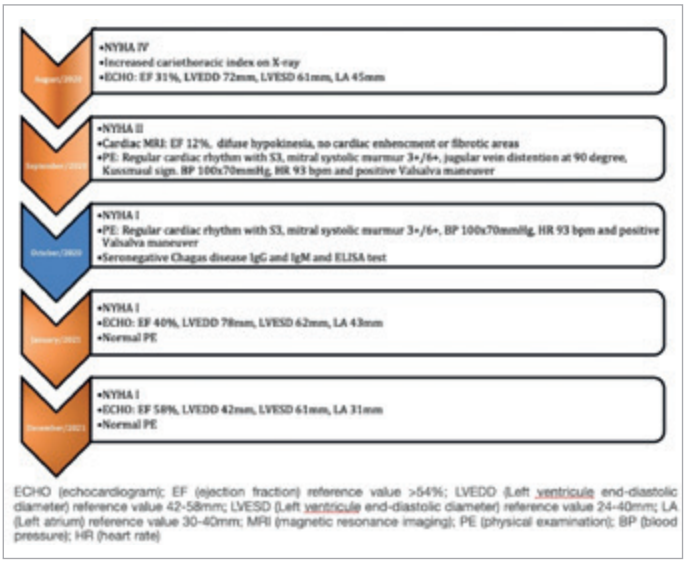

#EV0135 Table 1.

84 / #EV0136

ILLUSTRATION OF AN AUTOMATED DETECTION PLATFORM FOR SITUATIONS AT RISK OF HEART FAILURE DECOMPENSATION WITH THE FIRST ELDERLY PATIENT INCLUDED.

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Case Description: Telemedicine can help in the management of patients suffering from chronic pathologies, particularly elderly patients with heart failure.

Clinical Hypothesis: We experimented with the e-platform MyPredi - dedicated to the automated, intelligent detection of situations at risk of heart failure - for the first elderly patient included in the GER-e-TEC study.

Diagnostic Pathways: Mean blood pressure was 104.70mmHg. The mean heart rate was 72.9 bpm. Mean oxygen saturation was 94.2%. Mean activity was 751.6 steps per day. Mean sleep per day was 455 min. Mean light sleep was 81.8 minutes. Mean deep sleep was 373.2min. The mean VAS (visual analogue scale) was 1.4. The mean EVS (simple verbal scale) was 0.7. The weight was 109.7 kg. The mean number of stools was 0.6 stools per day. The mean temperature was 36.6°C. Out of 9 bedrest questionnaires, 2 (22.2%) had a positive response. The telemedicine solution has thus collected 3,552 measurements for the patient throughout her hospitalization, with an average of 237 per day. The telemedicine solution issued 13 alerts for the heart failure risk during her stay. In terms of sensitivity, the results are 100% and in terms of positive predictive value.

Discussion and Learning Points: The present study demonstrates the importance of the technological choices, tools, and solutions developed and adopted in MyPredi to monitor this risk.The fluidity of communications between nurses and doctors is improved. This telemedicine solution is a complementary tool for caregivers in the improvement and monitoring of the elderly patient.

384 / #EV1317

SEXUAL DISTURBANCE IN HYPERTENSIVE WOMEN: A REAL UNDIAGNOSED PROBLEM.

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Background and Aims: Female Sexual Dysfunction (FSD) is undiagnosed in general practice for several reasons (cultural ones). Hypertension (HTN) might have a main role in FSD development. It´s likely that diagnosis of FSD might be underated in society. To analyze FSD prevalence in hypertensive women in Internal Medicine consultation, comparing them to the group control.

Methods: An analytical study was carried out in childbearing age women at Elvas Hospital (Portugal)during a year period.Our teamwork used the Female Sexual Function Index (FSFI) to assess six aspects of women's intimacy. All patients who were under pharmacotherapy side effect as well as those peri-menopausal and pregnant were rejected. Data showed statistical significance p <0.005.

Results: There were 182 patients,91 hypertensive women and their clinical controls. FSD prevalence in hypertensive women was 62% compared to 38% in non-hypertensive.It was perceived a statistically significant association between FSD and HT (95% CI:1.09 to 5.2; p=0.01 OR=2.30). There was a significant difference in age between both groups (HTN 42 years, not HTN 42.2 years). No significant differences in items such as arousal, orgasm and lubrication were described. It was a significant match between HTN and FSD (p=0.008). There was a strong relationship between several antihypertensive medication and FSD. Beta-blockers and diuretics were related more often to FSD.

Conclusions: FSD prevalence was higher in hypertensive women, a 2.40 fold risk higher than controls. HTN long-standing, several anti-hypertensive medication were strongly correlated to FSD. It´s essential to improve medical awareness and understanding that enables the right approach, often hard to achive due to misunderstanding and cultural issues.

 DOI: 10.12890/2022_V9Sup1

AS03. CEREBROVASCULAR AND NEUROLOGIC DISEASES

1424 / #EV0137

MENINGIOMA PREDISPOSING VENOUS SINUS THROMBOSIS

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Case Description: A 35-year-old woman, oral contraceptive user, with no previous comorbidities, presented a sudden episode of severe headache and visual blurring. Cranial angiotomography (CT angiography) showed suggestive image of thrombosis of the right transverse venous sinus (TVS) and papilloedema was found in fundoscopy. It was started enoxaparin anticoagulation, with significant symtoms improvement. During complementary diagnosis, a brain angioresonance (MRI angiography) showed right parietoccipital meningioma measuring 2.0x1.8x1.8cm, exerting extrinsic compression on the TVS in the same region of the image suggestive of thrombus. Neurosurgery service raised hypothesis of meningioma simulating venous sinus thrombosis by compression, however the patient had a good response to anticoagulation, substitute treatment for dabigatran 300 mg/day, an oral anticoagulant. After six months of treatment medication was suspended and, three weeks later, the patient again had the same neurological changes, with a new venous sinus thrombosis in the TVS, raising the hypothesis of meningioma predisposing thrombus.

Clinical Hypothesis: Stroke, TSV, meningioma, idiopathic intracranial hypertension

Diagnostic Pathways: Cranial RMI angiography, cranial CT angiography, fundoscopy, lumbar puncture

Discussion and Learning Points: Meningioma is a benign tumor that presents a conservative proposal depending on the size, location and related clinical manifestations. They are usually asymptomatic and found incidentally in a neuroimaging study and ocasionaly present with seizures, visual loss and headache. However in this report, the patient in question had a tumor associated to recurrent TVS thrombosis, by mechanisms not yet fully understood. Due to the risk-benefit of the surgery, it was opted for conservative treatment with anticoagulation for an indefinite period and the patient does not have new episodes of neurological changes.

1320 / #EV0138

LEVODOPA INDUCED DYSKINESIA

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Case Description: Levodopa, the most effective drug for Parkinson's disease (PD) can complicate with motor fluctuations. Different types of movement disorders can occur. A 64-year-old man with a mixed Parkinsonian syndrome with more than 7 years of evolution, treated with 150 mg of levodopa and 1200 mg of carbidopa daily. On its basal state, he presented dyskinesia that repercuted on its daily activities. He is brought to the ER with a 1 day evolution of agitation and increased dyskinesia with high amplitude. Upon neurologic examination, he was conscious, cooperative, had reduced facial mimic and normal speech and was capable of elevating all four limbs against gravity. He presented rigidity predominantly on the left side as well as dysdiadochokinesia on the same side.

Clinical Hypothesis: Hypothesis of an acute cerebrovascular event or epyleptic crisis arose, leading to the necessity of brain imaging.

Diagnostic Pathways: Analytics showed slight rhabdomyolisis of 416 U/L, CK-MB of 45 U/L, chest x-ray was normal. Brain CT scan showed no relevant vascular or parenchymatous alterations. Upon a case of agitation and movement disorders, we had no acute brain lesions to justify a cerebrovascular disease or epilepsy subtract. Infectious and metabolic causes were also discarded.

Discussion and Learning Points: Levodopa induced dyskinesia (LID) was assumed given recent medication adjustment and the patient was managed with medication adjustment and close follow-up by a neurologist. LID is common and difficult to treat in patients with PD. It's phenotypically variable and management depends on identifying the type of dyskinesia and treating it accordingly. Reduction of levodopa dose is helpful.

 DOI: 10.12890/2022_V9Sup1

1601 / #EV0139

LARGE HEMISPHERIC INFARCT

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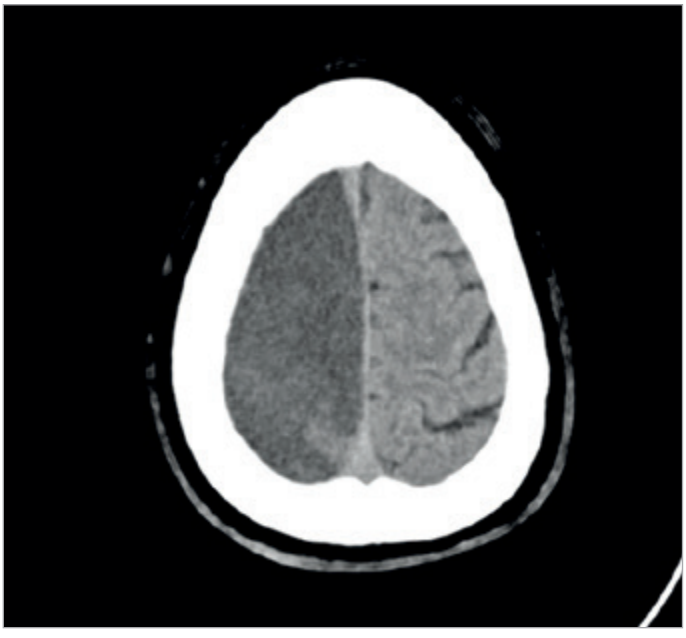
Case Description: Large hemisferic infarct is a specific and devastating type of stroke that usually affects the middle cerebral artery with poor outcome. 84-year-old woman, autonomous for daily activities, living alone is found on the floor from fall from height and broungt to the emergency room. Irrelevant past medical history with only degenerative osteoarthritis and not chronically medicated. On neurological examination she was vigil, oriented but unable to nomeate, and compliant to simple orders. Had motor weakness of left face, arm and leg MRC scale score 1 and hemihypoesthesia. Her blood pressure was 185 over 100 mmHg, 90 bpm, 98% saturation on air and 191mg/dl of capillary glucosis the remaining exam was irrelevant.

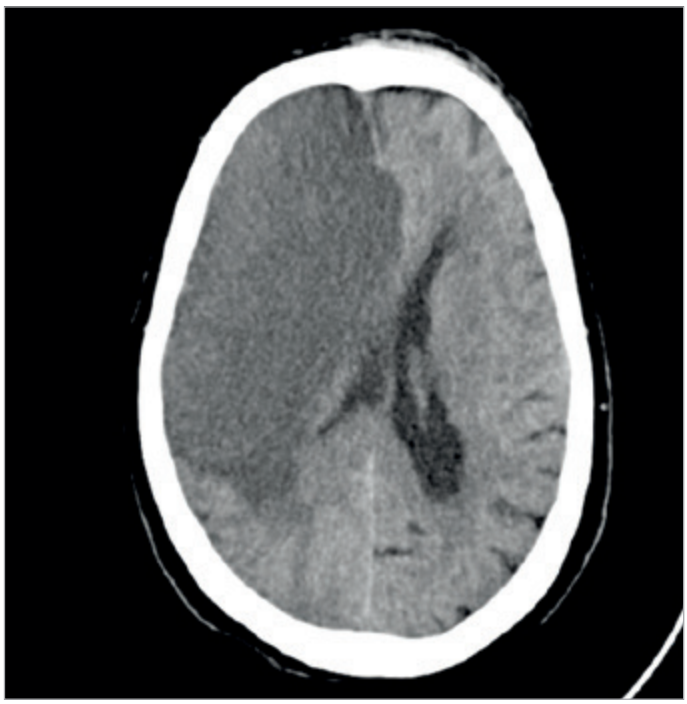
Clinical Hypothesis: The main diagnosis hypothesis was a cerebrovascular event.

Diagnostic Pathways: CT scan showed extensive cortico-subcortical infarct of right fronto-parietal lobes, basal ganglia and insula corresponding to territory of anterior cerebral artery and middle cerebral artery, with subacute evolution. There was no hydrocefalia or midline deviation (Figure).

Discussion and Learning Points: Noticing the exuberant images, complete obstruction of these two major artheries causes ischaemia of large brain tissue territories giving this condition poor outcome. The patient had a negative evolution with worsening of the neurologic state and the control brain CT revealed haemorragic transformation. The patient did not survive. Such as this case illustrates Large Hemispheric Infarcts are associated with malignant brain edema and stroke-related complications.



#EV0139 Figure 1.



#EV0139 Figure 2.

1277 / #EV0140

SIXTH NERVE PALSY

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Case Description: Male, 63 years, with alcoholic chronic liver failure, previous acute deep vein thrombosis and COPD. Persistent ethanolic consumption of 70 g/day, with an increased to 132 g/day in the last week. Addmitted to the Emergency department with diplopia and gait disturbance. Physical exam with horizontal binocular diplopia and ataxia.

Clinical Hypothesis: The causes for abducens nerve palsy are vast. The most common are small vessel diasease from diabetes, traumatic and neoplasic. In this case a metabolic cause couldn't be excluded.

Diagnostic Pathways: The patient did an head CT scan with no evidence of trauma or neoplasic lesions, and the blood tests showed only an folic acid deficiency, with no evidence of diabetes. Thiamine suplemmentaion was started. The head MRI indicated Wernicke encephalopathy. The patient improved from with resolution of palsy and ataxia, after the suplemmentation and alcohol withdrawal.

Discussion and Learning Points: Wernicke encephalopathy often presents with ataxia, confusion, nystagmus and ophthalmoplegia and in the initial stages is a reversible disease. The timely treatment is central to a good long term prognosis and should be started in patients with heavy alchool consumption.

DOI: 10.12890/2022_V9Sup1

1374 / #EV0141

BELL'S PALSY AND COVID-19

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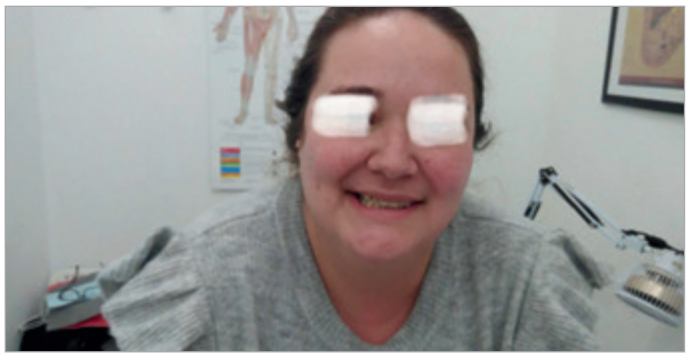
Case Description: Bell's palsy is the most common cranial nerve palsy, with unclear etiology and pathophysiology. Although Bell's palsy is, by definition, an idiopathic disease, mounting evidence shows that several viral infections are related to it. Currently, the COVID-19 pandemic has affected millions of people worldwide, revealing itself through various types of neurological manifestations.
Clinical Hypothesis: 36-year-old female with COVID-19 infection, with no personal history of enhancement. Onset was sudden facial weakness on the right and difficulty closing the right eye, four weeks after the diagnosis of COVID-19 infection.
Diagnostic Pathways: On physical examination, he presented facial nerve palsy of the right lower motor neuron (House-Brackmann grade IV) (Figure).
Discussion and Learning Points: Serological screening for Lyme disease, human immunodeficiency virus (HIV), and herpes simplex virus (HSV) 1 and 2 were negative for acute infection. An MRI scan confirmed Bell's palsy. Corticosteroid therapy was started, with progressive improvement. This case adds to the growing body of literature on neurological complications that should be considered when treating patients with COVID-19 infection.



#EV0141 Figure 1.

516 / #EV0142

POLYNEUROPATHY WITHOUT MYELOPATHY DUE TO RECREATIONAL USE OF NITRIC OXIDE

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Case Description: A 19-year-old woman presented to the emergency department with a 2-week history of upper and lower limb paresthesia and pain. Her past medical history was notable for *H. pylori* gastritis and SARS-CoV-2 infection 1 month before. She was medicated with esomeprazole for gastritis. When questioned, she admitted inhalation of nitric oxide both on the day before symptoms' onset and a week before. On physical examination she had hyperesthesia bellow the hips and atypical gait, with weakness in knee extension and areflexia in the lower limbs.
Clinical Hypothesis: Due to the previous SARS-CoV-2 infection, the initial clinical suspicion was Guillain-Barré syndrome (GBS), and nitric oxide toxicity was considered less likely.
Diagnostic Pathways: Cerebrospinal fluid analysis was normal. Initial laboratory evaluation was unremarkable except for folate 4.1 ng/dL (normal >4.8 ng/mL) and a high homocysteine of 92 mmol/L (normal <12 mmol/L). Cyanocobalamin was normal. Electromyogram was non-specific (loss of H reflexes bilaterally, without unequivocal signs of neuropathy or demyelination). Spinal magnetic resonance imaging was normal. Due to the strong clinical suspicion of GBS, the patient was started on intravenous immunoglobulin for 5 days without improvement. Due to the lack of improvement, the hypothesis of nitric oxide toxicity was admitted as more likely. She started cyanocobalamin supplementation and physiotherapy as an outpatient.
Discussion and Learning Points: Nitric oxide toxicity is now a well-recognized cause of myelopathy or neuropathy due to interference with cyanocobalamin metabolism, leading to low or normal serum cyanocobalamin and to high levels of markers of cyanocobalamin deficiency such as homocysteine. Direct questioning regarding nitric oxide use is essential for diagnosis.

1063 / #EV0143

ETIOLOGICAL INVESTIGATION OF ISCHEMIC STROKE IN AN INTERNAL MEDICINE WARD

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[2]Nova Medical School, Centro de Estudo de Doenças Crónicas (CEDOC), Lisboa, Portugal

Background and Aims: Existing literature is ambiguous on how to investigate stroke patients, questioning the role of the 24h Holter, brain magnetic resonance imaging (MRI) and transthoracic echocardiogram (TTE). We aimed to determine: - The incidence of paroxysmal atrial fibrillation (AF) detection in the 24h Holter - The impact of the MRI and TTE in secondary prophylaxis - The prevalence of AF in patients with lacunar vs non-lacunar stroke
Methods: Retrospective analysis of all consecutive patients admitted in our Internal Medicine ward from January to December of 2019, with the main diagnosis of ischemic stroke. We analyzed age, sex, risk factors for stroke, stroke classification accordingly to the Oxford Classification for Stroke, ECG, Holter, MRI and TTE results, and treatment modifications due to these results.
Results: We analyzed 98 consecutive patients, median age of 74, 46% women. Most strokes were classified as lacunar or of the partial anterior circulation. Hypertension, diabetes, and dyslipidemia were the most common risk factors. Of the 45

 DOI: 10.12890/2022_V9Sup1

patients with 24h Holter, 4% were diagnosed with paroxysmal AF. AF was more common in non-lacunar strokes than in lacunar strokes (37% vs 13%; χ2 test, p=0.037). In the 21 patients with brain MRI, the exam was decisive for starting anti-aggregation in 19%. None of the 68 TTE results led to changes in treatment.
Conclusions: In this population, the generalized study of patients admitted due to stroke with a 24h Holter, TTE and brain MRI was not useful for secondary prophylaxis of stroke. Their use should be considered on a case-by-case basis.

1809 / #EV0144

MTHFR GENE MUTATION – A RISK FACTOR TO STROKE IN A YOUNG PATIENT

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Case Description: 47-year-old female, with a history of active smoking, came to the emergency department for an episode of aphasia and right hemiparesis (face, upper limb grade 4 and lower limb grade 4). On computerized tomography (CT) scan was identified a caudate-radiary and lentico-capsular hypodensities of recent ischemic aetiology. She was assumed to have a lacunar syndrome, without criteria for emergent treatment. In the first 24 hours of hospitalization in the stroke unit, she presented an unfavourable evolution: right hemiplegia and worsening aphasia. She repeated CT scan which showed distal occlusion of the left anterior M2 branch with apparent endoluminal thrombus. She underwent thrombectomy with residual improvement in deficits. Maintained right central facial paresis, motor aphasia with sparse verbalization, right upper limb paresis and right upper limb hypoesthesia. She started a physiatric rehabilitation plan.
Clinical Hypothesis: Mutation in the MTHFR gene as a risk factor for stroke.
Diagnostic Pathways: Extensive etiologic study with ECG, Holter, transthoracic echocardiography, echodoppler bubble test, viral, metabolic, immune was done without any alteration found. A MTHFR C677T mutation was identified in homozygosity.
Discussion and Learning Points: This case intends to show the etiological approach of a stroke in a young patient. Studies have shown a link between homozygosity in the MTHFR gene (C677T polymorphism) and thrombotic events, which in this case, can have played a role in the stroke of this patient.

2082 / #EV0145

WALLENBERG´S SYNDROME: INAUGURAL MANIFESTATION OF THROMBOPHILIA

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Case Description: Wallenberg's syndrome is usually caused by occlusion of the vertebral artery, with the posterior inferior cerebellar artery being the second most frequent cause. Vertebral artery dissection due to neck manipulation or injury is the commonest cause of Wallenberg syndrome in younger patients. A 41-year-old man without prior relevant medical history, namely head/neck trauma, presented to the emergency department with h ache, vertigo, dysphonia, dysphagia, loss of balance with gait instability, impaired taste, loss of pain, and temperature sensation on the right face and contralateral body, with preserved muscle strength. The neurological examination revealed right ptosis, horizontal nystagmus, impaired temperature and pain sensation in the right face and contralateral body, and left deviation of the uvula.
Clinical Hypothesis: Stroke; neurodegenerative disease; arterial dissection.
Diagnostic Pathways: Laboratory workup revealed an activated protein C resistance and factor V Leiden (FVL) mutation. The magnetic resonance identified an acute millimetric ischemic focus in the right posterolateral aspect of the medulla oblongata compatible with Wallenberg's Syndrome. EKG, echocardiogram, and 24h Holter register were uneventful. Treatment included blood pressure management, physical rehabilitation, and anticoagulation.
Discussion and Learning Points: Thrombophilias are associated with an increased risk of venous thrombosis, but their relation to arterial ischemic stroke is less established. FVL is the most common genetic variation in coagulation pathway inducing a prothrombotic state and therefore a non-negligible cause of ischemic stroke, especially in a young patient without cardiovascular risk factors. This syndrome has a better functional outcome than most other stroke-related syndromes and a multimodal approach can reduce the risk of subsequent ischemic events.

2100 / #EV0146

ALTERED STATE OF CONSCIOUSNESS - FOCAL SEIZURE WITH RETAINED AWARENESS

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Case Description: 49-year-old male unable to tell anamnesis is sent to the ER by a fellow clinician. He is desoriented and agitated and

 DOI: 10.12890/2022_V9Sup1

has a confused and repetitive speech. He refers to himself as "we" i.e. "we don't know what happened to us". He knows his name and age and his answers are erratic. He is fully cooperative and obeys simple and complex comands with no neurological focalization other than a motor aphasia. His BP was 180/103 mmHg, a pulse of 96 bpm and no dessaturation. Fellow clinician records registered a past medical history of a surgically removed angioma. Upon telephonic conversation with his sisters, she tells these changes were acute, and the patient is on epileptic medication.
Clinical Hypothesis: This was a patient with an altered state of conscious and a single motor aphasia with an epileptic substract.
Diagnostic Pathways: Brain CT scan revealed a focal temporo-occipito-parietal hypodensity with a calcificated core and vasogenic edema. The patient was treated with IV levetiracetam, with full reversion of the symptoms within minutes. The patient recalled all the events previously related. He stopped taking anti-seizure medication by his own will. The patient was discharge with neurologic follow-up with brain MRI and EEG.
Discussion and Learning Points: The symptoms of focal seizures with retained awareness (FSRA) vary and depend entirely on the part of the cortex that is disrupted at the onset of the seizure. Postictally, patients may return immediately to their pre-event baseline or may experience a period of worsened neurologic function related to the location of the seizure in the brain.

1322 / #EV0147

ANEMIA AS AN ENEMY OF NEUROLOGIC SYSTEM

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Case Description: A 75-year-old woman with history of transient ischaemic attack (TIA) presented with asthenia and sudden onset right hemiparesis, facial asymmetry, aphasia and tachycardia. Electrocardiogram showed atrial flutter, chest X-ray showed perihilar congestion and cardiomegaly. Cerebral computed tomography showed no acute event. Laboratory work showed severe anaemia (haemoglobin 6.6 g/dL) and renal impairment. She was admitted with acute anaemia and hypoperfusion causing exacerbation of heart failure and renal impairment, atrial flutter and neurologic deficits without evidence of cerebral event. After blood transfusion and heart rate control patient presented spontaneous resolution of neurological deficits.
Clinical Hypothesis: Considering the previous data, the most plausible diagnostic was TIA due to hypovolemia/hypoperfusion associated to acute anaemia.
Diagnostic Pathways: On etiological study, iron, vitamin B12 and folic acid deficiency were excluded, and endoscopic studies were normal. Imagological studies revealed severe stenosis of right and left external carotid arteries and right vertebral artery and the patient was on dual anti-aggregation therapy and hypocoagulation since the TIA, this being assumed as the cause of anaemia. Due to the high haemorrhagic risk, no invasive treatment was performed and hypocoagulation was re-initiated. She showed rapid decline of haemoglobin and neurological deficits re-emerged so hypocoagulation was stopped.
Discussion and Learning Points: This case emphasizes challenges associated with anticoagulation. On one hand we have a patient with severe cerebrovascular disease, with high risk of occlusion and cardiac embolization. On the other hand, the patient presented elevated haemorrhagic risk, with episodes of severe anaemia associated to hypovolaemia causing cerebral hypoperfusion. Either way, this patient is at high risk of cerebral ischaemia.

1345 / #EV0148

FATAL INR – A SYNERGISM BETWEEN WARFARIN AND CIPROFLOXACIN

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Case Description: A 95-year-old woman with history of atrial fibrillation, under warfarin, presented with inflammatory signs in the right lower limb and was discharged with ciprofloxacin to treat an erysipelas. Due to persisting inflammatory signs, she decided to prolong antibiotic therapy. A few weeks later, she presented prostrated, tachypnoeic, tachycardic and hypotensive, with large bruises on the dorsal and breast region (without trauma). Laboratory work showed severe anaemia (haemoglobin 5 g/dL) and severe renal impairment. The INR was >12 and reverted to normal values after phytomenadione.
Clinical Hypothesis: Spontaneous internal haemorrhage due to supratherapeutic INR.
Diagnostic Pathways: Severe anaemia due to spontaneous bleeding lead to hypovolemia and acute renal failure.
Discussion and Learning Points: Warfarin is a vitamin K antagonist used to decrease production of some coagulation factors, inhibiting secondary haemostasis. It has a long half-life, is metabolized by the liver by multiple cytochromes (CYP1A2 and CYP3A4) and has renal excretion, with multiple drug interactions. Ciprofloxacin is a fluoroquinolone often used in the treatment of skin and soft tissue infections. It acts at hepatic level, inhibiting cytochromes 1A2 and 3A4, being associated with increased concentration of warfarin and, consequently, an increased INR. Excessively prolonged use of this drug has been the triggering factor for supratherapeutic INR. Although anticoagulation is not directly associated with spontaneous bleeding, it interferes with the normal haemostatic process. Therefore, patients with endothelial fragility or loss of vascular wall integrity, will not be able to reverse microscopic haemorrhages, evolving into expanding hematomas, with the potential for clinically significant haemorrhage, as seen in this patient.

 DOI: 10.12890/2022_V9Sup1

1120 / #EV0149

WHEN NOT EVERYTHING IS STROKE

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Case Description: Sensorineural deafness (SD) is characterized by acute sensorineural hearing loss, almost unilateral, within a 72-hour period. In most cases, the aetiology is idiopathic and the prognosis for recovery depends a lot on the severity. The exact incidence of idiopathic SD (ISD) is uncertain as recovery can be spontaneous and many don't seek medical help. It's more common between 43 to 53 years, without gender prevalence.
Clinical Hypothesis: A 56-year-old woman, with vertigo syndrome and 66% of right vestibular hyporeflexia, followed by otorhinolaryngology (ORL) consultation, referred to the Emergency Department due to sudden deafness in the left ear (LE). The neurological examination showed dysmetria in the left finger-nose test and Romberg test with left posterolateral fall, with no other changes on examination. Analytically and cranioencephalic (CE) computed tomography angiography without changes. Due to persistent symptoms and non-tolerance of orthostatism was admitted to Internal Medicine.
Diagnostic Pathways: During hospitalization, she performed nuclear magnetic resonance CE which excluded stroke. Transthoracic echocardiogram and Doppler of the neck vessels without changes, 24-hour Holter in sinus rhythm with very rare extrasystoles, normal lipid profile and proteins' electrophoresis, autoimmunity and serologies negative. The hypothesis of ISD was raised and the patient started prednisolone 60 mg/day, with progressive improvement in hearing, and was guided to Internal Medicine and ORL consultation to fulfill 10 days of corticotherapy. The patient currently has hearing improvement.
Discussion and Learning Points: SD can have many aetiologys, however in most cases is idiopathic. ISD is treated with steroids. This case demonstrates the importance of the etiological investigation of patients with neurological disorders and their distinction from stroke.

1140 / #EV0150

CENTRAL RETINAL ARTERY OCCLUSION

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Case Description: Central retinal artery occlusion (CRAO) presents with sudden and painless loss of monocular vision. It's considered a form of cerebrovascular accident, higher prevalence in men, average age between 60 and 65 years, with more than 90% over 40 years. Hypertension, smoking and diabetes are the most prevalent concomitant diseases.
Clinical Hypothesis: A 59-year-old male, with past smoking and alcohol consumption, is sent to the Emergency Department due to a 3-day loss of visual acuity in the right eye (RE). After evaluation by Ophthalmology, an OCRA is documented with visual acuity of the RE 1/20, a cherry macula with pallor of the entire posterior pole, without changes in the left eye. It is thus oriented to Internal Medicine for etiological study. On admission, there were no other changes in physical examination or symptoms. Angio computed tomography of the cranioencephalic and neck vessels demonstrated irregularities in the lateral wall of right carotid bulb, with focal reduction in caliber, being normal downstream. Analytically and EKG without changes.
Diagnostic Pathways: From the etiological study a negative sedimentation rate, syphilis screening, HBV, HCV, HIV and normal thyroid function. He was oriented to an internal medicine and ophthalmology consultation.
Discussion and Learning Points: Atherosclerosis of the carotid artery is the most common aetiology but uncommon under 40 years, in whom cardioembolic is more likely. Giant cell arteritis is more likely in patients over 70 years. In CRAO, vision loss is severe, leaving only a small temporal island of vision. Thus, is a rare form of stroke that needs to be addressed and demonstrates the importance of follow-up cardiovascular risk factors to prevent new events.

2317 / #EV0151

HYPERCALCEMIA AS A CAUSE OF PRES SYNDROME

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Case Description: We present a 78-year-old man who was brought to the Emergency Department with a complaint of asthenia and disorientation. The patient had a personal history of systemic erythematous lupus and chronic kidney disease after nephrectomy due to oncocytoma secondary to Birt-Hogg-Dubé syndrome. He was receiving treatment with prednisone, calcium and vitamin-D. Neurological examination didn't show focal damage. Blood test revealed acute kidney injury and hypercalcemia (13.5 mg/dL). The patient was hospitalized in Internal Medicine after initiating hypercalcemia treatment. Later, the patient started with decrease consciousness and generalized tonic-clonic seizures. After this episode the patient remained with cortical blindness, dysarthria associating metabolic acidosis and higher calcium serum levels.
Clinical Hypothesis: The possible diagnostics were: ischemia, structural epilepsy, vasculitis flare and posterior reversible encephalopathy syndrome (PRES) secondary to metabolic disorders in the context of calcium supply and acute kidney injury.
Diagnostic Pathways: Electroencephalography demonstrated bi-hemispheric trace dysfunction. Cranial CT revealed parieto-

 DOI: 10.12890/2022_V9Sup1

occipital white matter abnormalities and absence of vascular occlusion. After correction of hypercalcemia, there was an important improvement with complete clinical recovery, normalization of the electroencephalographic tracing and disappearance of the hypodense white matter lesions in the cranial CT.
Discussion and Learning Points: Hypercalcemia is rarely associated with PRES and may occur alongside other risk factors such as hypertension and renal failure. The pathophysiology may be due to calcium-induced vasospasm or endothelial dysfunction. PRES should be considered in patients with hypercalcemia, neurological symptoms and parieto-occipital pattern of abnormalities on neuroimaging. Prompt treatment of hypercalcemia and the underlying cause is essential to achieve an excellent prognosis.

648 / #EV0152

AORTITIS: AN UNUSUAL CAUSE OF SPINAL CORD INFARCTION

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Case Description: A 54-year-old patient, heavy smoker with history of type 2 diabetes, was hospitalized for acute paraplegia. Onset was marked by severe back pain associated with difficulty in walking, evolving rapidly into complete paraplegia. The patient also reported headaches during the last month. Clinical examination showed flaccid paraplegia with urinary retention as well as an anaesthesia up to T4. Routine blood tests showed elevated inflammatory markers. The spinal cord MRI showed abnormalities in the spinal cord signals seemingly ischemic, anterior, extensive and multifocal without enhancement after gadolinium injection, reaching the dorsal cord from T5 to T7.
Clinical Hypothesis: Upon these elements we recalled aortic dissection, atherosclerotic infarction and gigantic cell arteritis.
Diagnostic Pathways: A CT angiography of the aorta ruled out a dissection of the aorta. Nevertheless, it demonstrated regular circumferential thickening of the wall of the thoracic and abdominal aorta extending to the supraortic trunks suggesting inflammatory aortitis. The tuberculous and syphilitic origin of this aortitis was quickly eliminated. In view of the history of headache and despite the absence of temporal pulse abnormalities, a Doppler ultrasound of the temporal arteries was performed and was normal. We performed a temporal artery biopsy which showed no evidence for gigantic cell arteritis. The rest of the etiological investigations of this aortitis were negative.
Discussion and Learning Points: Aortic diseases such as atherosclerosis and aortic dissection as well as surgical repair of the aorta are common causes of spinal cord infarction. Less commonly, it may be secondary to heart failure or vasculitis. Our case illustrates the difficulty of the etiological investigation of this pathology.

1828 / #EV0153

ANTICOAGULATION: TWO SIDES OF THE SCALE

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Case Description: 79-year-old independent man, with hypertension, dyslipidaemia, type 2 diabetes, previous history of ischaemic stroke and TIA, valvular cardiomyopathy, and atrial fibrillation. Admitted into the ED for disorientation and dysarthria. Patient showed no motor deficits or visual deficits.
Clinical Hypothesis: Ischaemic Stroke.
Diagnostic Pathways: Head angio-TC showed no new ischaemic or haemorrhagic lesions. Lab results showed leucocytosis and elevated CRP. No history of fever, cough, dyspnoea, dysuria. A contrast body CT excluded infection sites but showed segmental pulmonary embolism. Lumbar puncture was not performed as patient showed no fever. Patient was admitted into the Internal Medicine ward and head MRI was performed, which showed presence of focal cortical and subcortical haemorrhagic foci compatible with amyloid angiopathy and several punctiform ischaemic foci. So, this patient had reasons to be on anticoagulants (atrial fibrillation, segmental EP and signs of ischaemic cerebral foci compatible with embolization) but also signs of cerebral haemorrhage due to amyloid angiopathy. This made very difficult the decision to maintain or stop anticoagulation, but as the patient was previously independent the decision to maintain anticoagulation was made as he showed improvement of the neurologic deficits.
Discussion and Learning Points: This situation shows how hard decision making is in clinical practice, guidelines try to mitigate the grey areas, but are not all-knowing as these situations are gaps in evidence even in the latest stroke guidelines. The uncertainty of maintaining anticoagulation as being the right decision persists, as it can have catastrophic results, but so can stopping as patient had a history of numerous embolic events.

336 / #EV0154

MULTIFACTORIAL STROKE: A MIX BETWEEN ELEVATED FACTOR VIII, PATENT FORAMEN OVALE AND COVID-19

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Case Description: We present a case of a 46-year-old brazilian female with a stroke with a challenging diagnostic study.
Clinical Hypothesis: The VIII factor is an important clotting factor that allows increased concentration of VWf and conversion of X factor to Xa factor. Elevated leves of VIII factor seemed to be associated with venous and arterial thrombosis. 11% of the adult population has VIII factor elevated levels.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: We present the case of a 46 years old female, natural from Brasil, with relevant family history of sudden death by stroke of her sister, her father and her grandfather.
She was first hospitalized due to a right medium cerebral artery (MCA) stroke. A thrombectomy was performed and her NIHSS improved from 9 to 2. The etiologic study revealed a thin interatrial septum, an elevated level of VIII factor, ANA positivity (titles 1/640), SDF 70+ with mottled pattern (non autoimmune pattern). It is important to point that she had SARS-COV-2 infection, in spite of no symptoms. Single antiaggregation with aspirine was started. A month after she was again hospitalized with a right MCA stroke, caused by arterial dissection of the same MCA area. The etiologic study showed a big right-left shunt at transcranial doppler microembolic signs search; a patent foramen ovale versus a small interatrial communication at the echocardiography and maintenance of elevated levels VIII factor and ANA positivity.
Discussion and Learning Points: This case reminds us the value of a good clinical history and a complete etiologic study along with the complexity of an ischaemic event.

629 / #EV0155

THE INCIDENCE OF MEDICAL COMPLICATIONS IN PATIENTS WITH ACUTE ISCHEMIC STROKE

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Background and Aims: Complications after stroke have been associated with prolonged hospitalization and poor outcome. The aim of this study was to investigate the frequency and type of complications after acute ischemic stroke (AIS) during hospitalization in our internal medicine department.
Methods: 623 hospitalized patients with AIS, 324(52%) female and 299(48%) male with mean age of 73±12.3 years, during last five years, were included in this study. Demographical data, co-morbidities, risk factors, complications during hospitalization and outcome were retrospectively evaluated. SPSS 20 package was used for statistical analysis.
Results: 292 (46.9%) patients with AIS had at least one complication during their hospitalization. The more common complications were: 96 (15.4%) urinary tract infections, 83 (13.3%) pulmonary infections and from those aspiration pneumonia, 67 (10.7%) depression, 59 (9.5%) limp pain, 54 (8.7%) uncontrolled hypertension, 49 (7.9%) urinary retention, 51 (8.2%) cardiovascular events (acute coronary syndrome, arrhythmias, cardiac failure), 41 (6.6%) pressure sores, 37 (5.9%) falls, 14 (2.2%) thromboembolic events, 23 (3.7%) recurrent stroke, 14 (2.2%) gastrointestinal bleeding and 11 (1.8%) epileptic seizures. Patients >65 years were more likely to suffer multiple complications (>2). Females were more likely to have urinary tract infection (p=0.038) and depression (p=0.018). The mortality rate and the global length of stay between patients with and without post-stroke complications were: 16.8% vs. 5.7%, (p<0.001) and 21.4 days vs. 8.6 days, (p<0.001), respectively.
Conclusions: In our study, almost half of the patients with AIS had at least one complication. A pro-active approach is ideal in all post-stroke patients, in order to identify and treat any complications early to improve outcome.

257 / #EV0156

SMART SYNDROME: A GREAT UNKNOWN ON THE RISE

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Case Description: A 32-year-old man whit a medical history of: acute promyelocytic leukemia in 2010, underwent autotrasplantion and allogeneic trasplantation of and identical brother after the 3rd recurrence, Space occupying lesion. Radionecrosis. Leukencephalopahy. Right temporal vasogenic edema. bilateral total hip arthoplasty. Flaccid palsy right brachial plexus left arm. He went to the emergency room reporting a sudden episode of left frontoparietal pain and blurred vision with decreased visual acuity. The neurological examination revealed an anisocoria with a miotic left pupil.
Clinical Hypothesis: This clinic alarms us given the neoplastic history of our patient, since it could clearly be a cental recurrence in form of space occupying lesion. A computerized tomography scan is performed in the emergency room, which is inconclusive, so studies are expanded and that, guide towards the diagnosis of a "SMART Syndrome" after an MRI.
Diagnostic Pathways: In the emergency department, a complete anamnesis is performed, as well as ain initial battery of test consisting of analytics and CT. The blandness of the results entails admission of the patient with a magnetic resonance imaging (MRI) that gives the diagnosis of certainly.
Discussion and Learning Points: SMART syndrome is an extremely rare pathology of which there are just over 100 cases in the current medical literature. It is a late complication of raduitherapy occuring on average 9.5 years post-radiotherapy that is caracterized by the appearance of acute neurology symtoms. The significant increase in incidence it should be considered within the initialdifferential diagnosis in all patients who required radiotherapy, even with up to 10 years prior to the appearance of symtoms.

 DOI: 10.12890/2022_V9Sup1

2663 / #EV0157

CEREBRAL AMYLOID ANGIOPATHY-RELATED INFLAMMATION PRESENTING WITH A STROKE-LIKE EPISODE: A CASE REPORT

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Case Description: 73-year-old female, observed in the emergency room (ER) for inaugural tonic-clonic seizure. Past history comprised a presumptive diagnosis of Alzheimer's disease versus vascular dementia. Her symptoms included cognitive impairment with memory loss, abnormal thought content and auditory-visual hallucinations for the past 4 years. Additionally, the patient complained of persistent, torelable and blunt bi-temporal headache. After laboratory and imageology studies done in the ER the patient was firstly diagnosed with a subacute ischemic stroke (IS) and admitted to the ward for management and stroke's etiologic investigation. Drug prescription included Tapentadol, which was suspended to obliterate potential confounding factors given its known association to seizures. After exclusion of all causes of IS and due to the lack of cardiovascular risk factors, a magnetic resonance imaging (MRI) was performed, revealing a lesion with vasogenic edema extending from the left occipital subcortical to the ipsilateral periventricular areas and lateral occipital cortex, associated with multiple right temporo-occipital frontal microhemorrhages, which taken together evoke cerebral amyloid angiopathy related inflammation (CAA-ri).
Clinical Hypothesis: The hypothesis of CAA-ri was considered and corticosteroid therapy was started.
Diagnostic Pathways: Although classically CAA-ri's definite diagnosis required brain and leptomeningeal biopsy, validated clinical, laboratory and radiological diagnostic criteria for probable CAA-ri allows patients to commence treatment while avoiding the risks associated with brain biopsy
Discussion and Learning Points: This case report highlights the importance of MRI in the investigation of stroke-like episodes without evident cardiovascular disease. Clinicians must be aware of CAA-ri, since prompt immunosuppressive therapy is associated with improvement of the patient's cognitive status.

1042 / #EV0158

WHEN LYING DOWN SEEMS TO BE THE ONLY REMEDY – A CASE OF SPONTANEOUS INTRACRANIAL HYPOTENSION

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Case Description: A 34-year-old man, healthy, woodworker, presented to the emergency room with a new-onset orthostatic headache without history of recent trauma or medical procedures. The headaches had begun two days before presentation, irradiating initially to the occipital and posterior cervical areas, and later to the thoracic posterior area – whenever seated or in orthostatism - with profuse sweating and nausea, evolving to complete inability to got up from lying position, with no relief with anti-emetic or analgesic medication. Evaluation included a normal neurologic examination, no meningeal signs and normal computed tomography (CT) scan of the brain. Suspecting of spontaneous intracranial hypotension (SIH) the patient was admitted, hydration and caffeine were initiated, and a head and spine magnetic resonance (MRI) was obtained, revealing diffuse pachymeningeal enhancement, dilation of the intracranial venous system, pituitary enlargement, and a posterior epidural collection (C7 to L1) with engorgement of the epidural venous plexus in relation with a probable cerebrospinal fluid (CSF) fistula. Subsequently the patient was transferred to a tertiary center to identify the exact site of the CSF leak and perform an epidural blood patch. After closure of the dural leak the patient experienced complete resolution of the symptoms.
Clinical Hypothesis: SIH is a rare entity, characterized by postural headache and low CSF pressure. Presentation is variable, ranging from postural headache to coma.
Diagnostic Pathways: Diagnosis is usually made recurring to imaging - MRI or mielography.
Discussion and Learning Points: Patients with SIH are often incorrectly diagnosed at first presentation, postponing diagnosis and treatment.

2703 / #EV0159

NOT ALWAYS "BENIGN" MEANS FINE

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Case Description: A 86-year-old woman was brought to the ER after a sudden loss of consciousness. At arrival she was hemodynamically stable, confused but without any other neurological deficits. She had a history of lung cancer with permanent need of oxygen.
Clinical Hypothesis: Given this history and the high risk of brain metastasis development a brain CTscan was requested.
Diagnostic Pathways: An intraosseous meningioma of 44x41 mm was found growing in the ceiling and lateral wall of the right orbit resulting in proptosis and medial deviation of the ocular globe. The lesion growth also extended to the intracranial space, compressing the ipsilateral frontotemporal brain lobe, and temporal fossa. After consulting with the Neurosurgical team, their evaluation determined that there was poor surgical feasibility and poor patient pre-surgical status. Therefore, the best treatment option was symptomatic control initiating levetiracetam 500 mg/bid for seizure control and dexamethasone 5 mg/bid for oedema control and prevention of further progression.
Discussion and Learning Points: Although lesions classified

 DOI: 10.12890/2022_V9Sup1

as benign usually have a better outcome, some of them can sometimes have a dramatic presentation and poor prognosis as well. This case portrays the ambiguity of the term "benign" when associated with a lesion growing in such a sensitive area near the brain, and also highlights an uncommon subtype of meningioma with a difficult surgical approach and a severe prognosis.

2723 / #EV0160

LITERALLY "OUT OF YOUR MIND"

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Case Description: A 62-year-old woman was referred to Internal Medicine thyroid pathology area consultation. Although her conditions were stable, she frequently presented incapacitating episodes of dizziness and headaches. Simultaneously, she began to refer neck pain without irradiation to the upper limbs, but with bilateral numbness of fingers.
Clinical Hypothesis: In order to exclude a neurological lesion a brain CTscan was requested.
Diagnostic Pathways: CT-scan revealed an obliteration of the brain and cerebellum cisternal spaces, as well as, the supra and infratentorial ventricular areas, especially at the bulbomedular transition. An ectopic positioning of the cerebellum amygdalas was also very evident at the level of the lower portion of the posterior arch of the atlas bone. A partial empty sella turcica could also be seen. A brain MRI confirmed the findings of the previous exam, with the accurate positioning of the amygdalas at 20 mm caudally to the foramen magnum. The presence of hydrocephalus was excluded and the confirmation of empty sella turcica was confirmed. Arnold-Chiari Syndrome was diagnosed. The patient was later referred to the Neurosurgical team for evaluation and follow-up.
Discussion and Learning Points: Dizziness is one of the most referred symptoms and has a very extensive differential diagnosis. The costly and timely diagnostic process, associated with a frequent spontaneous remission, sometimes leads to a symptom control approach with low level of investigation. This case demonstrates the importance of the patients complaints and the need to always investigate the cause of those same complaints. It also presents a rare cause of a very common symptom that so frequently is undervalued.

508 / #EV0161

SCREENING FOR POLYNEUROPATHY IN THE YOUNG PATIENT

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Case Description: A 30-year-old man with general discomfort, feeling of dizziness and postural instability that increased with movements, paresthesias in the hands and feet, and diplopia in distant vision that disappeared with monocular vision, for a week. He suffered a self-limited catarrhal fever two weeks ago. On neurological examination, diplopia with superior vertical gaze and left supero-external gaze, without ptosis, remaining cranial nerves preserved, with abolished bilateral patellar, Achilles and supracondylar reflexes.
Clinical Hypothesis: As the main suspicion, we must rule out some type of polyneuropathy.
Diagnostic Pathways: As supplementary tests, brain magnetic resonance imaging without findings. A lumbar puncture, with glucose 60 mg/dL and proteins 29.20 mg/dL in cerebrospinal fluid, without red blood cells or leukocytes and negative microbiology. An electromyogram showed signs of mild-grade pure sensory axonal polyneuropathy, without signs of demyelinating involvement, with normal motor conduits. Analytical with negatives autoimmunity profile, anti-proteinase-3, anti-myeloperoxidase, anti-acetylcholine receptor and anti-MuSK antibodies, with normal ACE, negative EBV, HIV and CMV serology. Positive anti-ganglioside antibodies (GQ1b and GT1a), which guides towards Miller Fisher Syndrome.
Discussion and Learning Points: Miller Fisher Syndrome can be confused with a brain-stem stroke and neuromuscular junction disorder such as myasthenia gravis, which are ruled out by presenting gradual clinical signs, negative anti-acetylcholine and anti-MuSK receptor antibodies and electromyogram with normal motor conductions. Finally, in a young patient with recent viral symptoms and subacute symptoms of ophthalmoplegia and areflexia, with paresthesia in distal limbs (in gloves and socks), we must rule out Miller Fisher Syndrome, which is confirmed by signs of sensory axonal polyneuropathy in the electromyogram and positive anti-GQ1b antibodies.

 DOI: 10.12890/2022_V9Sup1

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AUTOIMMUNE LIMBIC ENCEPHALITIS ASSOCIATED WITH ANTI-LEUCINE-RICH GLIOMA INACTIVATED PROTEIN 1 ANTIBODIES IN A 48-YEAR-OLD PATIENT WITH BEHAVIOUR DISORDERS

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Case Description: A 48-year-old female patient was admitted with confusion, transient sensations of ''fear'' and ''strangeness'' and cervical muscle contracture over a week. Her relatives reported to be repetitive, with derailment, memory lapses, absence seizures and instability.
Clinical Hypothesis: Focal cognitive-emotional seizures, with and without preservation of consciousness.
Diagnostic Pathways: We performed an EEG, with normal baseline activity and persistent focal spikes and thêta waves in left temporal area. A lumbar puncture, cranial MRI and body PET-CT were performed, with no pathological findings. Blood tests showed positive anti-LG1 antibodies, without other abnormalities.
Discussion and Learning Points: Autoimmune encephalitis is a rare entity caused by autoantibodies against cell surface, synaptic and intracellular proteins, whether idiopathic or paraneoplastic associated. Within it, Anti-Leucine-Rich Glioma Inactivated protein 1 (LGI1) encephalitis is the second most common autoimmune cause. Patients develop a rapidly progressive neuropsychiatric disorder. Diagnosis is based on clinical approach, cranial MRI and EEG (with temporal lobe abnormalities), CSF analysis (sometimes with inflammatory profile) and plasma anti-neuronal antibodies. Underlying neoplasia should be ruled out. It should be treated promptly with immunotherapy (corticotherapy, intravenous immunoglobulins or plasmapheresis) and of the underlying neoplasm if present. Limbic encephalitis should be beared in mind in patients developing a rapidly progressive neuropsychiatric disorder. Anti-LGI1 encephalitis is the second most frequent autoimmune cause of encephalitis. A paraneoplastic syndrome as aetiology should always be ruled out.

2634 / #EV0163

MUCH MORE THAN A STROKE

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Case Description: 45-year-old woman without previous comorbidities went to the emergency department due to dysarthria and weakness of the left arm. At the time of physical examination, the patient had completely recovered from previous symptoms. However, after collecting blood samples the patient presented left central facial paralysis and reduction of dexterity of the left hand. Angiography of Head-CT revealed stop image on M1 of right middle cerebral artery. Due to the fluidity of presentation, it was considered a Moyamoya like vasculopathy and thrombectomy was not performed. The following day, she developed dysarthria, hemiplegia of left hemibody and left central facial paralysis. After repeating angiography, thrombectomy was performed. During recovery it was noticed a gait disorder of lordotic and myopathic pattern like "duck" and Gower sign. The patient never considered her gait abnormal due to the fact everyone in her family presents the same gait. Father and sister had a pacemaker implanted at a young age.
Clinical Hypothesis: Lacunar ischemic stroke of the right middle cerebral artery of cardioembolic origin in patient with myopathy.
Diagnostic Pathways: Electrocardiogram: auricular fibrillation. Transthoracic echocardiogram: dilation of cardiac cavities, severe dilation of left ventriculi, moderate left ventricular systolic disfunction and akinesia of inferior wall. Coronarography: No lesion of coronary arteries. Electromyography: Compatible with diagnostic of myopathy, with preponderance of proximal extremities.
Discussion and Learning Points: Careful physical examination, gathering of family history and the execution of complementary diagnostic exams after a cerebral ischemic event resulted in the diagnosis of a hereditary myopathy responsible for a cardioembolic event.

2647 / #EV0164

STAY AWAY FROM THE COLD

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Case Description: 84-year-old woman went to the emergency department in February of 2022 due to reduction of dexterity of the left hand after episode of hypothermia. The physical examination revealed weakness of the left arm, difficulty to complete precise and fine movements with left hand and jaundice, without choluria or acholic stool. The patient later described episode of left hemiparesis in November of 2021, with complete resolution of the deficits, without any medical intervention or physical therapy and recurrent episodes of anemia during the Fall and Winter of previous years. At admission patient tested positive for SARS-CoV-2 infection, without any respiratory distress.
Clinical Hypothesis: Lacunar ischemic stroke of the middle cerebral right artery due to episode of hemolytic anemia.
Diagnostic Pathways:
Laboratory studies presented 9.8 g/dL of hemoglobin, medium globular value of 101, unconjugated hyperbilirubinemia (5.33 mg/dL of indirect and 6.9 mg/dL of total bilirubin) DHL of 629 and positive combs test (IgG+, IgM +, C3c+, C3d +++). Head CT

 DOI: 10.12890/2022_V9Sup1

revealed not recent right frontal cortico-subcortical hypodensity and an adjacent hypodensity possible due to new acute ischemic event. Ultrasonography with doppler detected stenosis of 80% of right intern carotid artery.

Discussion and Learning Points: Hemolytic anemia due to cryoglobulins diminish the blood supply to the brain. In this case due to severe stenosis of the right intern carotid artery with severe hemodynamic compromise, when a hemolytic event occurs due to cold temperatures it results in cerebral ischemic events.

1468 / #EV0165

OBSERVATIONAL STUDY OF SUBARACHNOID HEMORRHAGES

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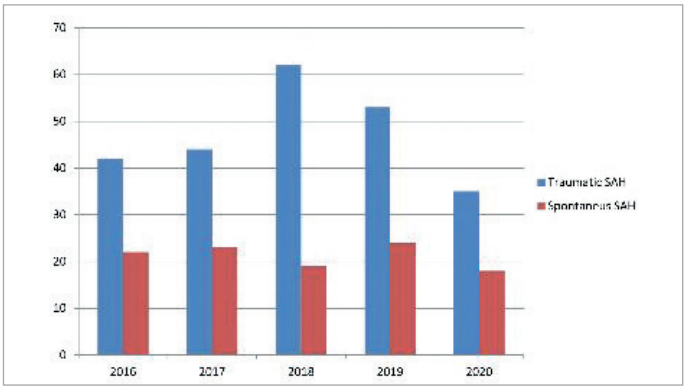
Background and Aims: SAH is charectised by sudden explosive headache, maximal intensity inseconds. The lack of clinical features distinguishing reliable between SAH and other causes of headache means that all patients with severe headache that presents in minutes needs to be investigated with CT±LP In our acute medicine unit many LP are done to try to exclude SAH, with the consequent delay of discharge of patients and side effects from LP. AIM: To analyse the number of SAH in our hospital, % of positivity with LP investigations, and determine if improvement needs to be made in management of sudden onset headache.

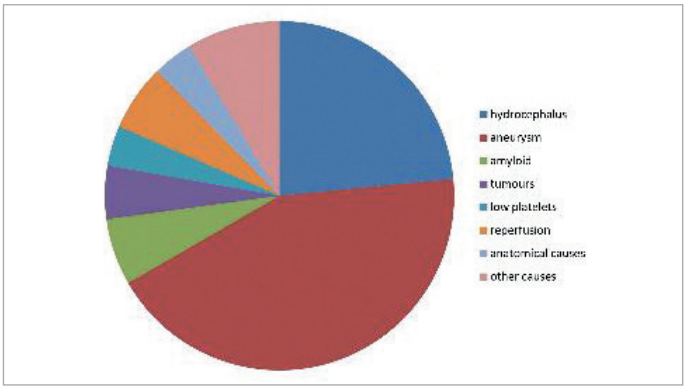
Methods: Retrospective review of all patients with SAH obtained by coding department between 2016-2020 ,and xanthocromia examples analysed by pathology between 2019-2020. Review of case notes of patients identified and contact of patients in some cases.

Results: In the literature around 3% of cases with normal CT scan will have positive xanthocromia, in our study in 2019 1.2% have real positive xanthocromia(0.6%false +ve), and in 2020 2.4% (2.4% false+ve). Only 1 patient in each year group had abnormal finding in the investigations: aneurysm in 2019 and vertebral dissection in 2020 (Figure).

Conclusions: Many LP performed during the years 2019-2020, with very low % of positive xanthocromia. Few patients with false positive xanthocromia required further investigations and transferred to neurosurgical centres. Our neurologist recommend: To look more carefully at the pre-test probability, e.g. history with the use of Ottawa rule as additional tool. In order avoid LP if negative 6 hours CTscan ,we need new guidelines from NICE.



#EV0165 Figure 1.



#EV0165 Figure 2: Cause/complications SAH2016-2020.

LP with normal xanthocromia:150		
LP with raised oxyhaemoglobin :11		
Diagnosis:	IIH	
	meningitis	
	multi-infacts	
	migraine=	2
	infection	
	2traumatic:local CTCA normal	
	3 trasfer to neurosurgery:normal	
LP with raised Bilirrubin: raised serum Bi :1		
LP with raised raised Oxyhaemoglobin and bilirrubin:		3
Diagnosis:	Alzheimer and hypothyroidism	
	2 transfer to neurosurgery:	
		1 normal
		1 Brain aneurysm:coiled

#EV0165 Figure 3: LP xanthocromia results 2019.

LP with normal xanthocromia:1 110 cases		
LP with raised oxyhaemoglobir 5 cases		
Diagnosis:	encephalitis	
	covid+sepsis	
	2 tension headache	
	1 transfer to neurosurgery::normal	
LP with raised bilirrubin: 2 cases		
Diagnosis: Muscular		
1 trasfer to neurosurgery:normal		
LP with raised raised Oxyhaemoglobin and bilirrubin:		6 cases
Diagnosis:	sepsis in astrocytoma with VP shunt	
	atypical meningitis	
	4 transfer to neurosurgery :3 normal	
		1 vertebral disecction:stent

#EV0165 Figure 4: LP xanthocromia results 2020.

DOI: 10.12890/2022_V9Sup1

2675 / #EV0166

SPACE-OCCUPYING BRAIN LESION WHOSE DIAGNOSIS REMAINS UNDETERMINED

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Case Description: A 57-year-old woman, previously healthy, came to the ER due to vision changes (blurred vision in the right eye) and headache, initially right retroorbital and later right hemicranial, with 1 week of evolution. Neurological examination without alterations, ocular funduscopy with blurring of the edges of the right papilla. No analytical relief changes. CT CE with right cortico-subcortical LOE with vasogenic edema causing a slight mass effect.

Clinical Hypothesis: CNS space-occupying lesions can be associated with few or even non-existent clinical signs and its etiology is very varied, which requires an exhaustive study.

Diagnostic Pathways: From the exaustive etiological investigation carried out, electromyography stands out, revealing "sensory and motor polyneuropathy of a predominantly axonal type and of mild/moderate severity". Remaining study without relevant findings. It was decided to maintain high-dose corticosteroids with clinical and imaging improvement (improvement of the edema but maintaining the lesion), with relapses when attempts were made to wean off corticosteroids.

Discussion and Learning Points: Extensive study (which included PET and brain biopsy) was inconclusive but allowed to exclude infectious, neoplastic or autoimmune etiology. Assumed immune-mediated inflammatory disease of the central nervous system, affecting the brain parenchyma (cortico-subcortical right parasagittal frontal lesion), right retrobulbar optic neuritis and peripheral nerve (PNP axon SM), cortico-responsive, of unknown etiology so far - probable neurosarcoidosis or neuromyelitis seronegative optics. Given the need for maintenance of a high dose of corticosteroid for symptomatic control, azathioprine was started.

1275 / #EV0167

ISCHEMIC STROKE IN PATIENTS PREVIOUSLY ANTICOAGULATED FOR ATRIAL FIBRILLATION

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Background and Aims: Oral anticoagulants have demonstrated to be effective in preventing atrial fibrillation-related strokes. The failure of direct oral anticoagulation (DOAC) is unexpected. The aim of this study was to try to understand the reasons for anticoagulation failure.

Methods: An observational retrospective study considered 129 patients that attended cerebrovascular diseases Clinic from January 2021 to July 2021. Analytical data regarding kidney function was collected. The inclusion criteria were adult patients, gender, anticoagulated patients, medical history and treatment adherence.

Results: Inclusion criteria were met by 13 patients. The mean age was 74.25 years. Seven patients were male (53.8%). In 5 cases (38.4%) patients had poor treatment adherence, 11 cases (84.6%) were taking cardiovascular drugs, 2 cases had procoagulant state and 1 patent foramen ovale. In all patients anticoagulated with anti-FXa DOAC, the dose was correctly adjusted for renal impairment.

Conclusions: Patients who suffer ischemic stroke despite anticoagulation, a cardioembolic event may be explained by poor treatment adherence and by the use of cardiovascular drugs affecting the activity of P-glycoprotein system. It is also reasonable to consider an underlying procoagulant state, and patients with renal impairment where a DOAC is not excreted as efficiently from the kidneys.

Sauer, R., Sauer, E., Bobinger, T., Blinzler, C., Huttner, H., Schwab, S., & Köhrmann, M. (2021). Adherence to Oral Anticoagulation in Secondary Stroke Prevention—The First Year of Direct Oral Anticoagulants.

Wessler, J., Grip, L., Mendell, J., & Giugliano, R. (2021). The P-Glycoprotein Transport System and Cardiovascular Drugs.

769 / #EV0168

GUILLAIN BARRÉ SYNDROME - ATYPICAL PRESENTATION

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Case Description: A 62-year-old woman, was admitted in the emergency room with a sudden onset of asthenia and dysphagia for both solids and liquids over the last 24 hours. She had no previous infections or drug exposures aside mRNA COVID-19 vaccination (2nd dose) in the last month. At admission, she was anxious and apart form that aspect her physical examination was unremarkable. Lab tests, Brain CT scan with angiographic evaluation were normal. She was kept under close observation and 12 hours after admission, she exhibited rapid onset flaccid tetraparesis with areflexia. Lumbar puncture was performed showing albumin-cytological dissociation. IV imunoglobunin was started and she was admitted into the ICU with the suspicion of rapidly progressive polyneuropathy – acute motor axonal neuropathy.

Clinical Hypothesis: Guillain-Barré syndrome, acute motor axonal neuropathy, myasthenia gravis, botulism.

Diagnostic Pathways: Lumbar puncture EMG.

Discussion and Learning Points: Acute motor axonal neuropathy (AMAN) is a rare and severe variant of Guillain-Barré syndrome.

 DOI: 10.12890/2022_V9Sup1

The syndrome typically presents as a progressive flaccid symmetric paralysis with areflexia,often causing respiratory failure. Cerebrospinal fluid is acellular,and elevations of protein content occur in the second or third week of illness.Electrodiagnostic studies show normal motor distal latencies and limb conduction velocities,but reduced compound muscle action potential amplitudes. In the majority of cases, AMAN occurs following Campylobacter jejuni infection. Although the exact pathological mechanism is not fully understood, AMAN is associated with the presence of antiganglioside antibodies (primarily, anti-GM1/GD1a). Recovery may be prolonged in patients with extensive axonal degeneration. This case has its importance due to the fulminant presentation in a previously immunocompromised patient and without signs of previous gastrointestinal pathology.

785 / #EV0169

SEIZURES, NOT EVERYTHING IS WHAT IT LOOKS LIKE

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Case Description: Male, 76 years old, retired, autonomous to daily activities. Goes to the ER after first episode of focal seizure. According to wife, in the past year the patient has had some confusion and irritability periods. After evaluation by the neurologist team, was discharged with eslicarbamazepina and an external appointment for study. After nine days, returnes to the ER with nausea, vomit and abnormalities in walking in the last three days.

Clinical Hypothesis: Strutural lesion, metabolic causes, toxics.

Diagnostic Pathways: The neurological exam highlighted slightly nistagmus to the right, appendicular ataxia in four members. The blood analysis showed a severe hiponatremia (sodium of 108 mmol/L). The brain CT-scan showed no alterations. After evaluation, the neurologist team concluded the sodium levels where due to iatrogenia and was admitted to correct it. The eslicarbamazepina was switched to levetiracetam. In the internal medicine ward, with normal sodium levels, the patient kept the same behavior so was decided to do another brain CT-scan which came normal. He was discharged after four days with a sodium of 129 mmol/L. In the external appointment, the sodium levels were within normal range but the behavior alterations kept the same so we re-observated the images of previous CT-scans and saw a possible lesion not described yet. With a brain MRI an expansive lesion in the temporal and posterior parietal region appeared and suggested a glial lesion. After biopsy, a glioblastoma IDH-Wildtype stage four was diagnosed.

Discussion and Learning Points: The authors want to highlight the relevance of reviewing the exams when the symptoms don't corroborate the reports.

974 / #EV0170

PHARMACOLOGICAL INTERVENTIONS FOR HYPERTENSION AND HYPERCHOLESTEROLEMIA IN ISCHEMIC STROKE PATIENTS: TWO DECADES OF IMPROVEMENT

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Background and Aims: Each year, more than 110,000 people suffer a stroke in Spain. Secondary prevention is the key to prevent new events. We investigated how the treatment of hypertension and hypercholesterolemia has changed in the last decades.

Methods: The medical records of patients discharged for ischemic stroke from the three main hospitals in Seville (Spain) during three periods were reviewed: 1999-2001; 2014-2016; 2019-2020.

Results: We included 1806 patients. 753 were women (41.6%). The medium age was 69.7 (±10) years. Making a comparison between periods, patients are now older and they have a higher frequency of hypertension (67.3% vs 73.8% vs 75.4%; p=0.0001) and dyslipidaemia (32.4% vs 48.9% vs 48.1%; p=0.0001). Hypertension was the most prevalent vascular risk factor in all periods. At discharge, more antihypertensive drugs were used progressively (56.4% vs 69.1% vs 84.7%; p=0.0001). Also, more statins were used (18.7% vs 86.9% vs 89.4%). There is a progressive increase in the number of antihypertensive drugs (mean 0.94±0.8 vs 1.6±1.05 vs 2.1±0.5 drugs p=0.0001) and of high intensity statins (11.1% vs 55.4% vs 77.9% p=0.001).

Conclusions: In the last few decades, hypertension and dyslipidemia have played a greater role in patients with ischemic stroke. Nevertheless, there has been a clear improvement in the management of hypertension and hypercholesterolemia in this population. Only time will tell us if this improvement translates into a better prognosis in these patients.

1587 / #EV0171

ENCEPHALITIS AND SEIZURES AFTER THE 1ST DOSIS OF MRNA COVID VACCINE

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Case Description: A 62-year-old female health care provider presented with dysarthria, fixed gaze, and anhedonia. Her medical record was relevant for hyperthyroidism medicated with tiamazol, and COVID-19 vaccination 4 days prior. A head CT scan was performed with no evidence of acute cerebral lesions. The patient had a new onset of myoclonic seizure-like episode with a post-ictal state revealing cognitive and motor slowing, muscle spasms, and anterograde amnesia.

Clinical Hypothesis: An encephalopathy with epileptic activity was suspected. Due to the lack of personal history or substance abuse,

 DOI: 10.12890/2022_V9Sup1

infectious causes were tested. Moreover, the hypothesis of an immune mediated encephalitis triggered by the mRNA COVID-19 vaccine was considered.
Diagnostic Pathways: Blood tests revealed a mild increase on CRP. A lumbar puncture was accomplished. The liquor tested negative to both bacterial and viral pathogens. Auto-immune causes were eliminated. Electroencephalogram found slow theta waves, compatible with a seizure disorder. A head MRI revealed an hypersignal in FLAIR located in the anterior frontal left cortex. The patient started treatment with levetiracetam and corticosteroids with significant response. After eight months of follow-up, once every two months, the patient stopped antiepileptic drugs with full clinical and imagological recovery.
Discussion and Learning Points: The authors notified this case to the local health authority as a possible side-effect of mRNA COVID-19 vaccine. We believe this convulsive encephalitis was possibly part of an immune process triggered by vaccination. A handful of other cases were reported with this type of vaccine.

2575 / #EV0172

LOWER LIMB AXONAL MONONEUROPATHIES AS SEQUELAE OF COVID-19: A CASE REPORT

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Case Description: A 61-year-old gentleman with well-controlled diabetes and hypertension was recently treated for COVID-19 pneumonia with supplemental oxygen and positive pressure ventilation. He presented with left-sided foot weakness two weeks after recovering from COVID-19. On examination, he had normal bulk and tone and power of 4/5 in proximal and distal muscles of bilateral lower limbs except for ankle dorsiflexion on the left which was 2/5. He also had absent ankle and knee reflexes bilaterally with bilateral flexor plantar reflexes. The rest of the neurological examination was normal.
Clinical Hypothesis: Our differential diagnoses for the left foot weakness initially were either an acute mononeuropathy likely sciatic/peroneal or acute L5 radiculopathy. The presence of normal tone and non-progressive localized weakness was against the diagnosis of GBS. Since the patient had no back pain and his symptoms were localized to peripheral nerves sparing the sensory system no imaging of the spinal cord was done.
Diagnostic Pathways: Nerve conduction studies and electromyography revealed findings suggestive of acute bilateral tibial mononeuropathies at non-compressible sites that were moderate in degree electrically along with acute bilateral common peroneal mononeuropathies of axonal type localized proximal to the branch innervating the peroneus longus muscles bilaterally and severe in degree bilaterally. Relevant infectious and autoimmune workup to identify the cause of mononeuropathy was negative. Since diabetes was well-controlled and he had no intensive care stay his findings were presumed to be associated with resolving COVID-19 infection.
Discussion and Learning Points: Complications like mononeuropathies should be kept in mind in patients recovering from COVID-19 infection since timely diagnosis can improve clinical outcomes.

2080 / #EV0173

PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY IN A HIV PATIENT

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Case Description: The authors report a case of a 51-year-old male, with history of human immunodeficiency virus (HIV), not under antiretroviral therapy (ART); admitted to the emergency room with a one-month complaint of progressive left hemiparesis and limb ataxia (distal predominance), without other neurologic deficits.
Clinical Hypothesis: Progressive multifocal leukoencephalopathy (PML) Toxoplasmic encephalitis primary central nervous system (CNS) lymphoma.
Diagnostic Pathways: A cranioencephalic computed tomography revealed confluent hypodense white matter lesions in the right precentral gyrus, presumably of microangiopathic etiology. Serum quantification showed 157,584 copies/mL of HIV1 RNA and T lymphocyte population immunophenotyping revealed CD4 44/mm^3, CD8 428/mm^3, CD4/CD8 index 0.10; no other remarkable laboratory findings were stated. Due to neurologic worsening, brain magnetic resonance imaging was requested: “multifocal white matter lesions that may reflect subacute ischemic lesions, not excluding cerebral toxoplasmosis or progressive multifocal leukoencephalopathy (PML)”. Cerebrospinal liquid analysis was negative for herpes virus, toxoplasmosis and cryptococcal antigen but protein chain reaction was positive for polyomavirus JC (JCV). According to laboratory, clinical and neuroimaging features, the diagnosis of PML was established. Despite ART we witnessed a progressive worsening of neurologic deficits.
Discussion and Learning Points: PML is a rare demyelinating disease of the CNS, with a high mortality rate, that occurs almost exclusively in immunosuppressed individuals, caused by reactivation of JCV. There is no specific treatment for PML but in patients with HIV infection the initial strategy is ART, to improve/stabilize symptoms. This case highlights the role of ART in the prevention of severe opportunistic infections and the risks associated with its discontinuation.

 DOI: 10.12890/2022_V9Sup1

2018 / #EV0174

WHAT TRIGGERED A WAVE

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Case Description: Patient's age, occupation and past medical history: 45-year-old woman with drug allergy to sulpiride and suffers from irritable colon and scoliosis. No other diseases or regular medication. Presenting symtoms: She was evaluated by the emergency services due to intense muscle pain and a feeling of extreme contraction when she was at the beach. She presented with intense stiffness, pain, tiredness and later started with dark and foul-smelling urine. She was referred to our center with initial data compatible with rhabdomyolysis. She was discharged with good evolution but in the consultation review she persisted with high clinical and CK levels, so the study was extended and a definitive diagnosis was reached. Findings on examination: Normotensive. No fever. No neurological focality. PCA normal. Abdomen and extremities normal.
Clinical Hypothesis: McArdle disease.
Diagnostic Pathways: In blood test highlights CK in 345,299, creatinine 3 mg/dL, and hypertransaminasemia. Rest of biochemistry, hemogram, coagulation, venous blood gas analysis anodyne. Autoimmunity was negative. Chest X-ray, EKG, and abdominal ultrasound normal. Genetic study: PYGM (NM_005609.2) c.148CT producing a premature termination codon in exon 1 p.Arg50Ter.
Discussion and Learning Points: This is an autosomal recessive disease in which the PYGM gene for glycogen transport to muscle is mutated. It usually occurs in adolescents or young adults. It produces myalgias, fatigue, hyperCKemia, myoglobinuria and extreme fatigue on exercise. The diagnosis is suspected by clinical history. The Gold Standard is the genetic study. Muscle biopsy is only performed if the study is inconclusive. There is no specific treatment, good hydration and carbohydrate-rich diet are recommended.

2062 / #EV0175

FEVER, BLURRED VISION AND INSTABILITY

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Case Description: 58-year-old male, no known allergies. He suffers from treated hypertension and dyslipidemia. Presenting symptoms: he consulted for fever and vomiting for 5 days, starting later with double vision, gait instability, right palpebral ptosis and headache. No other symptoms reported. Findings on examination: Normotensive. No fever. Left facial paralysis with Bell's sign. Ophthalmoparesis with limitation of horizontal gaze to the left. Generalized hyperreflexia. Ataxia of extremities and trunk. Rest of neurological and general examination without pathological findings.
Clinical Hypothesis: Acute rhombencephalitis of non-filiated etiology (most probably *Listeria*).
Diagnostic Pathways: In blood test highlights platelets 126,000 and creatinine 1.25. Rest of the blood test results were anodyne. Abnormal lumbar punction (leukocytosis and proteinoraquia). Negative microbiological study in spinal fluid and blood. Quantiferon negative. Chest X-ray and ECG normal. MRI with T2-flair signal alteration in bulb and protuberance and 5 mm region with ring enhancement at this level.
Discussion and Learning Points: Rhombencephalitis is a group of inflammatory diseases affecting the hindbrain (brainstem and cerebellum). Listeria is the most common cause but there are other wide variety of etiologies, including other infections, autoimmune diseases, and paraneoplastic syndromes. MRI scans were abnormal in 70-100% of cases depending of the etiology. In lumbar puncture, pleocytosis and protein rise stand out. It's recommend empiric therapy with ampicillin and acyclovir for all cases. The prognosis is poor and the treatment is only partially beneficial.

320 / #EV0176

VALACYCLOVIR NEUROTOXICITY IN THE ELDERLY

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Case Description: 80-year-old woman, with a history of CKD on dialysis, was brought to our emergency department due to disorientation and fever. Her daughter refers that last week came to emergency department because of appearance of a vesicular rash compatible with varicella-zoster virus. Therefore, she started taking valacyclovir 1 g every 8 hours. Two days later, she began with visual hallucinations, dysarthria and behavioral disturbances. Her daughter decided to stop new medication, the patient toke 5 pills of valacyclovir in total. They returned due to worsening of symptoms and fluctuation of the level conciousness at the last 48 hours.
Clinical Hypothesis: Main causes of acute confusional syndrome in elderly are infections (respiratory, urinary tract, central nervous system, dialysis fistula…), cranioencephalic trauma, systemic and metabolic alterations and drugs.
Diagnostic Pathways: Detailed history, neurological and systemic examinations were performed. Blood tests, urinalysis, SARS-CoV-2 PCR, chest X-ray, cranial computed tomography, and cerebroespinal fluid analysis were normal. The temporal relationship between valacyclovir administration and disease onset indicated possible causality. The patient had a favorable evolution after withdrawing valacyclovir and several sessions of hemodialysis. She recovered completely in 5 days.
Discussion and Learning Points: The acute confusional syndrome

 DOI: 10.12890/2022_V9Sup1

is a frequent clinical feature of acute diseases or drug toxicity in the elderly, with high morbidity and mortality. Valacyclovir undergoes first-pass hepatic metabolism, being eliminated almost entirely by the renal route. Among its less frequent adverse effects is neurotoxicity. It is essential to adjust drug doses in all patients with CKD. The correct valacyclovir dosage adapted to renal function would have been 6 times lower in our case.

832 / #EV0177

A RARE PRESENTATION OF A VERY COMMON ILLNESS: DÉJERINE-ROUSSY SYNDROME

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Case Description: A 47-year-old woman, presenting with progressive neuropathic pain described as a persisting electrical shocking sensation, after recent extensive ischemic stroke of the right anterior circulation of cardioembolic etiology (interauricular communication) - ASPECTS 5 - with dysarthria and left hemiparesis sequelae, despite endovascular therapy. MRI showed an extensive infarction of the median anterior cerebral artery territory, with lenticulo-capsulo-caudate, peri-thalamic, posterior frontal and parietal cortical-subcortical involvement.
Clinical Hypothesis: Central post-stroke pain, also known as Déjerine-Roussy Syndrome (DRS).
Diagnostic Pathways: Despite low dose amitriptyline and opioid therapy, dysesthesia and allodynia persisted, without any evidence of other causes of pain, such as nociceptive and peripheral neuropathy. Patient was assessed by the Physical and Rehabilitation Medicine team, who raised the hypothesis of a Déjerine-Roussy like syndrome, assuming probable suprathalamic pathways' blood supply compromise due to the presence of peri-thalamic lesions. Amitriptyline was gradually increased with a favourable outcome and the patient was referred to a physical rehabilitation centre.
Discussion and Learning Points: DRS is a severe, rare and often persistent (sometimes life-long) form of neuropathic pain. It develops after infarction (ischemic or hemorrhagic) of the thalamic nuclei, more commonly in the ventroposterolateral thalamus. Attainment of other spinothalamic pathway areas can result in Déjerine-Roussy-like syndromes, which are highly underdiagnosed. Symptoms frequently start within the first six months, but can develop years after the event. Diagnosis is clinical after imaging confirmation of a concordant central nervous system lesion. Although many pharmacological (mostly antidepressants, anticonvulsants and opioids) and non-pharmacological options are available, some patients may be particularly challenging, benefiting from a multidisciplinary approach and regular pain consult follow-up.

1222 / #EV0178

PHARMACOLOGY DIAGNOSIS AND MYASTHENIA GRAVIS

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Case Description: An 80-year-old man with high blood pressure and dyslipidemia presents to the Ophthalmology Service with right blepharoptosis and occasional diplopia since a month ago. After ruling out acute ophthalmological pathology, he was referred to the Internal Medicine Service to study III pair incomplete injury.
Clinical Hypothesis: Space-occupying injury, stroke, myasthenia gravis (MG).
Diagnostic Pathways: The patient presented blepharoptosis with medial rectus muscle paresis of right eye. Imaging of brain and brain stem were made (computed tomography and angioMRI) and they ruled out space occupant lesions or vascular injury. Antibodies against acetylcholine receptor (AAchR) were requested. After monitoring the patient, a diagnostic test for myasthenia gravis was performed infusing neostigmine (1g i.v.) followed by atropine (0.5 mg i.v.) Fifteen seconds after the administration spontaneous eye opening was observed. After one day, AAchR was positive.
Discussion and Learning Points: About half of patients with MG onset with blepharoptosis and diplopia. However, generalized abnormal fragility is more frequent. Diagnosis depends on positive AAchR, as well as exclusion of space-occupying or vascular injury. This case demonstrates that the pharmacological diagnosis, upon suspicion, can be made before the results of laboratory tests, as well as the multifaceted capacity of the internist to diagnose and treat a pathology often exclusive to neurologists, ophthalmologists and ENT specialists.

1429 / #EV0179

SEIZURES AS AN INITIAL SYMPTOM

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Case Description: An 84-year-old woman, institutionalized, hospitalized in July 2021 for seizures in an infectious context of UTI, discharged asymptomatic, but two weeks later started again with generalized tonicoclonic attacks, progressively worsening. The dose of levetiraztam was increased without effect. She was taken to the ER for prostration in the context of convulsive crises and had a generalized tonic-clonic crisis on entry. Diazepam, phenytoin perfusion, levetiracetam and valproic acid for maintenance of partial seizures of the right upper limb.
Clinical Hypothesis: Seizures etiology varies according to age, with

 DOI: 10.12890/2022_V9Sup1

half of the cases in adults being caused by brain trauma, stroke, abstinence from alcohol and cancer, and half due to unknown cause.

Diagnostic Pathways: On admission with leukocyturia and urobilinogen, mild metabolic alkalosis, hipoxemia, hypokalaemia and hyperlactacidemia. Analysis with leukocytosis, neutrophilia and elevated CRP, elevated benzodiazepines and Levetiraztam dosage at therapeutic levels. CE-CAT at admission and after 24 hours with an overlapping hypodense focal area, poorly delimited, in the left frontal region, without other changes. She was hospitalized for convulsive seizures in an infectious context/*de novo* brain injury, left frontal cerebral ischemic infarction vs occupying brain space lesion, mild hypokalaemia and nosocomial respiratory infection, with hypoxemic respiratory failure. Good evolution in hospitalization, uneventful. Brain magnetic resonance was not performed due to the patient's frailty.

Discussion and Learning Points: The main objective in evaluating a seizure is to identify whether it resulted from a treatable systemic process or intrinsic dysfunction of the central nervous system and, if the latter, the nature of the underlying brain pathology.

1770 / #EV0180

ORBITAL APEX SYNDROME: DIAGNOSTIC APPROACH IN AN OLD MAN

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Case Description: 78-year-old man with pre-diabetes and hypercholesterolemia presented with horizontal diplopia on leftversion and bilateral frontal headache with acute onset. Elevation of inflammatory parameters (IP) without fever or B symptoms, and two asymptomatic parietal CT scan hyperintensities were found. He was admitted to the Internal Medicine Ward to complete study.

Clinical Hypothesis: Initially, he was diagnosed with left oculomotor nerve microangiopathic neuropathy, however, after four days, he developed left orbital apex syndrome (OAS) due to involvement of the second, third, fourth and sixth cranial nerves (CN). Considering the elevation of IP and his evolution, inflammatory (autoimmune versus paraneoplastic disease) and neoplastic etiology were considered.

Diagnostic Pathways: Brain and orbit MRI excluded vascular etiology and space-occupying lesions but demonstrated inflammatory alterations of the left third CN. Lumbar puncture opening pressure and cerebrospinal fluid (CF) were normal, excluding infectious etiology. The CF study was negative for neoplastic cells, including immunophenotyping. Body CT scan excluded occult neoplasia. Immunological blood tests were negative. Temporal artery biopsy showed arthritis, but no giant cells were observed. Positron emission tomography excluded systemic involvement. During the investigation, regarding the high suspicion of inflammatory etiology, he started corticotherapy with significant clinical and laboratory improvements.

Discussion and Learning Points: Despite the challenge of a definitive diagnosis, we prove preferential involvement of small and median cranial vessels, which can guide the next investigation. This case of vasculitis presenting with OAS in an old man emphasizes the need of extensive differential diagnosis, the diagnostic approach and also the importance of a multidisciplinary team work towards a more efficient and quick diagnosis.

329 / #EV0181

MALIC FIRST PHASE: MANAGEMENT OF LIPID-LOWERING TREATMENT IN PATIENTS WITH ISCHEMIC STROKE IN CATALONIA, SPAIN

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Background and Aims: LDL-C is the causative agent of atherosclerosis, its levels are directly related to increased cardiovascular mortality. Lipid-lowering treatment is effective in reducing risk of new events, although the achievement of the therapeutic objectives is far from the current recommendations. In Catalonia, we do not have any registry on the management of lipids in stroke patients. To know the strategy used for the prescription of lipid-lowering treatment in patients with atherothrombotic acute ischemic stroke in hospital care in Catalonia, Spain.

Methods: Observational, epidemiological, cross-sectional, multicenter study of in-hospital care, performed via a 33-question survey addressed to professionals who care for acute stroke patients.

Results: 36 different centers participated with 159 responses. 64% of professionals prescribe lipid-lowering treatment based on LDL-C levels. 53% consider a LDL-C target <70 mg/dL, 26% <100 mg/dL and 18% <55 mg/dL. 48% refer follow the ESC/EAS 2019 Guidelines (LDL-C target <55 mg/dL), 34.6% the Catalan Society of Neurology guidelines (LDL-C target <100 mg/dL), 15% do not follow any guide and 1% follow the Spanish Society of Neurology guidelines (published in December 2020, LDL-C target <55 mg/dL). 8% use a lipid-lowering therapeutic planning tool. Less than 10% are derived to a Lipid Unit. In the last year, only 34% of the professionals received any training on dyslipidemia.

Conclusions:It is necessary to improve knowledge of guidelines on dyslipidemia, to define therapeutic objectives, and use therapeutic planning tools. The joint evaluation by a Lipid Unit could improve the management of lipid metabolism in patients with atherothrombotic ischemic stroke.

 DOI: 10.12890/2022_V9Sup1

1302 / #EV0182

ATRIAL FIBRILLATION BURDEN IN ACUTE ISCHEMIC STROKE

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Background and Aims: Atrial fibrillation (AF) is a major modifiable risk factor for ischemic stroke, associated with greater baseline neurological impairment and poor clinical outcomes. Our aim was to determine AF burden in patients with acute ischemic stroke in a 255-bedded university teaching hospital.

Methods: This was a one-year retrospective study of patients with a discharge diagnosis of acute ischemic stroke. Patients were identified from the hospital stroke registry. Clinical and laboratory data was collected from hospital databases. AF was confirmed by reviewing all R tests and telemetry reports. Data was entered into Excel and analysed using descriptive statistics.

Results: The mean (SD) age of all 87 patients reviewed was 75 (10) years. The male:female ratio was 2:1. Sixty-seven percent (n=54) had dyslipidaemia, 58% (n=47) had hypertension, 42% (n=35) were ex-smokers, 24% (n=20) were current smokers, 24% (n=20) had diabetes,15% (n=12) had prior TIA ,15% (n=12) had prior CVA, and 12% (n=10) had IHD. Of 94% monitored, 33% (n=27) had AF and 15% (n=12) had newly diagnosed AF. Ten completed an echocardiography, all of which demonstrated a dilated left atrium (LA). Fifty-five maintained sinus rhythm throughout, of which thirty-one percent (n=17) had dilated LA on echocardiography.

Conclusions: AF burden was 3 times greater than expected. One-third of patients in sinus rhythm had dilated LA which warrants more prolonged monitoring to look for paroxysmal AF. Larger scale studies are necessary to confirm or refute this unexpected high burden of AF.

646 / #EV0183

CRYOGLOBULINEMIA AND HEPATITIS C VIRUS INFECTION DIAGNOSED DURING THE ADMISSION OF A PATIENT WITH ACUTE ISCHEMIC STROKE

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Case Description: A 75-year-old woman with hypertension treated with irbesartan and hydrochlorothiazide. She refered loss of strength in left side of body for two days. She also commented she had several skin lesions on lower legs for a few months. At physical examination: Glasgow Coma Scale 15/15. BP 130/90 mmHg. 97% oxigen saturation. HR 60 bpm. Afebrile. Cardiorespiratory auscultation: rhythmic, no heart murmur, conserved lung ventilation. Normal abdominal examination. Panniculitis in both lower legs without edema nor thrombosis signs. Normal cranial nerves examination. Loss of strenght in left arm and leg (sensitivity was conserved).

Clinical Hypothesis: We present a patient with suspicion of acute ischemic stroke and panniculitis, so we have to study firstly, the cause of both and afterwards, to check whether they are related or not.

Diagnostic Pathways: Blood test: hemogram, coagulation, ESR, glucose, creatinine, RCP, ions, transaminases, proteinogram and rheumatoid factor were normal. HIV, hepatitis B virus serology, ANA, ANCA, HLAB51 were negative. Hepatitis C virus serology and cryobulins had positive result. Viral load of hepatitis C virus 192,994 UI/ml . Skin biopsy: septal panniculitis. Cranial TC-scan: lacunar ischemic stroke of right hemisphere. MR Angiography of supraaortic vessels: narrowing of 50% at left carothid bulbus.

Discussion and Learning Points: We concluded that the patient had an atherothrombotic right hemispheric stroke and a septal panniculitis secondary to cryoglobulinemia related to unknown hepatitis C virus infection. We cannot affirm but also discard both processes are connected. However, it is well proven that chronic infection of hepatitis C virus increases cardiovascular risk.

2582 / #EV0184

QUETIAPINE IN SHEEP`S CLOTHING

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Case Description: A 69-years-old man affected by Parkinson's Disease treated with pramipexol, rasagiline, amantadine and levodopa/carbidopa/entacapona from long time. Consulted because of visual hallucinosis, thus interrupting introducing quetiapine. He was attended after ten days because of behavioural alterations. He showed hemodynamic stability, fever and adequate basal oxygenation. The patient was disoriented without neurological focus, with low axial rigidity and difficulty for both active and passive limbs mobilization.

Clinical Hypothesis: An akinetic-rigid syndrome was considered.

Diagnostic Pathways: Analytically did not show anemization, renal function was preserved and no hydroelectrolytic abnormalities were present. Showed isolated elevation of CK. Urine analysis did not reveal signs of infections. Thoracic X-ray was normal. Microbiological isolations were negative and cerebrospinal fluid analysis did not show abnormalities. Piperaciline/tazobactam was empirically initiated but after three days remained disoriented with worsening of the stiffness. A computed tomography did not reveal pathology. A neuroleptic malignant syndrome was suspected, thus intensive hydration and dantrolene were administrated. After five days he recovered level of awareness, normalized CK levels and fever disappeared. He was put on discharge after optimization of antiparkinsonian drugs.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: The increasing incidence of neurodegenerative pathologies as Parkinson's disease has generalized the use of quetiapine as symptomatic treatment. Second-generation neuroleptic agents have a good profile of security but they can produce fatal adverse effects, thus all clinicians should be aware of these dangerous complications.

1806 / #EV0185

CAVERNOUS SINUS SYNDROME DUE TO UROTHELIAL CARCINOMA METASTASIS

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Case Description: Male, 60 years old, with urothelial carcinoma and multifocal acinar adenocarcinoma of prostate, presented in the emergency with a 2-months of daily right fixed periorbital pain, associated with vertical diplopia. He progressively developed partial right ptosis, complete right ophthalmoplegia and sensory loss on the ophthalmic branch of trigeminal cranial nerve. Two weeks before admission, the patient also developed fever, initially attributed to urinary infection. However, despite antibiotherapy, the fever persisted. Propionibacterium acnes presented in blood cultures. Cerebral CT reported right temporopolar extraxial lesion. Clinically, these findings represent a cavernous sinus syndrome (CSS), etiology undefined.

Clinical Hypothesis: The major clinical hypothesis in this case were metastatic lesion and cerebral empyema. Other possible causes of CSS include inflammatory, vascular, and infectious processes.

Diagnostic Pathways: Regarding the cerebral empyema hypothesis, patient started treatment with ceftriaxone and metronidazole. CSF was not suggestive of infection. Brain and orbital MRI confirmed the extraxial lesion and showed its extension to the cavernous sinus and to sphenoid sinus. A biopsy of the sphenoid sinus lesion confirmed it was metastasis of urothelial carcinoma. Thoracoabdominal CT scan showed pulmonary and bone metastases. Due to clinical worsening, veno-TC was performed and confirmed sinus venous thrombosis (SVT), motivating hypocoagulation.

Discussion and Learning Points: CSS is a diagnosis challenge and difficult to manage. Pursuing an etiological diagnosis leads to adequate treatment. In this case, the patient started corticotherapy with pain relief and will start palliative cranial radiotherapy. It is important to be aware of CSS complications, namely vascular ones, as they can need specific and urgent treatment, such as SVT.

1821 / #EV0186

UNUSUAL PRESENTATION OF A PARANEOPLASTIC NEUROLOGICAL SYNDROME

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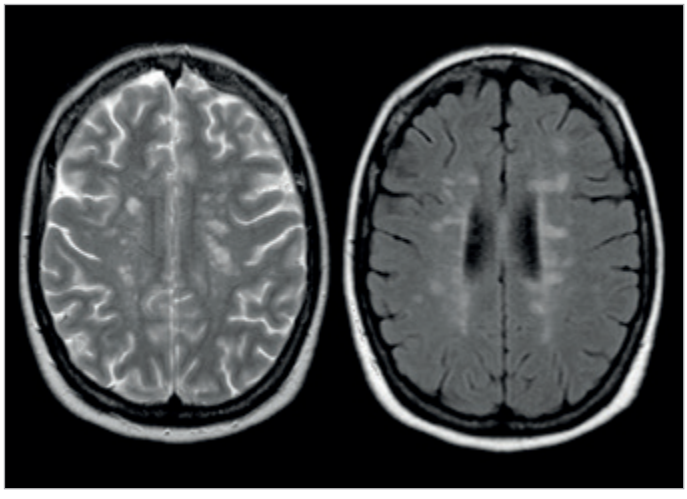
Case Description:

A 43-year-old woman with stage III carcinoma of the left breast operated on, admitted due to disorientation of 2 days of evolution. Physical examination revealed intense agitation, left arm paralysis and left miosis. Routine laboratory tests were unremarkable and head CT scan showed poorly defined hypodense lesions that in the head MRI was highly suspicious of an inflammatory/demyelinating process (Figure).

Clinical Hypothesis: Before any inflammatory/demyelinating process of the nervous system, the following differential diagnosis should be considered: demyelinating diseases, neuroinfections, autoinflammatory diseases, vasculitis and autoimmune diseases.

Diagnostic Pathways: The study was completed with a thoracic, abdomen and pelvic CT scan that demonstrated tumor infiltration of the left pectoral muscle and a lumbar puncture was performed where the positivity for anti-Hu antibody stood out. Due to the presentation of the patient's condition, the high diagnostic sensitivity of onconeuronal antibodies and the absence of other causes that explained the lesions and symptoms, the diagnosis of paraneoplastic encephalitis secondary to anti-Hu antibodies was reached.

Discussion and Learning Points: The paraneoplastic neurological syndrome is an entity that affects less than 0.01% of cancer patients, originated as a consequence of an autoimmune process. This case presents an infrequent association of breast cancer linked to a paraneoplastic neurological syndrome due to anti-Hu antibodies, a situation that occurs in < 1% of cases of paraneoplastic neurological syndrome associated with breast cancer. These syndromes can precede the diagnosis of the tumor in 80% of cases and represent the cause of death in 30-50%, therefore, an early diagnosis and treatment must be made to improve the prognosis.



#EV0186 Figure 1.

 DOI: 10.12890/2022_V9Sup1

1831 / #EV0187

CONFUSIONAL SYNDROME AND SUDDEN BILATERAL BLINDNESS

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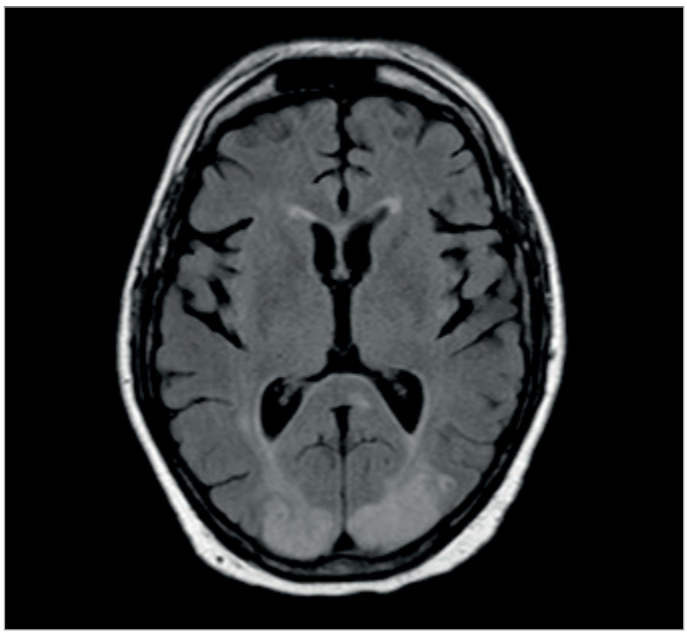
Case Description: A 76-year-old man with adenocarcinoma of the colon operated on, ileostomy carrier, admitted due to a confusional state accompanied by headache. In physical examination was notable the presence of temporal-spatial disorientation. Routine laboratory tests and head CT scan were unremarkable except by the existence of hyponatremia (117 mEq/L).

Clinical Hypothesis: Before any acute confusional syndrome, a differential diagnosis should be considered between brain diseases, systemic diseases (hydroelectrolytic alterations and infectious, endocrine, hematological, digestive, renal or cardiovascular diseases), poisonings, withdrawal syndromes and drug intake.

Diagnostic Pathways: Due to findings compatible with severe hyponatremia with symptoms due to probable digestive losses, therapy with hypertonic saline solution was started, reaching levels of natraemia of 131 mEq/L. After that, the patient reported sudden and bilateral loss of visual acuity, which is why a new head CT scan and MRI was requested, which showed poorly defined areas of vasogenic edema in the corticosubcortical region of both occipital lobes. This led to the diagnosis of posterior reversible encephalopathy syndrome (PRES), possibly due to sudden oscillations in osmolarity by natraemia levels (Figure).

Discussion and Learning Points: PRES is recognized as a neurological condition characterized by headache, confusion, seizures and loss of vision with typical neuroimaging where reversible subcortical vasogenic edema is observed mainly in parieto-occipital regions. It is a benign and mostly reversible disease, especially once the causative factor is known and eliminated. In conclusion, this text describes a rare case of acute confusional syndrome and sudden bilateral blindness in order to incorporate this entity in the differential diagnosis of acute neurological conditions.



#EV0187 Figure 1.

1379 / #EV0188

CATASTROPHIC INTRAVENTRICULAR HEMORRAGE

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Case Description: Male patient, 56 years old, autonomous, with background of heavy smoking and drinking. Hospitalized in the ICU in 2018: hypoxic pneumonia with mechanical ventilation; alcohol derived hepatic steatosis and intoxication. The patient was taken to the Emergency Services after being found fallen in the bathroom with Glasgow coma scale 3 and fixed mydriasis.

Clinical Hypothesis: Seizure, metabolic encephalopathy, AVC.

Diagnostic Pathways: The brain CAT scan showed extensive intraventricular acute hemorrhage with lateral right ventricle augmentation, with impact in the other ventricular cavities e discrete swollen of right periventricular parenchyma. Acute deviation of contralateral of medium line structures. Base cisterns partially erased. No signs of active hydrocephalus, but with bilateral ventricular enlargement. Pneumatized anthropo tympanic cavities. After contacting neurosurgery, we assumed a catastrophic intraventricular hemorrhage and a bad prognosis with notice for no surgery intervention, intoxication and mixed acidemia. The patient was prescribed for swollen and symptomatic intracranial hypertension. He remained comatose and was prescribed after showing hipertermia and probable pneumonia by aspiration. Although all medical care in some days the patient was deceased, as expected.

Discussion and Learning Points: Brain hemorrhage is a stroke in which there is an hemorrhage around or inside the brain due to

 DOI: 10.12890/2022_V9Sup1

a blood vessel rupture, it can increase brain pressure and acute symptoms. This case shows the importance of recognizing, avoiding and treating risk factors like trauma, alcohol abuse, smoking that may lead to death. CAT scan is used for diagnosis of ischemic or hemorrhagic strokes. The stroke is a medical emergency in which detection and intervention is paramount for the diagnosis.

205 / #EV0189

FULMINANT INTRACEREBRAL HEMORRHAGE

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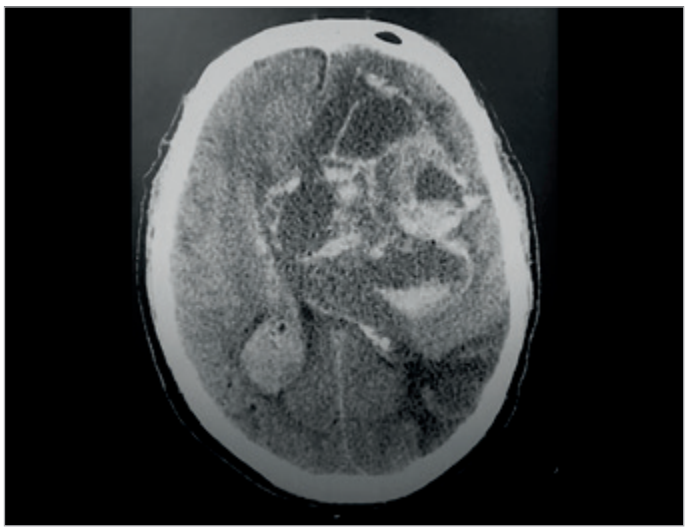
Case Description: An 82-year-old male, autonomous, with past medical history of arterial hypertension and auricular fibrillation medicated with apixaban was admitted with fever of unknown origin. During the internment he developed a sudden altered state of consciousness (GCS 3).

Clinical Hypothesis: Ischemic vs hemorrhagic stroke.

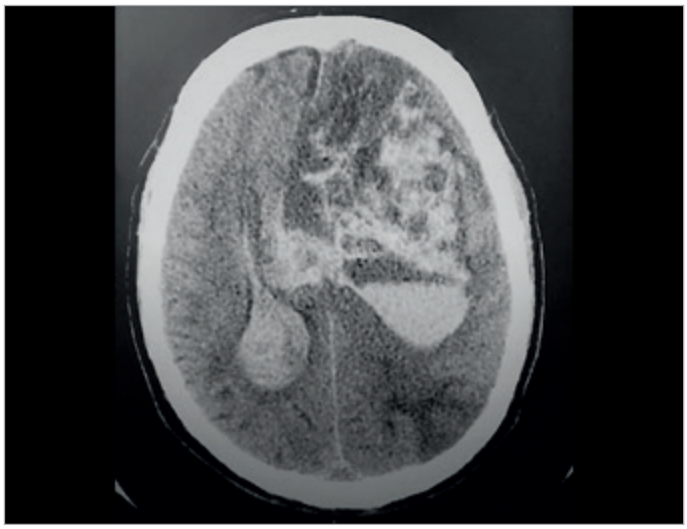
Diagnostic Pathways: He was immediately intubated and a cranial computed tomography scan was performed. The cranial CT scan revealed a large acute left parenchymal hemorrhage with deviation of the median structures, subfalcine herniation, ventricular flooding with prominence of the right lateral ventricle and hydrocephalus (Figure 1 and 2).

The case was discussed with neurosurgery and there was no indication for surgery due to the extension of the hemorrhage. The patient did not improve the neurological status after removing sedoanalgesia. After informing the family, the patient was orientated to the organ transplant unit. Liver and corneas were donated.

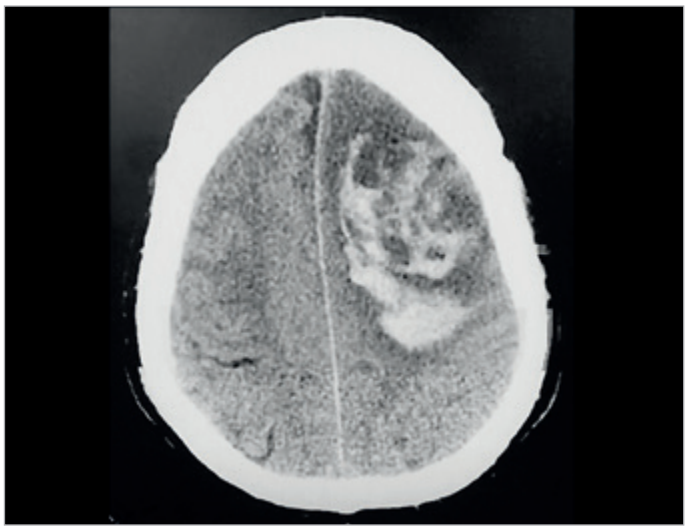
Discussion and Learning Points: The case illustrates the necessity to act immediately in the scenario of sudden alteration of consciousness. Although, the negative outcome for the patient, the rapid acting of the emergency team led to the preservation of the vital organs.



#EV0189 Figure 1.



#EV0189 Figure 2.



#EV0189 Figure 3.

DOI: 10.12890/2022_V9Sup1

1206 / #EV0190

MULTIPLE CRANIAL NEUROPATHIES SECONDARY TO LYMPHOMATOUS INFILTRATION OF THE CENTRAL NERVOUS SYSTEM (CNS)

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Case Description: 83-year-old women with a 6-month diagnosis of diffuse large B-cell non-Hodgkin lymphoma (DLBC-NHL) with hepatosplenic involvement. She was submited to a low-dose R-CHOP regimen, with good clinical and imagiological response, and ended the 6th cycle 2 weeks prior to admission. She first described blurred and dark vision on awakening, and neurological examination showed bilateral hypovision, limitation of adduction, supra and infraversion of the right eye and binocular diplopia. Two days later, she reported left facial pain, initially only in the maxillary region, but later distributed throughout the hemiface, with hyposthesia in the territory of the left trigeminal nerve.
Clinical Hypothesis: Cerebrovascular disease, toxicity to chemotherapy, lymphomatous involvement of the CNS.
Diagnostic Pathways: CT: No evidence of acute vascular injurie or suspicious thickenings or enhancements in the optic nerves. Nodular lesion adjacent to the inferior wall of the left transverse sinus. MRI: Expansive lesion located in the left trigeminal cistern extending to the prepontic cistern, to the cavernous sinus and through the foramen ovale, orbital apex and cisternal segment of the right third pair, suggestive of secondary infiltration in the lymphomatous context.
Discussion and Learning Points: Although the way lymphoma cells migrate to CNS is not understood, they are thought to disseminate by hematogenous spread, direct extension from adjacente bone marrow infiltration or centripetal growth along neurovascular bundles. Meningeal involvement may be a complication of non-Hodgkin lymphoma, and it may occur as a primary presentation or a relapse. This clinical case ilustrates the tipical presentation of a DLBC-NHL realapse as a multiple cranial neuropathies.

1665 / #EV0191

GUILLAIN-BARRE SYNDROME VARIANT AMAN - FAST AND CHALLENGING - ABOUT A CLINICAL CASE

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Case Description: Guillain-Barré syndrome (GBS) is the most common cause of acute flaccid tetraparesis and usually manifests up to 6 weeks after a precipitating event, such an infeccition or vaccination. We describe the case of a 53-year-old man with no relevant history or usual medication who went to the hospital for a five-day condition characterized by dysphagia for solids and decreased muscle strenght conditioning and important and incresed functional limiting. The day he went to the hospital he was no longer able do dress independently. He recognized the onset of symptoms as after the end of the vaccination for COVID-19. On objetive examination with provided tetraparesis, decreased muscle strength at the level of the upper limbs, unable to perform a test with extended arms or Minghazzi and with absent biceps, patellar and aquilian reflexes. GSB was immediately raised and instituted immunogobulin. He performed electromyography with compatible neurophysiological criteria for the hypothesis under axonal variant AMAN - acute motor axonal neuropathy. GBS is an extremely heteregeneous disease with clinical variants and specific pathophsiology. Except for the Millher-Fisher variant, it is characterized by the absence of osteotendinous reflexs and flaccid ascending muscle of variable magnitude. The electromyogram helps in the diagnosis and identification of the variant. Axonal forms are associated with faster clinical evolution and great neurological aggressiveness.
Clinical Hypothesis: Guillian-Barré syndrome.
Diagnostic Pathways: Electromyography, serologic tests
Discussion and Learning Points: Possible association with anti-COVID-19 vaccine.

2309 / #EV0192

SINUS VENOUS THROMBOSIS AS THE FIRST CLINICAL SIGN OF A MENINGIOMA

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Case Description: A 53-year-old female with history of menstrual migraine and depression, under sertraline and alprazolam, presented to the emergency room with holocranial headache (described as a feeling of pressure) with five days of onset, associated with photophobia, phonophobia, vertigo and nausea.

 DOI: 10.12890/2022_V9Sup1

Physical examination only revealed hypertension (170/100 mmHg) and no focal neurological signs.
Clinical Hypothesis: Headache is a common manifestation of multiple differential diagnosis, including migraine, cerebral venous thrombosis, intracranial lesions, subarachnoid hemorrhage, meningitis or encephalitis, giant cell arteritis, and others.
Diagnostic Pathways: Contrast-enhanced cranioencephalic CT scan (venous phase) was performed, revealing an extra-axial expansive lesion in the superior longitudinal sinus, with venous invasion and local bone demineralization. After discussion with Neurosurgery, a meningioma with venous invasion and consequent venous thrombosis of the longitudinal sinus was assumed, and the patient was hospitalized for further study and therapeutic guidance.
Discussion and Learning Points: Meningioma is often an asymptomatic, benign and slow-growing lesion, whose clinical presentation depends on its location, size, and associated complications. Cerebral venous thrombosis (CVT) may be associated with states of hypercoagulability and presents as a headache with subacute course. Although neoplasms are a hypercoagulable state, the development of venous sinus thrombosis by direct vascular invasion by a meningioma does not occur often. Timely recognition and diagnosis is essential for the correct therapeutic approach, which may include surgical treatment or radiotherapy of the primary lesion, as well as hypocoagulation for the thrombotic event.

2622 / #EV0193

THE PARANEOPLASTIC EATON-LAMBERT SYNDROME – WHEN LUNGS AND BRAIN COLLIDE

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Case Description: A 68-year-old male was admitted to the ER department in September due to proximal weakness lasting 1 month, beginning proximally and extending distally, hoarseness, difficulty swallowing, and unstable gait. In the previous month, he had been admitted multiple times due to unexplained hyponatremia, bowel obstruction, urinary retention, symptomatic hypotension, or bradycardia. He had known hypertension, COPD, and active smoking (140 packs-year). Since August, he was being studied for a right hilum lung mass, which had proven inconclusive on EBUS, and was awaiting mediastinoscopy.
Clinical Hypothesis: Paraneoplastic syndromes are systemic effects that are not directly related to the tumour or its metastases, but rather to overproduction of key enzymes or hormones, or due to compromise of cellular immunity response. Diagnosis is often challenging since besides being relatively rare, the clinical manifestations sometimes precede a formal diagnosis of neoplastic disease.
Diagnostic Pathways: Neurological exam showed symmetric tetraparesis and reduced deep tendon reflexes. EMG and Cervical CT scans were unremarkable. Antibody panel revealed the presence of anti-CV2, anti-SOX1 and anti-P type voltage-gated calcium channel antibodies.
Discussion and Learning Points: Eaton-Lambert syndrome (ELS) is an extremely rare neurological syndrome that manifests with proximal muscle weakness, bulbar and autonomic dysfunction, and abolished reflexes. Voltage-gated calcium channel antibodies are the hallmark for diagnosis. Immunosuppression is indicated with IV immunoglobulin, corticosteroids or azathioprine. 50% of all ELS are malignancy-related, most of which are small cell lung carcinomas (SCLC). Further workup on this patient revealed SCLC metastasis on endobronchial biopsy of lung adenopathy. Immunoglobulin was administered with remarkable improvement of neurological dysfunction.

1296 / #EV0194

MARCHIAFAVA-BIGNAMI DISEASE

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Case Description: Male, 52 years old, smoker, and heavy drinker, no other known relevant medical history. He lived alone. The firefighters brought him to the Emergency Department (ED) after finding him fallen unconscious and malnourished in his house.
Clinical Hypothesis: Convulsive crisis, hypoglycemia, aspiration pneumonia, malnourishment.
Diagnostic Pathways: The patient presented at the ED scoring ten in the Glasgow Coma Scale, with horizontal nystagmus, and desaturated (SpO2 89%). The analytic study showed elevated reactive C Protein (170 mg/L) and ferritin (567.36 ng/mL). An arterial blood gas test revealed hypoxia (61 mmHg) and hyperlactatemia (2.3 mmol/L). The head CT scan documented a hypodensity of the callous body, suggesting a demyelination process, later confirmed by MRI as Marchiafava-Bignami disease, which explained the neurological symptoms. The desaturation was assumed as aspiration pneumonia, and treated with antibiotics, with mild improvement. During hospitalization, dysphagia was verified and Otorhinolaryngology evaluation showed a lesion, later diagnosed as an invasive oropharynx and supraglottic epidermoid carcinoma. The patient developed airway obstruction, was submitted to surgical tracheostomy. Despite the effort, did not survive due to advanced-stage cancer.
Discussion and Learning Points: Marchiafava-Bignami disease is a rare entity, defined by demyelination of the corpus callosum, and most frequent in alcoholics in adult life. Its cause is unknown, but nutritional deficiencies (especially B12 vitamin deficiency) and alcohol consumption seem to have a potential role. The case

 DOI: 10.12890/2022_V9Sup1

reported was probably triggered by alcoholism and cancer-caused deficiencies.

Marchiafava Bignami disease | Genetic and Rare Diseases Information Center (GARD) – an NCATS Program (nih.gov)

1266 / #EV0195

"CHEST PAIN, A FORM OF PAF PRESENTATION..."

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Case Description: A 62-year-old woman with arterial hypertension, dyslipidemia and family history of unspecified cardiac pathology was admitted in the Emergency Department due to sudden chest pain, with na intensity of 7/10 and irradiation to the left upper limb. Electrocardiogram had a complete left branch block and ST elevation in V1 and V2.

Clinical Hypothesis: The most likely diagnosis was acute myocardial infarction. An emerging cardiac catheterization was performed, which did not show angiographically significant coronary disease.

Diagnostic Pathways: Transthoracic echocardiogram revealed slight impairment of left ventricular systolic function and conserved function of the right ventricle. Cardiac magnetic resonance imaging showed pathognomonic findings of hypertrophic cardiomyopathy and severe left ventricular hypertrophy with apical predominance. After a multidisciplinar review of the case a genetic study was performed that detected the pathogenic variant c.148G>A p.(Val50Met) in the TTR gene, confirming the genetic etiology of family amyloid polyneuropathy (PAF).

Discussion and Learning Points: PAF associated with the pathogenic variant p.(Val50Met) usually manifests between the 3rd and 5th decade of life. However, a type which typically presents with paresthesia or weakness in the legs, instead of autonomic symptoms, and cardiac hypertrophy or more rarely only with cardiomyopathy, as opposed to atrioventricular block, usually presents after the age of 50. PAF has a very variable presentation which can be challenging for diagnosis. As a degenerative, progressive and invariably fatal disease, the diagnosis should be as early as possible since there are treatment options available, but only for the early stages of the disease.

2058 / #EV0196

SUBACUTE SENSORY-MOTOR POLYNEUROPATHY: A DIAGNOSTIC CONUNDRUM

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Case Description: A 44-year-old woman with a history of gastric bypass surgery and chronic severe alcohol consumption, recently discharged from an alcohol rehabilitation program on disulfiram 250 mg/day, was admitted to the emergency department for respiratory failure. In the preceding weeks, she noticed the sequential development of ascending symmetric lower and upper limb weakness, lower limbs' paresthesias, dysphonia, dysphagia and urinary and fecal incontinence. Neurologic evaluation revealed a flaccid, areflexic and proximal-predominant tetraparesis with respiratory muscle weakness, bilateral peripheral facial and bulbar palsy, multimodal sensation deficits and suspected dysautonomia.

Clinical Hypothesis: These findings supported the diagnosis of a subacute length-dependent sensory-motor and autonomic polyneuropathy, later confirmed by electromyography. Acute sensory-motor axonal neuropathy (AMSAN) variant of Guillain–Barré Syndrome and disulfiram neurotoxicity were equated has diagnostic hypotheses.

Diagnostic Pathways: Nutritional deficiencies, metabolic derangements and infectious, autoimmune and neoplastic diseases were excluded.

Discussion and Learning Points: Although AMSAN cannot be excluded, the temporal relationship with disulfiram, the absence of proteinorrachia, negative serum antiganglyoside antibodies and the rapid and almost complete recovery support the disulfiram neurotoxicity hypothesis. Despite being rare and having a risk of toxicity dose- and duration-dependent, there are reports of neurotoxicity with low dose disulfiram. Our patient exhibited an aggressive course with short latency and fast progression on a low daily dose which leads us to equate that subclinical pre-existing alcohol-related nerve injury played an enhancement role on disulfiram toxicity.

 DOI: 10.12890/2022_V9Sup1

2679 / #EV0197

N-METHYL-D-ASPARTATE RECEPTOR (NMDAR) ANTIBODY ENCEPAHLITIS RELATED TO OVARIAN LESION: PRESENTATION AND MANAGEMENT

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Case Description: A 19-year-old female presented to the Emergency Department complaining of cognitive impairment, dysarthria and right hemifacial clones. Her family also noted that there have been unreasonable changes in her personality. The facial clones had progressively worsened and frecuently affected awareness despite the recent initiation of antiepileptic drugs, so she was admitted for hospitalization. Initial tests were normal incluiding an electroencephalogram and regular blood tests.

Clinical Hypothesis: This patient clinical presentation is consistent with encephalitis, either infectious or autoinmune.

Diagnostic Pathways: Brain imaging showed no alteration. A cereblospinal fuild (CSF) test was performed with normal results for leukocites and proteins, but later on it showed positivity for anti-NMDAR antibodies. Thus we performed a complete body scan finding a left ovarian lesion, suspicious of teratoma. The patient was treated with high-dose steroids and gamma-globulins to no effect, so we advocated for surgycal removal of the ovarian-lesion. The patient cognitive status improved greatly after the surgery.

Discussion and Learning Points: Encephalitis are a challenging diagnose, and we should not rely on the initial CSF test to rule it out. Some of them are related to various neoplastic lesions, and by removing them the clinical status can greatly be improved.

1494 / #EV0198

"IS THE RADIO INSIDE MY HEAD?"

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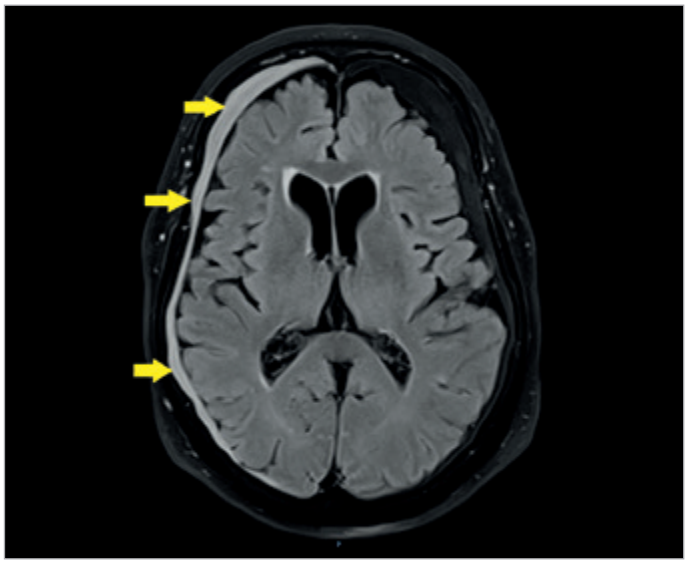
Case Description: An 84-year-old woman with presbycusis and atrial fibrillation anticoagulated with acenocoumarol was admitted for gastrointestinal bleeding. The patient reported having suffered a mild head trauma two weeks earlier, a few days after she began to hear music constantly, "as if she had a radio inside her head" playing songs from her childhood with absolute fidelity. She reported no psychiatric history.

Clinical Hypothesis: In patients with acute-onset musical hallucinations (MH) and no mental disorders, organic brain abnormalities should be ruled out.

Diagnostic Pathways: Cranial MRI showed a subacute/chronic right frontotemporal subdural haematoma (Figure), supporting the diagnosis of MH secondary to haemorrhagic stroke. A conservative approach was adopted. She was discharged several days later, with MH persisting but with less intensity.

Discussion and Learning Points: MH are more common in women over 60 years of age, with hearing deficits and obsessive-compulsive traits. In a 2015 review including 393 cases, the most frequent causes were psychiatric and neurological disorders, while focal brain lesions accounted for only 9%. There are descriptions in the literature of patients suffering from MH secondary to temporal lobe strokes. In his work "The Man Who Mistook His Wife for a Hat", Oliver Sacks relates the experiences of two octogenarian women who suddenly presented with the same clinical picture as our patient. In both of them he found high electroencephalographic activity in the temporal lobes compatible with "musical epilepsy". Penfield described that 3% of patients with temporal lobe epilepsy suffer MH, the culprit area being in the superior temporal gyrus, near the point associated with "musicogenic epilepsy".



#EV0198 Figure 1.

107 / #EV0199

CAVERNOUS SINUS SYNDROME IN A PATIENT WITH CAVERNOUS SINUS MENINGIOMA AND INTRACEREBRAL HEMORRHAGE

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Case Description: A 92-year-old female with hypertension, presented to the emergency department with a sudden right fronto-parietal headache. Physical examination showed severe hypertension (190/105 mmHg). During examination the patient suddenly developed left hemiparesis, left central facial palsy and

 DOI: 10.12890/2022_V9Sup1

right periorbital edema. The right periorbital edema worsened and the patient develop right internal and external ophthalmoplegia.
Clinical Hypothesis: Cavernous sinus syndrome.
Diagnostic Pathways: A CT of the head showed an intraparenchymal right temporo-opercular hematoma with subfalcial herniation and right cavernous sinus meningioma.
Discussion and Learning Points: The cavernous sinus is an osteo-dural meningeal compartment located on each side of the sella turca. It consists of a venous plexus, through which runs the internal carotid artery, its sympathetic plexus, the abducens (VI), oculomotor (III), trochlear (IV) and the ophthalmic (V1) and maxillary (V2) division of the trigeminal nerve. The cavernous sinus syndrome (CSS) is the constellation of signs and symptoms resulting from the lesion of these neurovascular structures. In this case, the patient had an undiagnosed meningioma of the cavernous sinus that became symptomatic and caused CSS after the development of intracranial hemorrhage causing an increased intracranial pressure. External ophthalmoplegia occurred due to involvement of III, VI and IV nerves. Internal ophthalmoplegia due to lesion of parasympathetic fibers of III, causing mydriasis, or due to loss of sympathetic fibers from the short ciliary nerves, resulting in miosis. Periorbital swelling occurred due to impairment of venous sinus drainage. Horner syndrome may occur due to lesion of the peri-carotid sympathetic plexus and facial sensory symptoms due to lesion of V1 and V2 nerves.

212 / #EV0200

MULTIPLE MIMICS AND A WRONGFUL ISCHEMIC STROKE DIAGNOSIS

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Case Description: A 78-year-old female presented to the Emergency Department after two generalized tonic-clonic seizures (GTCS), with a repeat episode at admission. Anticonvulsants were started, without recurrence of seizure activity. Physical examination was remarkable for central right facial palsy, right hemiparesis with brachial predominance and expression aphasia. Blood tests showed metabolic lactic acidosis, rhabdomyolysis, hyperthyroidism and hypokalemia. Head Angio-CT without alterations.
Clinical Hypothesis: Acute ischemic stroke.
Diagnostic Pathways: Head CT performed after 48 hours was unremarkable. Neurological symptoms completely resolved 72 hours after the acute event. The patient remained unable to abduct her shoulder due to glenohumeral joint dislocation, which was reduced. Head MRI 7 days after the acute event was unremarkable. After the exclusion of ischemic lesions, antiplatelet therapy was suspended.
Discussion and Learning Points: Stroke mimics are conditions that present with acute neurological deficits simulating a stroke. The most common causes include: seizures, functional disorders, migraine, metabolic disturbances and tumors. In this case three different entities simultaneously contributed to mimic a stroke: Todd's paralysis, which lasted for more than 24 hours and lead to the wrongful ischemic stroke diagnosis, the endocrine-metabolic disturbances, which might have exacerbated/prolonged the syndrome, and the glenohumeral dislocation, which might have caused an incorrect interpretation of the brachial weakness. Todd's paralysis is a neurological abnormality characterized by temporary weakness after a seizure, with an average duration of 15 hours. It's more common after a GTCS and in the elderly, just like in the case presented. The complete and spontaneous reversal of symptoms and the absence of MRI alterations, excluded the initial ischemic stroke diagnosis.

1775 / #EV0201

MALIGNANT CEREBRAL INFARCTION: ABOUT A CLINICAL CASE

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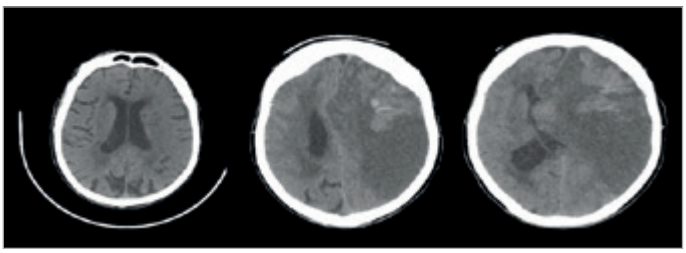
Case Description: A 94-year-old female, with prior history of hypertension, dyslipidemia, heart failure of multifactorial etiology, non-hycoagulated atrial fibrillation due to the high degree of dependence and high risk of falling and benign neoplasia of the rectum (villous tumor), presented to the emergency room in the context of stroke. At admission with right hemiparesis, labial commissure deviation and expression aphasia. NHISS 20. Normotensive and normocardic. Arrhythmic cardiac auscultation and pulmonary auscultation with diminished murmur on the right. Without analitic changes.
Clinical Hypothesis: Stroke with hemorrhagic transformation.
Diagnostic Pathways: Angio-CT showed left frontotemporoparietal cortico-subcortical parenchymal hypodensity, suggestive of an acute ischemic lesion and spontaneous hyperdensity of the M1 segment of the left MCA, in relation to an endoluminal thrombus. Ischemic stroke admitted, clinically left TACI in dependent status. After a discussion with neuroradiology, with indication for conservative treatment and surveillance. During the 2nd day of hospitalization with worsening of the general condition. Control CT scan showed a severe increase in cytotoxic edema of the ischemic lesion in the territory of the left ACA and ACM (malignant infarction) with foci of minor hemorrhagic transformation in its sinus. Severe molding of the left lateral ventricle with entrapment of the right lateral ventricle atrium and active ependymal transudation. This irreversible situation evoluted badly, becoming into a patient death under comfort measures (Figure).
Discussion and Learning Points: We describe a clinical case of rare complication in strokes, however with a high mortality rate due to its large territorial extension and increased intracranial pressure, leading to death in 80% of cases.

 DOI: 10.12890/2022_V9Sup1



#EV0201 Figure 1.

1723 / #EV0202

CLINICAL PREDICTORS OF ALZHEIMER'S DISEASE IN A COHORT OF ADULTS WITH DOWN SYNDROME: A RETROSPECTIVE STUDY

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Background and Aims: Alzheimer's disease (AD) is the main comorbidity of adults with Down syndrome (DS), since all will eventually develop it with age sooner or later – thus, DS is considered a model for AD without the bias of atherosclerotic damage, absent in this population. Our goal is to find determinants of dementia in these individuals.
Methods: Retrospective cohort study of adults with DS who had been screened for AD in our clinic between 2016 and 2018. We studied the relation of demographic, clinical and biochemical data to the severity of dementia (defined by DSM-V) adjusted by age, using ordinal logistic regression. Baseline intellectual disability was assessed by the Dementia Screening Questionnaire for Individuals with Intellectual Disabilities (DSQIID).
Results: The mean age of the 120 subjects included was 48.6 years and 45.8% were women. 66 had received special education and 72 had been functionally independent. 46 (38.3%) had some degree of cognitive impairment: in half of those it was mild, while 5 had advanced dementia. Only behavioral disorders (OR 2.72; 1.14-6.49) and leucocyte count (OR 1.41; 1.11-1.78) were significantly associated with age-adjusted dementia. We did not find a significant association between any indirect measures of cognitive reserve (education, occupation, DSQIID) and the stage of dementia.
Conclusions: Behavioral changes and leucocyte count could work as AD predictors in DS – the latter supports the inflammatory hypothesis of neurodegeneration. We found no protective effect of cognitive reserve. Further research is needed to clarify this matter and better understand the natural history of AD.

2228 / #EV0203

AN UNCOMMON PRESENTATION OF AUTONOMIC NEUROPATHY

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Case Description: A 63-year-old male presented with progressive weight loss, diffuse spontaneous twitching, hair loss, generalized extremity pain, and lightheadedness when standing for the past six months. Physical exam revealed decreased muscle bulk and tone, pansensory loss including distal extremity pain and temperature gradient, absent vibration and proprioception, and decreased effort tolerance.
Clinical Hypothesis: The skin biopsy demonstrated a significant reduction in small nerve fiber density, leading to the diagnosis of idiopathic small fiber neuropathy (iSFN). We present an unusual case of idiopathic small fiber neuropathy, which has yet to be reported in a patient of Hispanic/Latino ethnicity.
Diagnostic Pathways: There is a lack of established diagnostic criteria for iSFN. The most common diagnostic tests include quantitative sensory testing, skin biopsy to assess intraepidermal nerve fiber density, corneal confocal microscopy, laser evoked potential, contact heat evoked potential, and autonomic function testing that confirms the presence of SFN. Diagnostic evaluation of the patient excluded diabetic neuropathy, paraneoplastic syndromes, amyloidosis, autoimmune causes, and hereditary sensory autonomic neuropathy.
Discussion and Learning Points: Our patient was ultimately diagnosed with idiopathic small fiber neuropathy. Studies demonstrate that IVig is a safe and effective treatment for patients with iSFN. Unfortunately, the patient was unable to obtain IVig treatment due to cumbersome insurance requirements. Rather, we tried symptomatic treatment with adequate relief of orthostatic complaints. Future research evaluating the etiology of small fiber neuropathy would elucidate the prevalence of iSFN in diverse patient populations and prevent advanced disease.

1160 / #EV0204

DIAGNOSTIC YIELD OF BRAIN MRI IN AN ISCHAEMIC STROKE COHORT AT A UNIVERSITY TEACHING HOSPITAL

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Background and Aims: Neuroimaging plays a key role in the diagnosis and further management of ischaemic stroke. The aim of this study is to quantify the diagnostic yield of brain MRI in ischaemic stroke, in a 255-bedded University Teaching Hospital.
Methods: A retrospective study was completed using data extracted from Hospital Inpatient Enquiry (HIPE), regulated by the

 DOI: 10.12890/2022_V9Sup1

Irish National Audit of Stroke (INAS) and the radiology database over a one year period. All patients discharged with a diagnosis of ischaemic stroke were included. Data was entered onto an excel spreadsheet and analysed using descriptive statistics.
Results: The mean(SD) age of all 87 patients screened was 76(10) years. The male:female ratio was 2:1. Sixty-seven percent (n=54) had dyslipidaemia, 58% (n=47) had hypertension, 42% (n=35) were ex-smokers, 24% (n=20) were current smokers, 24% (n=19) had diabetes, 17% (n=13) had atrial fibrillation, 15% (n=12) had prior TIA, 15% (n=12) had prior CVA, and 12% (n=10) had IHD. Sixty-four percent (n=56) had brain MRI in addition to CT. 66% (n=37) had additional findings which affected clinical management. Findings included multiple vascular territory strokes, acute previously undiagnosed stroke, cerebral amyloid angiopathy and AV malformation.
Conclusions: In this population of patients, representative of patients with ischaemic stroke, brain MRI changed clinical management in over two-thirds. Brain MRI should be considered for all patients presenting with acute ischaemic stroke.

1818 / #EV0205

RECURRENT SYNCOPE - A CLINICAL CHALLENGE

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Case Description: A 48-year-old male presented to the emergency room (ER) with syncope episodes for 7days, lasting ~10", some associated with tonic-clonic movements, sphincter incontinence and vomiting, witnessed by his family. Patient's known medical history: invasive, poorly differentiated hypopharyngeal carcinoma for 2 years (submitted to surgery, tracheostomy and co-adjuvant chemoradiotherapy), primary hypothyroidism taking levothyroxine, chronic liver disease, active ethanolic habits and ex-smoker (12.5 pack/years). The physical examination revealed a heart rate (HR) of 54 bpm, right eye anisocoria and horizontal nystagmus in extreme gaze bilaterally. Therapy with levetiracetam was started. During hospitalization, he had episodes of presyncope with bradycardia and hypotension, and one syncope episode with hemodynamic changes complicated by seizures. An orthostatic correlation was established.
Clinical Hypothesis: Epilepsy is the first clinical diagnosis to be hypothesized, but patient's history of hypopharyngeal carcinoma should prompt consideration of a possible local recidive, as a cause of autonomic dysfunction due to carotid sinus invasion.
Diagnostic Pathways: Analysis revealed thrombocytopenia and hepatobiliary dysfunction. ECG showed synus bradycardia(HR 56 bpm). A 24-hour-Holter recorded episodes of extreme bradycardia (HR~25 bpm) and sinus pauses (longest of~22"). EEG and brain CT were normal. A brain/cervical MRI documented a tumor mass on the right side of the neck, compressing the carotid sinus. After definitive pacemaker placement, the patient remained asymptomatic, levetiracetam was withdrawn and he was discharged.
Discussion and Learning Points: One rare, but well-documented cause of recurrent syncope is the malignant invasion and compression of the carotid sinus by head and neck tumors, which leads to autonomic dysfunction with sinus bradycardia and transient arterial hypotension.

Toscano M, et al. Carotid sinus syndrome in a patient with head and neck cancer. *Cureus* 2020 **12**(2):e7042.

2514 / #EV0206

ANTIBIOTIC-INDUCED BEHAVIOURAL CHANGES – A THOUGHT FOR EPILEPSY IS MERITED

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Case Description: A 61-year-old man was admitted for severe anaemia and weight loss. He had no relevant history other than non-treated Helicobacter pylori-associated gastritis diagnosed four years earlier. Upper endoscopy and biopsy showed a gastric peptic ulcer. He was prescribed metronidazole, amoxicillin, and clarithromycin. The next day, he started having transient difficulty speaking and minor behavioural changes. Severity increased progressively, until he became delirious and nonfunctional, with shorter intervals without symptoms.
Clinical Hypothesis: As there was no history of neurologic disease, and changes were transient, we hypothesized this to be antibiotic-induced epilepsy.
Diagnostic Pathways: An electroencephalogram performed on the second day of therapy confirmed frontocentral epilepsy. Other causes were ruled out, including intercurrent infections, metabolic abnormalities, structural brain changes (visible on CT scan), and other drugs. Levetiracetam was started without effect, so sodium valproate was added, returning to his basal status over the next days. Considering likely metronidazole-induced encephalopathy, metronidazole was switched to levofloxacin; an MRI performed 7 days later was negative. After finishing eradication, anticonvulsants were stopped without recurrence of the neurological changes.
Discussion and Learning Points: Despite uncommon, neurotoxicity (including seizures) is a known side effect of many antibiotics. In this patient, de novo epilepsy had a temporal relationship to antibiotic therapy, there were no other likely causes, and changes subsided after stopping the antibiotics. As metronidazole was the most likely culprit, this was the only one to be switched. This case highlights the importance of considering adverse drug reactions as a cause for sudden neurologic changes.

 DOI: 10.12890/2022_V9Sup1

87 / #EV0207

STATUS EPILEPTICUS IN INTERNAL MEDICINE WARD – DIFFERENT PATIENTS THEREFORE DISTINCT APPROACH

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Background and Aims: Nonconvulsive status epilepticus (NCSE) diagnosis is increasing in the internal medicine ward. Its approach is not standardized and is based on convulsive status epilepticus guidelines (CSE). This study aims to characterize a population with status epilepticus on an internal medicine ward.

Methods: Retrospective study of all status epilepticus patients admitted in the internal medicine ward in Hospital Professor Fernando Fonseca between 2017 and 2020. Demographic, patient autonomy evaluated by the modified Rankin scale (mRS) and clinical background was collected. After admission, clinical information and data from electroencephalograms (EEG) were compiled. Bad prognosis was defined as mRS >4.

Results: 135 patients were admitted with status epilepticus with NCSE being the majority (75%). Median age was 72 (64-81) years-old and 58% were females. NCSE patients were older [74 (65-82) vs 66 (51-76) years-old, p=0.002] and had more cardiovascular risk factors (80% vs 62%, p=0.031), neurodegenerative disease (30% vs 12%, p=0.027) and chronic ischemic leukoencephalopathy (74% vs. 47%, p=0.005) when compared with CSE patients. All patients mortality was 51% with NCSE's being superior to CSE (56% vs 35%, p=0.033). In multivariate analysis, predictors of bad outcome were NCSE (OR 3.18 IC95% 1.13-8.55; p=0,028), neurodegenerative disease (OR 3.32 IC95% 1.07-10.36; p=0.038) and abnormal EEG (OR 3.10 IC95% 1.13-3.54; p=0.017).

Conclusions: Status epilepticus carries increased morbidity and mortality. The majority of SE patients present with cardiovascular risk factors and signs of chronic vascular dysfunction of the central nervous system. NCSE was predominant and was associated with a worse vital and functional prognosis.

1813 / #EV0208

ACCIDENTAL BARBITURATE INTOXICATION IN A NON-SUICIDAL INDIVIDUAL: A CASE REPORT

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Case Description: A 80-year old woman with a history of atrial fibrillation, heart failure, chronic obstructive pulmonary disease and essential tremor (ET) was brought to the Emergency Department (ED), because of a change in mental status. She was indeed mildly disorientated, somnolent with a slurred speech. Recently she had an arm fracture and seven days before was evaluated in ED for disorientation, attributed then, to opioids analgesic initiation. Laboratory findings now were unremarkable. The brain computed tomography performed was normal and neurological assessment reported flaccid paralysis.

Clinical Hypothesis: Our clinical hypothesis consisted of a neurological condition (such as stroke) or a metabolic cause that deregulated her.

Diagnostic Pathways: Her hospitalisation was complicated with aspiration, due to respiratory depression, requirining non-invasive ventilation, and hypotension/oliguria requiring inotropes (noradrenaline). Repeated brain CT was normal, while her level of consciousness was fluctuating. Finally, plasma toxicology reports proved toxic barbiturates level (>1000 ng/ml of primidone, prescribed for ET). The family reported no known intended suicidal attempt or overdosing, as confirmed by the patient after regaining full consciousness. The patient had no psychiatric history. Discontinuation was advised upon discharge.

Discussion and Learning Points: This is an interesting case that raises the awareness of unintended barbiturate overdose without dosing alterations, a clinical entity present in bibliography but rare because of barbiturates decline in use. Could this be a part of a drug-to-drug interaction (former opiates use) and impaired drug elimination or a case of the controversial phenomenon of drug automatism (recently reported in other hypnotics)?

31 / #EV0209

BEYOND DEPRESSION

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Case Description: A 57-year-old woman with no relevant medical history went to the emergency department for depression and self harm ideation for the past 3 days. While being evaluated by psychiatry, she presented with a fever of 38°c. At admission it was mentioned that 1 week prior she started with left ear pain, and was diagnosed with acute media otitis, starting treatment with Amoxicillin Clavulanate. She also had a mild frontal headache and nausea. On physical examination, it was found what seemed to be herpetic vesicles at the left external auditory canal (EAC), the rest of the physical examination and laboratory test were normal. The second day of admission the patient presented with peripheral facial left palsy.

Clinical Hypothesis: Herpetic encephalitis was suspected.

Diagnostic Pathways: A brain CT showed no alteration. A lumbar puncture was performed, the cerebrospinal fluid (CSF) had lymphocytic pleocytosis. CSF culture was negative, but viral DNA corresponding to varicella-zoster virus (VZV) was detected. She was diagnosed with herpetic encephalitis with Ramsay-Hunt

 DOI: 10.12890/2022_V9Sup1

Syndrome and started treatment with acyclovir with a favorable evolution.

Discussion and Learning Points: VZV encephalitis is an unusual manifestation of herpes zoster infection. In up to 41% personality changes are observed and imaging tests most of the time show no alterations. In this case it, stands out the unusual association of VZV encephalitis and RHS, with few cases described worldwide, this being the first case described in Spain. The coexistence of both clinical manifestations also denotes a worse prognosis, therefore it is essential to achieve an early diagnosis and treatment.

 DOI: 10.12890/2022_V9Sup1

AS04. COVID-19

305 / #EV0210

PREVALENCE AND SEVERITY OF SYMPTOMS AFTER CORONAVIRUS INFECTION: RESULTS OF LONG-TERM FOLLOW-UP

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Background and Aims: Assessment of type, prevalence and duration of residual symptoms after COVID-19 in recent studies is controversal because of differences in design. The aim of our study to assess the prevalence and severity of symptoms in the long-term period after COVID-19.

Methods: 195 COVID-19 convalescents were interviewed by phone at 143 (131-154) days after disease onset and 183 of them at 340 (325-351) days. At first interview they were asked about presence of 24 symptoms. At second one the severity of 24 symptoms was assessed with 10 points scale, the symptom considered as present if severity was >0.

Results: The subjective assessment of health status with 100-point scale before and after the COVID-19 was 95 (80-100) and 80 (70-96) points, p<0.001, at first interview; 90 (80-100) and 80 (60-90) points, p<0.001, at second one. At least one symptom was detected in 63% of respondents at the first interview and in 75% at the second, the number of identified symptoms was 2 (0-6) and 4 (1-8) respectively. The most frequent complaints were weakness/fatigue (31.3 and 47.5% of respondents), joint pain (31.3 and 47.5%) and dyspnoe/shortness of breath (31.3 and 43.2%). The severity of the symptoms at second interview was low: fatigue - 3 (0-6) points, shortness of breath - 0 (0-3) points; joint pain, weakness and dyspnoe – 0 (0-5) points each.

Conclusions: A decrease of health status can sustain for a long time after COVID-19. Symptoms persist in a significant proportion of convalescents, but their severity in the end of follow-up is quite low.

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DIAGNOSIS OF EOSINOPHILIC PNEUMONIA IN A SARS-COV-2 PANDEMIC

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Case Description: A 60-year-old male, with chronic sinusitis and tobacco use, presented to an emergency department (ED) with an acute onset of dyspnea, non-productive cough and fever. A diagnosis of moderate SARS-CoV-2 infection, with bacterial superinfection, was made. He was discharged home with antibiotic therapy. One month later, due to the persistence of symptoms, he went back to the ED. At admission, he didn't present any organ dysfunction. Blood analysis showed eosinophilia, and chest computer tomography scan showed bilateral diffuse, infiltrative changes. He was admitted in hospital for study of eosinophilic disease. Autoimmune pathology as well as viral or bacterial infections were excluded. Lung biopsy showed an eosinophilic pneumonia. Corticotherapy was started with symptoms and peripheral eosinophilia resolution, and imaging improvement.

Clinical Hypothesis: Acute Eosinophilic Pneumonia (AEP).

Diagnostic Pathways: The final diagnosis was made from lung biopsy.

Discussion and Learning Points: AEP is a rare disease characterized by eosinophilic infiltrates in the lung parenchyma, which may be idiopathic or secondary to several agents. Initially AEP was described as an acute respiratory disease of unidentified cause, but recently tobacco, drugs and infections were identified as etiologic factors. Two previous studies describe AEP after SARS-CoV-2 infection, raising the hypothesis that it is a predisposing factor for the development of the disease. With this case it is intended to highlight the importance of differential diagnosis between AEP in patients with pneumonia caused by COVID-19.

 DOI: 10.12890/2022_V9Sup1

164 / #EV0212

MANAGEMENT OF COVID-19 THROUGH SYMPTOMATIC TREATMENT USING HYPERTONIC SALINE AND IPRATROPIUM BROMIDE AND INCENTIVE SPIROMETRY BY REDUCING THE NEED FOR OXYGEN REQUIREMENT

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Background and Aims: COVID-19 is currently the new crisis. The authors thought of a method in their experience to effectively target congestion in COVID-19 patients by using a combination of ipratropium bromide, nebulized hypertonic saline, and incentive spirometry, in addition to the standard care provided. The idea is to stimulate the patient to remove the congestion by inducing cough and facilitate excretion and keep the alveoli patent to deliver sufficient oxygenation for the patients which ultimately decreases the requirement of oxygen.

Methods: The study took place at the General Hospital at King Saud Medical City in Riyadh Saudi Arabia. We compared two groups (case and control) where both received standard of care, and the case group also received nebulized supportive treatment which includes (ipratropium bromide 250 mcg, hypertonic saline 3% 3 ml nebulization both mixed in a face mask every 6 hours, and incentive spirometry). For both groups, we recorded age, gender, oxygen requirement, oxygen saturation, and whether the patient subsequently required intubation in the hospital. Then we blindly matched the case group to the control group.

Results: The primary outcome regarding the requirement of intubation showed no significance with a P-value=0.305. The secondary outcome in terms of length of stay was deemed non-significant P-value=0.1045.

Conclusions: In conclusion, the intent of the study is to generate a hypothesis for a larger sample size study by starting with this pilot study.

462 / #EV0213

COMPLICATIONS ASSOCIATED WITH MECHANICAL VENTILATION IN THE PATIENT WITH COVID-19 PNEUMONIA

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Case Description: We present the case of an 80-year-old male, former smoker since 20 years and arterial hypertension as medical history. Vaccinated according to the schedule against SARS-CoV-2 on 11 March 2021. He went to the emergency room due to cough with dyspnea, myalgia, and fever with hypoxemia. SARS-CoV-2 PCR is performed with positive result and is admitted at the observation area, requiring placement of non-invasive mechanical ventilation (NIMV).

Clinical Hypothesis: When the patient is admitted to hospitalization, he is in eupneic and conscious. Maintained blood pressure of 112/60 mmHg, heart rate of 80 beats per minute and 93% saturation with 100% FiO2. On examination, he presented a vesicular murmur preserved and arrhythmic heart and without tachypnea.

Diagnostic Pathways: Blood gas analysis showed a pH of 7.49, with pCO2 of 32.8 mmHg and pO2 of 42 mmHg. A chest X-ray showed in both lung bases an increased radiological density. An attempt was made to alternate BIPAP with a high-flow device, being impossible to maintain due to insufficient tolerance. In this context, there is an increase in the size of the thorax in relation to subcutaneous emphysema. Pressures were reduced and a new chest X-ray was performed where no pneumothorax images were observed, although there was severe radiological worsening. Finally, given the poor condition of the patient refractory to the measures it was decided to limit the therapeutic effort.

Discussion and Learning Points: The nemomediastinum and subcutaneous emphysema causes in patients with NIMV can be multifactorial. The lungs of COVID-19 patients present physiological characteristics similar to those with Acute Respiratory Distress Syndrome, and therefore susceptible to barotrauma.

923 / #EV0214

THROMBOSIS WITHOUT THROMBOCYTOPENIA AFTER SARS-COV-2 VACCINE

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Case Description: A 69-years-old woman with Sjögren syndrome under corticotherapy, and atrial fibrillation anticoagulated with apixaban, presented to the emergency department with a history of ecchymosis starting 6 days after Vaxzevria vaccination. Clinical examination showed diffuse ecchymosis and superficial vein thrombosis on the left leg. Blood works: normal platelet count and fibrinogen; D-dimer elevation. Patient was sent to follow-up consultation, maintaining apixaban and corticotherapy. A second episode of thrombophlebitis on the left thigh was seen a week later.

Clinical Hypothesis: Vaccine induced immune thrombotic thrombocytopenia (VIIT) was postulated.

Diagnostic Pathways: Etiologic study showed: no protein C/S deficit or factor V of Leiden/prothrombin mutations, normal platelet function studies and positive antiplatelet-PF4 antibodies. Abdominal magnetic resonance presented no signs of abdominal vascular thrombosis. Serial blood works without

 DOI: 10.12890/2022_V9Sup1

thrombocytopenia. VIIT-adapted 4Ts scoring system ratting 4. Anticoagulation and corticotherapy was maintained, with clinical resolution three weeks after the main event. The diagnosis of VITT-like syndrome was assumed.

Discussion and Learning Points: Adenoviral vector-based SARS-CoV-2 vaccination has been associated with thrombotic phenomenon and thrombocytopenia, leading to the advent of VITT. Thrombosis typically occurs five to ten days after vaccination with positive anti-PF4 heparin-independent antibodies identification. In the clinical case, the time relationship established between inoculation and thrombosis, together with the exclusion of other causes and the presence of anti-PF4 antibodies, in a patient not recently exposed to heparin and already anticoagulated, is highly suggestive of an etiologic relationship between the two. Much is still unknown about this entity, raising the possibility of this presentation being a spectrum of VITT.

1961 / #EV0215

ACUTE MYOCARDITIS IN A YOUNG COVID-19 POSITIVE WOMAN

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Case Description: A 19-year-old woman, without previous clinical history, appeared in emergency department mentioning fever with rigor, dyspnea and paroxysmal tachycardia. She was COVID-19 positive and ECG revealed V1-4 ST elevation and raised cardiac troponin without contractility disorders as described from bedside ECHO.

Clinical Hypothesis: Differential diagnosis included acute myocardial infraction, myocarditis, hypoxic injury, stress cardiomyopathy, right heart strain and systemic inflammatory response syndrome. Considering clinical presentation, ECG/ECHO findings and blood test results, the existing myocardial injury finally referred to acute myocarditis. Other non-infectious causes of myocarditis were excluded through clinical history, examination and laboratory findings.

Diagnostic Pathways: During hospitalization the patient received therapy with corticosteroids, beta-blocker and LMWH. Heart rhythm was continuously monitored and heart enzymes were tested everyday through blood exams. Gradually ECG and heart troponin levels were normalized and the patient remained afebrile. After her discharge with oral carvedilol medication, she was re-hospitalized three more times between the next 2 months because of tachycardia. ECG, ECHO and rhythm Holter without pathological findings. Heart MRI revealed basal inferior wall and intraventricular septum defects due to subacute myocarditis.

Discussion and Learning Points: COVID-19 may present with a broad spectrum of clinical cardiac presentations which may range from asymptomatic heart disease sudden cardiac arrest. Myocardial injury is common among COVID-19 patients but presence and magnitude of troponin elevation is associated with more severe disease and worse outcomes. Diagnosis of COVID-19 myocarditis may be easily dismissed especially in young patients, so they demand closer and longer observation to prevent serious and occasionally fatal complications.

670 / #EV0216

CLINICAL PREDICTORS OF MORTALITY AND CRITICAL ILLNESS IN PATIENTS WITH COVID-19 PNEUMONIA

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Background and Aims: Early identification of patients with COVID-19 who will develop severe or critical disease symptoms is important for delivering proper and early treatment. We analyzed demographic, clinical, immunological, hematological, biochemical and radiographic findings that may be of utility to clinicians in predicting COVID-19 severity and mortality.

Methods: Electronic medical record data from patients diagnosed with COVID-19 from November 2020 to June 2021 in the COVID-19 Department in the Galilee Medical Center, Nahariya, Israel, were collected. Epidemiologic, clinical, laboratory and imaging variables were analyzed. Multivariate stepwise regression analyses and discriminant analyses were used to identify and validate powerful predictors. The main outcome measure was invasive ventilation, or death.

Results: The study population included 390 patients, with a mean age of 61±18, and 51% were male. The non-survivors were mostly male, elderly and overweight and significantly suffered from hypertension, diabetes mellitus type 2, lung disease, hemodialysis and past use of aspirin. Four predictive factors were found that associated with increased disease severity and/or mortality: age, NLR, BUN, and use of high flow oxygen therapy (HFNC). The AUC or diagnostic accuracy was 87%, with a sensitivity of 97%, specificity of 60%, PPV of 87% and NPP of 91%. The cytokine levels of CXCL-10, GCSF, IL-2 and IL-6 were significantly reduced upon the discharge of severely ill COVID-19 patients.

Conclusions: The predictive factors associated with increased mortality: age, NLR, BUN, and use of HFNC . Identifying those with higher risks of mortality could help in early interventions to reduce the risk of death.

 DOI: 10.12890/2022_V9Sup1

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CLEARANCE OF THE SARS-COV-2 VIRUS IN AN IMMUNOCOMPROMISED PATIENT MEDIATED BY CONVALESCENT PLASMA WITHOUT B-CELL RECOVERY

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Case Description: Coronavirus disease (COVID-19) is a contagious disease caused by the severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2).

Clinical Hypothesis: This case report presents a patient treated with rituximab, and discusses the specific interventions conducted to eradicate the virus.

Diagnostic Pathways: The combined use of external anti-viral agents like convalescent plasma, IVIG and remdesivir successfully helped the patient's immune system to eradicate the virus without B-cell population recovery. In vitro studies showed that convalescent plasma is the main agent that helped in eradicating the virus.

Discussion and Learning Points: In conclusion, this case report presents a patient treated with rituximab, which depletes B lymphocyte population and, therefore, disables the production of neutralizing antibodies. The combined use of external anti-viral agents such as convalescent plasma and emdesivir, helped the patient's immune system in eradicating the virus, with no need for B-cell population recovery.

1579 / #EV0218

ACUTE MYOCARDITIS AND ENCEPHALITIS FOLLOWING MRNA VACCINATION AGAINST SARS-COV-2, A CASE REPORT

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Case Description: A 52-year-old man with history of long-standing human immunodeficiency virus was hospitalized with confusion, fever and asthenia that appeared one month after the administration of the Moderna COVID-19 (mRNA-1273) vaccine. He developed acute pulmonary edema without chest pain and a gradual deterioration of the encephalopathy.

Clinical Hypothesis: In the context of mass vaccination with mRNA vaccines against SARS-CoV-2 infection, multiple adverse events related to pathological inflammatory responses are being reported. Some of the most common are myocarditis and different manifestations of the neurological spectrum.

Diagnostic Pathways: Transesophageal echocardiography revealed left ventricular dilation with reduced LVEF (43%). Cerebrospinal fluid analysis revealed an increased white blood cell count (32 leukocytes/mm^3, 100% lymphocytes), one erythrocyte, elevated protein concentration (84 mg/dl), and reduced glucose value (38 mg/dl). Also, all microbiology tests were negative. Brain MRI showed enhancement of the cisternal segment of the right cranial nerves. Electroencephalography revealed diffuse background slowing. After receiving antibiotics and antivirals and giving concerns that the clinical situation could be related to an inflammatory reaction, we started a 5-day course of immunoglobulin infusion 400 mg/kg and 1 mg/kg of methylprednisolone. Concomitantly the patient had a significantly neurological improvement, fever resolution, and inflammatory markers normalization.

Discussion and Learning Points: We present a case of acute myocarditis and aseptic encephalitis that was temporarily related to COVID-19 vaccination. The patient had a similar range to other reports described, was also mildly affected and after the second dose of vaccine. Large prospective controlled studies are needed to further clarify their incidence and to establish a possible link between COVID-19 vaccines and acute inflammatory disorders.

1089 / #EV0219

MEASUREMENT OF ANTI-XA ACTIVITY IN PATIENTS WITH COVID-19 RECEIVING LOW MOLECULAR WEIGHT HEPARINE – A PROSPECTIVE STUDY

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Background and Aims: In patients with COVID-19 pneumonia, despite prophylactic anticoagulation, there is an increased rate of thrombotic event. The measurement of anti-Xa activity, used to determine therapeutic levels of low molecular heparin (LMWH) prophylaxis, may identify resistance to treatment.This study aimed to detect resistance to heparin in patients with COVID-19 pneumonia receiving LMWH.

Methods: Prospective observational study in patients with COVID-19, in whom anti-Xa levels were measured from 9/4/21 to 15/8/21.

Results: A total of 74 patients were included, 43% (n=32) were women, with a mean age of 59±16.5 years and a mean BMI of 27.8±5.9 kg/m^2. Regarding the laboratory predictors mean CRP was 5±82 mg/L and mean ferritin was 759±618 μg/dl. At enrollment, 60 (89.6%) patients were receiving oxygen through nasal cannula/venturi mask, while 10.4% (14) were using a high-flow nasal cannula. Mean anti-Xa levels were 0.26±0.14 U/ml, with women having statistically higher levels than men (0.33±0.17

 DOI: 10.12890/2022_V9Sup1

vs 0.21 ml 0.1, p=0.001). Heparin resistance was detected in 63.5% (n=47). Increased BMI (p=0.001) was associated with subtherapeutic anti-Xa measurements. Regarding patients outcomes, 5 (6.8%) of them were intubated and the mortality was 8.1% (n=6). No thrombotic or hemorrhagic episodes were observed throughout the study.
Conclusions: Heparin resistance is common in COVID-19 and is associated with increased body weight. Anti-Xa level measurement can be used for the diagnosis of this resistance.

1075 / #EV0220

ANALYSIS OF ADVERSE EVENTS IN INTERNAL MEDICINE AND COVID-19 HOSPITALIZED PATIENTS, DURING THE FIRST WAVE OF THE COVID-19 PANDEMIC

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Background and Aims: The COVID-19 (Coronavirus disease 2019) pandemic represents an unprecedented challenge over all dimensions of healthcare, including patient safety. We aim to analyze adverse events in patients admitted to Internal Medicine and the COVID-19 Multidisciplinary Unit, during the first wave of the pandemic.
Methods: We conducted a retrospective study on patients discharged from Internal Medicine (Non-COVID-19 patients) and the COVID-19 Multidisciplinary Unit at San Cecilio Clinical University Hospital, between March 1st and June 30th, 2020. Study population: 1,091 patients (558 non-COVID-19 and 533 COVID-19). Study sample: 108 patients (58 non-COVID-19 and 58 COVID-19). Main variables: number and type of adverse events. Information source: Review of medical records. Tool: Global Triggers Tool.
Results: 241 Adverse Events (AE) were detected (74 in non-COVID-19 patients and 167 in COVID-19 patients). 75.9% of the patients had at least one AE (62.9% in non-COVID-19 and 88.9% in COVID-19). The mean AE per patient was 2.22 (1.35 in non-COVID-19 and 3.09 in COVID-19 patients). AEs due to medication predominate in COVID-19 patients and due to healthcare process or clinical procedure in non-COVID-19 patients. 97.92% of the AEs did not cause harm or caused temporary harm to the patient. It should be noted that the avoidance of AEs is 48.97%.
Conclusions: The results indicate that patient safety has been compromised during the first wave of the pandemic, especially affecting COVID-19 patients.

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MORTALITY IN THE ELDERLY COVID-19 PATIENTS DURING THE SECOND WAVE IN A SPOKE HOSPITAL: AN EPIDEMIOLOGIC STUDY

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Background and Aims: Early observational studies for COVID-19 (C19) documented an increased risk of hospitalization and death in elderly patients. Few studies regarded the very elderly (VE; age ≥ 80 years old); our aim was to determine the mortality rate and the main causes of death for this disease in this population group .
Methods: 1,116 patients, between the ages of 65 and 100, were admitted to our spoke hospital during the second wave (26/10/2020 – 22/05/2021). Information regarding age, sex, causes of death, length of hospitalization (LOH) and discharge modality was gathered; all patients were treated with a standard therapy according to our hospital protocols. All patients admitted had no indication to intensive care.
Results: 565 VE patients were admitted to our ward, of these 251 (37%) died. The mean age of death resulted significantly higher amongst the deceased (p<0.0001); moreover, amongst the dead, the males' mean age resulted lower than the females' (p=0.001). In addition to this, amidst the discharged patients, the higher the age, the longer the hospitalization (p=0.007). The main causes of death resulted to be C19-related pneumonia and ARDS (58.6%), C19-related complications such as bacterial superinfections (24.3%) and other conditions not directly related to the infection (17.1%; ie: heart failure and acute kidney injury).
Conclusions: As confirmed by other recent studies, the VE population is subject to a more severe course of the infection associated to more frequent complications; despite the limitations of our study, our death rate is consistent with what already documented in literature.

 DOI: 10.12890/2022_V9Sup1

805 / #EV0222

SODIUM SERUM LEVELS IN COVID-19 DISEASE: HYPONATREMIA AND DISEASE SEVERITY

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Background and Aims: Hyponatremia is the most common electrolyte disorder in hospitalized patients, having a negative impact on the clinical progress and length of stay. Hyponatremia has been associated with pulmonary infections, such as COVID-19. This study aims to assess the frequency of hyponatremia in COVID-19 and the effect on patients' outcomes.

Methods: Data from 334 patients hospitalized in the Infections Diseases Unit of University Hospital of Ioannina during 02/2020-02/2021, were analyzed. Hyponatremia was defined as Na+ <135 mEq/L. The analysis was conducted using Mann-Whitney U test to compare 2 groups of patients (with or without hyponatremia).

Results: The mean patients' age was 65.5 years, while 186 (55.6%) were men. The most common comorbidities were: arterial hypertension, diabetes mellitus and cardiovascular disease. Hyponatremia on admission was present in 69 patients (20.6%), while 142 (42.5%) cases were documented during hospitalization. Patients with hyponatremia on admission had lower minimum absolute lymphocyte counts (745 vs 630/μL, p-value=0.001) and higher maximum levels of CRP (102 vs 77 mg/L, p-value=0.009), while they had a greater length of stay (15 vs 11 days, p-value =0.001) compared to the normonatremic. Patients with hyponatremia during hospitalization had lower mean values of PO2/FiO2 (PF) ratio (256 vs 194.5, p-value=0.0003) and higher levels of CRP (101.5 vs 64.5 mg/L, p-value=0.0001).

Conclusions: Hyponatremia constitutes a severe complication in the setting of every infection. There seems to be a significant correlation between hyponatremia and higher levels of inflammatory markers and lower PF ratio, which could indicate higher incidence of respiratory failure.

1237 / #EV0223

THE LIKELIHOOD OF DEATH AMONG COVID-19 PATIENTS. IS THERE A CORRELATION BETWEEN CLINICAL AND LABORATORY MARKERS WITH OUTCOME? EVIDENCE FROM A POPULATION STUDY IN GREECE

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Background and Aims: The purpose of the study is to present the characteristics of these patients and possible correlation with the likelihood of death during hospitalization

Methods: Data were obtained from 509 hospitalized patients, in the Infectious Diseases Unit of University Hospital of Ioannina from 03/20 to 05/21. The disease severity based on CT Burden of disease is calculated as a percentage of the infiltrated pulmonary parenchyma. The analysis of the risk of death was conducted using Hazard Ratio for the variables related to the basic clinical characteristics of the patients.

Results: The mean age of the patients was 63.67, while 56.6% were men. 44 patients (8.6%) died during their hospitalization. The mean duration of patients' symptoms before hospitalization was 6.33 days, while the mean duration of hospitalization was 13.5 days. Patients that required administration of high concentrations of O2 through a non-rebreathable mask on admission, had a significantly higher risk of death compared to others (HR=12.22, p=0.032). Patients on supplementary doses of insulin on the first and third day of hospitalization had a significantly higher risk of death (HR=9.95, p=0.023 and HR=16.22, p=0.028). The use of antibiotics such as cephalosporins, in selected patients, was associated with a lower risk of death (HR=0.274, p=0.003).

Conclusions: The analysis of clinical characteristics and prognosis of the patients appeared to show relationship to the risk of death of patients with increased oxygen and insulin needs , having a negative effect on patients' survival, while the administration of antibiotics (when indicated) was shown to improve survival.

 DOI: 10.12890/2022_V9Sup1

1250 / #EV0224

SARS-COV-2 INFECTION AND THE FREQUENCY OF ELECTROLYTE DISORDERS IN THE INHOSPITALIZED POPULATION: DATA FROM A SPECIALIZED INFECTIOUS DISEASES UNIT OF UNIVERSITY GENERAL HOSPITAL OF IOANNINA

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Background and Aims: Disorders of electrolytes are common in infectious diseases. The purpose of the study was to detect possible electrolytic disorders in COVID-19 patients.

Methods: Data from 334 patients, who were hospitalized in the Special Infections Units of University General Hospital of Ioannina during the period 02/2020-12/2020 were analyzed. The analysis of the data was done with a non-parametric Mann-Whitney U test and Fisher's Exact test, on the platform R v 4.0.5.

Results: The mean age of patients was 65.51 years, with 186 (55.6%) of them being male. The most common comorbidities were: arterial hypertension (44.9%), coronary artery disease (26.9%) and diabetes mellitus (21.8%). Autoimmune diseases were: 6%, malignancies: 6%, and chronic lung disease: 6%. The average duration of symptoms before hospitalization was 5.93 days and the average duration of hospitalization was 14.09 days. Electrolyte disorders on admission (day 1), were: hyponatremia: 69 (20.6%), hypernatremia: 8 (2.3%), hypokalemia: 26 (7.7%), hyperkalemia: 6 (1.7%), hypomagnesemia: 105 (31.4%), hypermagnesemia: 7 (2%), hypercalcemia: 2 (0.5%), hypocalcemia: 15 (4.4%), hyperchloremia: 95 (28.44%), hypochloremia: 5 (1.4%). Electrolyte disorders, as recorded on any day of hospitalization, were: hyponatremia: 142 (42.5%), hypernatremia: 21 (6.2%), hypokalemia: 75 (22.4%), hyperkalemia: 23 (6.88%), hypomagnesemia: 242 (72,4), hypermagnesemia: 24 (7.1%), hypercalcemia: 3 (0.89%), hypocalcemia: 59 (17.66%), hyperchloremia: 187 (55.9%), hypochloremia: 9 (2.6%).

Conclusions: Electrolyte disorders in COVID-19 are various. The most common disorders are mainly hyponatremia (on the 1st day of admission and during hospitalization) as well as magnesium, potassium and chloride disorders.

1627 / #EV0225

MIXED ALCALOTIC ACID-BASE DISORDER COMPARED TO RESPIRATORY ALCALOSIS ALONE ON THE DAY OF ADMISSION IN HOSPITALIZED COVID-19 PATIENTS, ON MARKERS OF DISEASE SEVERITY

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Background and Aims: COVID-19 can cause acid-base disturbances due to its attack on the respiratory system. The purpose of this research is to correlate the most common disturbances with severity markers.

Methods: Data from 334 COVID-19 postive patients hospitalized in UHI during 2/2020-12/2020 were analysed. Data analysis used non-parametric Mann-Whitney U test and Fisher's Exact test, in the platform R v 4.0.5.

Results: The median age of the patients was 65.51 years, with 55.6% of them being male. The most common comorbidities were: arterial hypertension (44.9%), coronary artery disease (26.9%) and diabetes mellitus (21.8%). The most common acid-base disturbances that have been recorded from our data analysis of the patients (n=242) on the day of admission: respiratory alkalosis: 48 (19.8%), respiratory alkalosis and metabolic alkalosis: 130 (53.7%). Patients with respiratory alkalosis and metabolic alkalosis had a lower value P/F ratio in comparison to those with respiratory alkalosis alone (p=0.005), while also having higher CRP and procalcitonin values (104.5 vs 62.5 mg/L, p=0.008 and 0.145 vs 0.077 ng/ml, p=0.02). The median values of fibrinogen, LDH and γ-GT were also higher in patients with a mixed alkalotic disorder (572 vs 502 mg/dL, p=0.003, 405.0 vs 374.5 IU/l, p=0.03 and 54 vs 40 IU/l, p=0.031, respectively).

Conclusions: From the results of these patients' analysis, it seems that patients with a mixed acid-base disorder (respiratory alkalosis and metabolic alkalosis) were more severely affected when compared to patients who only presented with respiratory alkalosis only, during the first day of admission/treatment.

 DOI: 10.12890/2022_V9Sup1

1791 / #EV0226

CORRELATION OF OLFACTORY DISORDERS AND SARS-COV-2 INFECTION PRESENTING SYMPTOMS ON ADMISSION

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Background and Aims: The purpose of this research is to study the effect of SARS-CoV-2 infection on the olfaction and taste of patients as well as to analyze the correlation of reported symptoms during infection with loss of taste and smell.
Methods: The study included 300 adults, who tested positive for SARS, following testing with RT-PCR. 150 patients recovered at home and 150 were hospitalized in the Infectious Diseases Units of University Hospital of Ioannina. The demographic data, concomitant symptoms during infection as well as the medical history of the patients were recorded in a questionnaire. The statistical analysis was conducted on IBM SPSS Statistics 26.0, using chi-square and Fisher's exact test.
Results: The percentage of febrile patients was 72%. 52.67% reported cough, 25.33% shortness of breath and 49% fatigue while myalgia reported 49%. Rhinorrea reported 25.67% while nasal congestion 37.3%. Sore throat appeared in 17.67%. 57% and 51.67% reported loss of smell and taste respectively. Headache was reported by 37%. Patients with fatigue and loss of smell (31.3%) differed significantly (p=0.024) from patients without loss of smell and fatigue (17.67%). Patients with nasal congestion and loss of smell (25.6%) differed significantly (p=0.002) from patients with nasal congestion and without loss of smell (11.6%). Patients with headache and concomitant loss of smell (25%) differed significantly (p=0.007) from patients with headache and without loss of smell (12%).
Conclusions: The tested sample of the study population shows that patients who reported fatigue, nasal congestion and headache, had a higher risk of anosmia.

2347 / #EV0227

COMPARISON BETWEEN THE FIRST AND THE SECOND COVID-19 WAVE IN INTERNAL MEDICINE WARDS IN MILAN, ITALY: A RETROSPECTIVE OBSERVATIONAL STUDY

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Background and Aims: COVID-19 spread in two pandemic waves in Italy between 2020 and 2021. The aim of this study is to compare the first with the second COVID-19 wave, analyzing modifiable and non-modifiable factors and how these factors affected mortality in patients hospitalized in Internal Medicine wards.
Methods: Consecutive patients with SARSCov-2 infection and dyspnea requiring O2 supplementation were included. The severity of lung involvement was categorized according to the patients' oxygen need.
Results: 610 SARS-CoV-2 hospitalized patients satisfied the inclusion criteria. The overall estimated 4-weeks mortality was similar in the two pandemic waves. Several variables were associated with mortality after univariate analysis but they lacked of significance after multivariable adjustment. Steroids did not exert any protective effect when analyzed in time-dependent models in the whole sample, however, steroids seemed to exert a protective effect in more severe patients. When analyzing the progression to different states of O2 supplementation during the hospital stay, mortality was almost exclusively associated with the use of high-flow O2 or CPAP.
Conclusions: The analysis of the transition from one state to the other by Cox-Markov models confirmed that age and the severity of lung involvement at admission, along with the persistence of fever, were a relevant factor for mortality or progression.

 DOI: 10.12890/2022_V9Sup1

244 / #EV0228

THE ROLE OF EARLY TOCILIZUMAB USE IN HOSPITALIZED COVID-19 PATIENTS

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Background and Aims: To verify whether the use of tocilizumab early, prior to the start of mechanical ventilation in hospitalized patients with severe COVID-19 pneumonia improves the evolution and prognosis of patients.
Methods: Retrospective observational study that includes all patients with severe COVID-19 pneumonia who received tocilizumab during hospital admission.We divided the patients into two arms according to whether they had received tocilizumab early or late, comparing the need for ICU admission,orotracheal intubation (IOT), days of hospital admission, days of need for supplemental oxygen therapy, and mortality.
Results: 22 patients were included, dividing them 13 into the early arm and 9 into the late one. There were no significant changes regarding sex, comorbidities, symptoms, radiological pattern, and days of evolution at admission. The mean age was 54.69 years in the early and 62.11 years in the late. In the late arm, 77.78% required ICU and 55.55% IOT. 15.8% of the early arm were admitted to the ICU, without any IOT. There were no deaths in the early arm, with a mortality rate of 33.33% in the late period. The mean number of days until the withdrawal of oxygen therapy after the use of tocilizumab was 12.38 in the early arm and 21.83 in the late one, being the days until discharge of 11.3 in the early and 21.5 in the late.
Conclusions: Our study supports that the early use of tocilizumab can decrease ICU admissions, IOT, mortality, days of use of supplemental oxygen therapy and days of hospital stay.

459 / #EV0229

ANALYSIS OF PREDICTIVE FACTORS FOR ADMISSION TO THE INTENSIVE CARE UNIT IN PATIENTS WITH SARS-COV-2 DISEASE IN A REGIONAL HOSPITAL

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Background and Aims: To know predictive factors of patients hospitalized for SARS-CoV-2 disease that lead to admission to the Intensive Care Unit (ICU) in a regional hospital.
Methods: Retrospective observational study of patients hospitalized for SARS-CoV-2 disease in a regional hospital during approximately one year. Dependent variable: admission to the ICU. Independent variables: age, sex, BMI, chronic obstructive pulmonary disease (COPD), acute respiratory distress syndrome (ARDS), oxygen saturation, blood pressure, pulmonary infiltrates, and laboratory parameters (C-reactive protein and creatinine). The data were analyzed in SPSS vs27.0.
Results: Among the 833 hospitalized patients, 51.8% were men with a median age of 68.01 years. A 11.2% were obese, 75.3% with COPD, 22.7% suffered from ARDS and the median O2Sat was 89% (85-93%). A 8% required admission to the ICU, mostly men (72.2% vs 49.8%; p=0.025), with a lower median age in ICU-patients (60.69 years vs 71.61; p<0.001). It was more frequent in ICU-patients to present a bilateral pulmonary infiltrate (70.8% vs 55.3%; p=0.025), moderate ARDS (19.4% vs 8.8%; p=0.003) and O2Sat lower in admission (91% [87-94%] vs 94% [91-96%]). There's a higher median CRP levels in ICU-patients (117mg/dL vs 77.30 mg/dL; p<0.001) and serum creatinine (1.10 mg/dL [0.88-1.37 mg/dL] versus 0.97mg/dL [0.78-1.30 mg/dL]; p=0.017).
Conclusions: Risk factors associated with admission to the ICU in SARS-CoV-2 disease include being a man, over 60 years old, a bilateral pulmonary infiltrate, moderate ARDS, and high levels of CRP and creatinine. This helps to develop new protocols for action in SARS-CoV-2 disease and to try to avoid a poor evolution and admission to the ICU.

1077 / #EV0230

CLINICAL STUDY ON THE EFFICACY OF ARGININE FOR THE PREVENTION AND TREATMENT OF SARCOPENIA IN PATIENTS WITH COVID-19-RELATED PNEUMONIA

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Background and Aims: The use of arginine, in association with other active principles principally important from the metabolic, energetic and immunological points of view, such as creatine, L-carnitine, aspartic acid, magnesium, selenium, vitamins C and E, has made it possible to count on several different and synergic actions.
Methods: 40 patients on standard therapy plus supplementation were enrolled and compared with a control group of 40 patients, all hospitalised at the COVID Sub-Intensive Care Unit of the del Mare Hospital in Naples. Muscle strength was assessed with the Handgrip test and muscle ultrasound. We assessed time spent in the sub-intensive care unit, duration of non-invasive ventilation, and overall length of stay.
Results: Arginine-supplemented patients had an average grip strength of 23.5 at the end of hospitalisation compared with 22.5 in the untreated group, showing less reduction with statistical significance (p<0.001). In the same way, the thickness of the vastus lateralis muscle, measured at the end of hospitalisation showed less reduction on ultrasound, with a higher average value in the group receiving treatment than in the group of patients without supplementation (p<0.001). The most important result is

 DOI: 10.12890/2022_V9Sup1

the duration of hospitalisation in the Sub-Intensive Care Unit: in the treated group there was a reduction of 39.65% in comparison with the untreated group, with an average of 20.1 days versus 12.13 days.
Conclusions: In conclusion, the intake of 3 grams of arginine contributed to a more favourable prognosis, with better muscular performance and a reduction in hospitalisation time and costs.

1669 / #EV0231

NECROTIC-HAEMORRHAGIC PANCREATITIS IN A COVID POSITIVE PATIENT: CASE REPORT AND REVIEW OF THE LITERATURE

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Case Description: A 65-year-old hypertensive patient treated with Ramipril 5 mg, he comes to the emergency room complaining of cough, low-grade fever, abdominal pain and diarrhea. It is positive for the molecular swab and shows a significant increase in pancreatic enzymes. At CT, ground glass pneumonia and edematous pancreatitis (Balthazar 1). He is therefore hospitalized. After a week of progressive worsening of the clinical picture with worsening respiratory failure requiring orotracheal intubation, renal failure which is dialyzed and finally evolution to necrotic hemorrhagic pancreatitis with positivity to Acinetobacter Baumanni on blood culture and peritoneal drainage fluid. The patient dies after 3 weeks of admission.
Clinical Hypothesis: Is it possible to consider SARS-CoV-2 as the causative agent of pancreatitis in this case? Could the coexistence of parenchymal suffering and any endothelitis affecting the pancreatic parenchyma justify the evolution to the necrotic hemorrhagic form?
Diagnostic Pathways: We compared this case to other non-covid pancreatitis, we studied the CT images and the differences in terms of evolutionary time.
Discussion and Learning Points: We analyzed the international literature, evaluating the pancreatitis and covid data, the etiopathogenetic mechanisms and the direct, indirect and immune-mediated damage of the virus to acinar and beta cells, also evaluating the postcovid sequelae.

1796 / #EV0232

10-MONTH RETROSPECTIVE STUDY: CASES OF PULMONARY EMBOLISM IN PATIENTS WITH COVID-19

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Background and Aims: COVID-19 is associated with a procoagulant state related to an acute inflammatory state, prolonged immobilization and hypoxia that motivate an increase in venous thromboembolic events. Therefore, we carried out a retrospective epidemiological study of cases of pulmonary embolism (PE) in patients with COVID-19 admitted to an Internal Medicine inpatient unit.
Methods: Review of clinical files of patients admitted to an Internal Medicine inpatient unit between March 2020 and January 2021 with diagnoses of PE and COVID-19. PE diagnoses were made by CT angiography of the chest.
Results: There were 10 cases of patients with COVID-19 with simultaneous diagnosis of PE. The majority of patients were male (70%) and the average patient age was 71.3 years. All patients underwent hypocoagulant treatment with enoxaparin. The most common symptoms were dyspnea (70%) and tachycardia (50%). In 40% of the cases, patients had an associated deep vein thrombosis. According to the Wells Score, 30% of patients had a high probability of PE, 30% of patients had an intermediate probability of PE, and 40% of patients had a low probability of PE. The mortality rate was 20%. 40% of patients had a pulmonary embolism severity index (PESI) class V, 20% had a PESI class IV, 10% had a PESI class III and 30% had a PESI class II.
Conclusions: Given the frequency of thromboembolic events in patients with COVID-19, thromboprophylaxis has been standard in inpatient treatment, although the optimal management of these patients remains unclear.

307 / #EV0233

ICU ADMISSION CRITERIA AND MORTALITY IN HOSPITALIZED PATIENTS WITH COVID-19 INFECTION

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Background and Aims: To analyze characteristics and predictors of ICU admissions and mortality for hospitalized COVID-19 patients during a one-year period, and to improve medical decision-making and protocols to follow.

 DOI: 10.12890/2022_V9Sup1

Methods: Retrospective observational study of hospitalized patients with COVID-19 disease confirmed by PCR or serology, between March 1, 2020 and February 9, 2021. We collected demographic data, comorbidities, diagnostic methods, clinical data, analytical data, complications during hospital admissions and mortality. Dependent variables: mortality and ICU admission. The statistical analysis was performed with the SPSS vs 27.0 program.
Results: 833 patients were hospitalized. 457(51.8%) were males and the median age was 68.01 years. On admission, 101 (11.2%) had obesity; 41 (4.6%) COPD; 677 (75.3%) pulmonary infiltrates; and 204 (22.7%) ARDS. The mean diastolic blood pressure (DBP) at admission was 68.89; the median Sat02 was 89% and PCR was 119 mg/dL. During hospitalization, 72 (8.0%) were admitted to the ICU; 155 (17.6%) died and 133 (14.8% of the total) died within 30 days. The patients who died were of a higher median age (82.32 years), the mean PAD was lower (68.80 mmHg), had a higher median creatinine (1.34 vs 0.96), leukocytes (8.40 vs 6.80), neutrophils (6.85 vs 4.90), INR (1.12 vs 1.05), PCR (125.00 vs 74.7), potassium (4.3 vs 4.1) and glucose (125 vs 111); SatO2 was lower (90 vs 94),with a higher percentage of moderate ARDS (41[26,5%] vs 45[6,1%]).
Conclusions: Our results provide important information on the characteristics and complications of SARS-CoV-2 infection in hospitalized patients, helping us to identify patients at higher risk of mortality taking into account the predictors described, as well as ICU admission, in order to provide adequate medical care and propose new protocols to follow.

71 / #EV0234

AUTOIMMUNE HEMOLYTIC ANEMIA PRESENTING AFTER SARS-COV-2 INFECTION

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Case Description: We present the case of a 71-year-old male with recent SARS-CoV-2 infection who presents at the emergency department with asthenia, and weight loss of 10% of body weight. The patient was hypotensive with BP 90/50 mmHg, had no adenomegaly nor palpable masses. From the initial study, normochromic normochromic anemia stands out with a Hemoglobin value of 6.7 mg/dL haptogolbin consumption and direct Coombs test was positive.
Clinical Hypothesis: Hemolitic anemia of autoimmune, or infectious etiology.
Diagnostic Pathways: We concluded the study with a wide panel of serologies, which came back negative, negative IGRA, normal complement levels, immunological study and immunoglobulin assay, electrophoresis, serum and urine immunofixation and chains urinary slight changes without alterations. Cervical-thoracoabdominal pelvic CT was performed, which did not reveal alterations. Given an exhaustive negative etiological study, COVID-19 was assumed to be the precursor of the current clinical picture. During hospitalization, the patient had a favorable evolution with recovery of the hemoglobin value and absence of evidence of hemolysis.
Discussion and Learning Points: Since the beginning of the COVID-19 pandemic, together with pneumonia and respiratory failure, multiple systemic manifestations have been described. in patients infected with SARS-CoV-2. Autoimmune hemolytic anemia is a rare manifestation of SARS-CoV-2 infection. The underlying pathophysiological mechanism remains unknown, but there is a possibility that a cross-reaction of bodies against viral proteins and antigens expressed on the membrane of erythrocytes. This case is of particular interest as it reveals a rare manifestation in the subacute phase of COVID-19 infection. possible by presumption and after extensive study and logic with the exclusion of differential diagnoses.

1156 / #EV0235

CARDIOVASCULAR COMPLICATIONS IN COVID-19

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Background and Aims: Although clinical manifestations of COVID-19 are mainly respiratory, major cardiac complications are being reported.1 The authors aimed to study the incidence of cardiovascular complications in patients admitted to a district hospital in Portugal.
Methods: Retrospective study of consecutive adult patients admitted to the hospital from March to December 2020 with SARS-CoV-2 infection; data collected from clinical records, analysed by non-parametric tests, interval confidence of 95%.
Results: 509 patients were enrolled, 54.6% males, mean age was 74.8 years. Overall, in-hospital mortality was 29.3%. Although 105 patients had history of heart failure, 32.8% of acute heart failure events actually happened in patients without previously established heart failure and were associated with higher mortality (p=0.01). A significative percentage had atrial fibrillation, 2.8% with de novo diagnosis. Four percent of patients had arrhythmic events; two patients had life-threatening arrhtymia. Acute coronary syndrome happened in 2.55% of patients. There was one case of myocarditis and four of cardiogenic shock. Stroke (3.1%) and pulmonary embolism (2.9%) were less observed than in other centres. Coronary disease (p=0.04), obesity (p=0.00) and hypertension (p<0.01) were associated with higher mortality.
Conclusions: Cardiovascular events cause important morbi-mortality in COVID-19 patients, so clinicians should be aware of these when evaluating and managing this illness.

 DOI: 10.12890/2022_V9Sup1

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1108 / #EV0236

EFFECT OF REMDESIVIR ON MORTALITY IN COVID-19 PNEUMONIA.

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Background and Aims: The COVID-19 pandemic is today's major health problem. Remdesivir shortens the duration of COVID-19 pneumonia by 4 days compared to placebo without reducing mortality. This study aims to analyse the effect of remdesivir on mortality in COVID-19 pneumonia.
Methods: Retrospective observational cohort study on the effect of remdesivir (200 mg followed by 100 mg/day IV 5-10 days) on mortality, according to the WHO scale, on day 28 from admission, in 1,115 patients admitted to the Hospital "Príncipe de Asturias" from March to September 2020, with SARS-CoV-2 pneumonia and basal SpO2 <94%. Approved by the hospital's CEIC. Analysis performed with binary logistic regression and adjusted with propensity score matching.
Results: Of the 1,115 patients, 62.2% were male, median age 68 (AIC 55 to 78), with comorbidities (54.0% hypertensive, 24.1% diabetic, 17.7% heart disease, 22.9% chronic lung disease and 23.0% oncohaematological), median baseline SpO2FiO2 429 (AIC 332 to 452), median baseline CRP 78.1 (AIC 33.4 to 138) mg/L. 34.1% were treated with corticosteroids and 6.6% were admitted to ICU. Remdesivir was received by 6.8%. 5 (7.2%) of those who received remdesivir and 247 (26.1%) of those who did not (OR 0.22; 95% CI 0.09 to 0.56; p=0.001) died. In the analysis adjusted for the confounding variables age, hypertension, diabetes, chronic kidney disease, immunosuppression, antimalarial dyspnoea and steroids, no effect on mortality was observed (OR 0.35; 95% CI 0.12 to 1.06; p=0.064).
Conclusions: Remdesivir has no effect on mortality in SARS-CoV-2 pneumonia and, based on the available evidence, this conclusion should be accepted until further randomised controlled studies demonstrate otherwise.

819 / #EV0237

HYPERTENSION BURDEN ON COVID19 MORTALITY

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Background and Aims: Hypertension and C have been correlated from the beginning of this pandemic, since it was the most prevalent medical condition among infected patients. It is also known that the ACE2 receptors are the cell entry for SARS-CoV-2. Our aim is to assess the burden of hypertension on COVID-19 mortality in a second-level hospital.
Methods: We performed a retrospective cohort study of the relationship between hypertension and 28-day mortality among patients diagnosed with SARS-CoV-2 pneumonia and SpO2 below 94%, from March to September 2020. A binary logistic regression was undertaken, using propensity score matching.
Results: Of the 1,134 patients that were included, 62.2% were male and the median age was 68 years. They had different comorbidities (54% had hypertension, 24.1% had diabetes, 17.7% had heart disease, 22.9% had chronic lung disease and 23% had oncohematological disorders). Compared with non-hypertensive patients, hypertensive patients had higher 28-day mortality rate (34% vs 13.8%). However, when results were adjusted by confounding variables (age, sex or comorbidities, among others), hypertension was associated to a decreased mortality rate (OR 0.66; CI 95% 0.44 to 0.97; p<0.037).
Conclusions: Observational studies have shown an association between hypertension and higher mortality on COVID-19 patients. However, these results may be biased by other elements such as age or previous diseases. According to our study, the burden of hypertension on COVID-19 mortality is explained by other comorbidities and, contrary to other evidence, high blood pressure may be related to lower mortality.

2060 / #EV0238

COUGH, NOT ALWAYS A RESPIRATORY PROBLEM

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Case Description: A 70-year-old woman with medical history of hypertension, breast cancer on remission, and previous history of

 DOI: 10.12890/2022_V9Sup1

gastritis due to *H. pylori* presented to the emergency department with sudden onset of hematemesis. She also mentioned cough in the days before this episode. She had no previous history of alcohol or tobacco intake, and she was under tamoxifen, a combination of amlodipine and valsartan, and ticlopidine. On observation, the patient was hemodynamically stable (blood pressure of 127/75 mmHg and a heart rate of 86 bpm), pale and complained of a slight epigastric pain. Physical examination only revealed a abdominal tenderness and painful epigastric palpation. The patient was found to be a COVID-19 positive and her blood work showed anemia (Hb 10.6 g/dL), with normal lactate level. At first no endoscopic examination was performed and the patient remained on close clinical surveillance. On the second day, after another episode of hematemesis associated with syncope, hypotension and a 4g/dL drop on hemoglobin, the endoscopic examination was performed, which revealed a Mallory-Weiss tear. No endoscopic treatment was needed and a proton pump inhibitor was started. The ticlopidine was stopped permanently. The patient recovered, with no more episodes of bleeding.
Clinical Hypothesis: Upper GI bleeding.
Diagnostic Pathways: Endoscopic examination.
Discussion and Learning Points: The pathophysiology of MalloryWeiss tear is not completely understood. In the presented case, although the patient had previous gastric comorbidities, the cough associated to COVID-19 infection was probably the main trigger for her clinical scenario.

391 / #EV0239

RENAL FUNCTION IMPAIRMENT IN PATIENTS WITH CORONAVIRUS INFECTION AND ITS RELATION TO PROGNOSIS

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Background and Aims: At the end of 2019, a series of pneumonias detected in China which etiological agent was the SARS-CoV-2 virus caused a worldwide pandemic. Observations prove that the new coronavirus not only produces pulmonary involvement, but also heart, kindney and thromboembolic disease in patients with a severe infection. Acute kidney damage causes a significant increase in morbility and mortality. The objective is to study the possible relationship between acute kidney damage and its short-term vital prognosis in patients admitted for infection caused by SARS-CoV-2 in our hospital.
Methods: Retrospective cohort study that included 483 patients admitted for SARS-CoV-2 infection at the Royo Villanova Hospital, included in the national SEMI-COVID-19 database.
Results: The incidence of AKI in patients with coronavirus infection was 7.5%, with an in-hospital mortality of 66.7%, higher than that of patients without kidney damage (p<0.001). The demographics that relate to AKI have been determined to be age and dependency. Comorbidities related to AKI are diabetes mellitus, cardiovascular disease, and cerebrovascular disease. Signs and symptoms that have been shown to be associated with AKI are tachypnea, cough, asthenia, and fever. In-hospital complications related to impaired renal function are acute respiratory distress syndrome and multiorgan failure.
Conclusions: The development of AKI in patients admited for SARS-CoV-2 infection is related to a 7-fold increase in in-hospital mortality. The results indicate that AKI is a relatively frequent manifestation of a coronavirus infection. Therefore, in order to reduce the severity and mortality of COVID-19, it is important to study the factors that can influence the deterioration of the kidney function.

707 / #EV0240

LONG-TERM RESPIRATORY SEQUELAE ONE YEAR AFTER HOSPITALIZATION FOR SEVERE COVID-19: RESULTS FROM A PROSPECTIVE COHORT STUDY

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Background and Aims: Many coronavirus disease 2019 (COVID-19) survivors show symptoms months after acute illness. The aim of this work is to describe the clinical evolution of Covid-19, one year after discharge, focusing on respiratory sequelae.
Methods: We performed a prospective cohort study on 238 patients previously hospitalized for COVID-19 pneumonia in 2020 who already underwent clinical follow-up 4 months post-COVID-19. 200 consented to participate to a 12-months assessment, which included clinical evaluation and pulmonary function tests including diffusing capacity of the lung for carbon monoxide (DLCO).
Results: After 366 [363-369] days, 79 patients (39.5%) reported at least one symptom. Patients complaining dyspnea at rest or for mild efforts (N.=16 (8.1%) patients) were significantly older (70.5 [55.5-77.5] vs. 61.0 [50.5-70.0] years; p=0.04) and had a higher BMI (31.2 [26.9-33.2] vs. 27.0 [24.6-31.3] kg/m^2; p=0.04); moreover, they showed a significantly lower DLCO (67% [59-78] vs. 81% [70-91]; p=0.01). The median DLCO was 80% [69-91], comparable to the one observed at 4 months (79% [70-89]; p=0.17). A DLCO <80% was observed in 96 patients (49.0% vs. 51.3% at 4 months; p=0.64). Severe DLCO impairment (<60%) was reported in 20 patients (10.2% vs. 12.2%; p=0.42). At logistic regression, female gender was strongly associated with a DLCO <80% at one-year follow-up, independently from other factors; arterial hypertension, chronic kidney disease and radiological involvement were associated with a DLCO <60%.

 DOI: 10.12890/2022_V9Sup1

Conclusions: In the time elapsed from 4 to 12 months respiratory function did not significantly improved; symptoms remain highly prevalent one year after acute illness.

854 / #EV0241

THE ROLE OF COVID-19 IN THROMBOTIC EVENTS

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Case Description: Mesenteric venous thrombosis (TVM) accounts for about 5% of cases of acute mesenteric ischemia, most of the time detected in necroscopic examinations. It tends to occur in younger patients and with an important association with states of hypercoagulability, with hypocoagulation being the first line of treatment. A 39-year-old man with a known medical history of overweight and mild COVID-19 infection comes to the emergency room with an abdominal epigastric pain that increases with food intake, which conditioned a decrease in food intake and constipation with 5 days of evolution. On physical examination, pain localized in deep palpation of the right hypochondrium. In this context, he started fluid therapy and remained on break, having completed hypocoagulation with enoxaparin, with improvement progressive condition, reestablishing oral route and gastro-intestinal transit after 3 days of therapy. He was discharged asymptomatic and anticoagulated with warfarin.
Clinical Hypothesis: COVID-19 may be considered as a risk factor contributing to a hipercoagulability state in thrombotic events.
Diagnostic Pathways: Analitically, increased inflammatory parameters, anemia due to folic acid deficit, increased D-dimers, positive ANA, VS stood out slightly increased and factor VIII assay 233%. Abdominal-pelvic CT scan described superior mesenteric venous thrombosis with extension to the portal vein. Endoscopic study showed chronic gastritis with positive Helicobacter test.
Discussion and Learning Points: So, knowing that it is recommended to maintain hypocoagulation for a period of 3 to 6 months with warfarin in patients with MVT and associated risk factor, there is doubt about its maintenance in patients after COVID-19 infection, regardless of its severity.

1841 / #EV0242

COVID-19 ASSOCIATED PNEUMOMEDIASTINUM: A SERIES OF CASES

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Background and Aims: Most COVID-19 patients exhibit only mild symptoms, while others end up needing ventilation due to respiratory failure associated pneumonia. The adverse effects of mechanical ventilation (exp. pneumomediastinum and pneumothorax) are well documented. This study tries to sample the main features of COVID-19 patients that have developed pneumomediastinum and the contribution of mechanical ventilation towards it.
Methods: A retrospective and descriptive study of all COVID-19 cases with pneumomediastinum between January and February of 2021 in an Internal Medicine ward at a Central Hospital was conducted. The parameters assessed were comorbidities, disease progression, complications, and the comparison with available studies.
Results: They have been identified 4 cases in 400 COVID-19 patients, in 2 months, all male, aged between of 68 and 81, with several comorbidities, being cardiovascular disease the most prevalent. Fever and dyspnea were the most frequent symptoms, at admission. All of them, were submitted non-invasive mechanical ventilation, except for three who ended up needing invasive ventilation. In the end, all of them get worse, with bacterial superinfection and multiorgan dysfunction, culminating in death.
Conclusions: Even though pneumomediastinum cases are infrequent, an increase was noted in COVID-19 patients, something that might be attributed not only to the barotrauma (eventually due to the inexperience of some healthcare providers in manipulating mechanical ventilation and underlying diseases) but also to the inflammatory response and alveolar damage inherent to the COVID-19 infection.

2216 / #EV0243

COVID-19: ATYPICAL MANNIFESTATION - RELATED TO A CASE REPORT

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Case Description: Woman, 80 years old, previously autonomous, prior clinical history of cardiac insufficiency and chronic kidney disease came to the ER with a history of 7 days of fever, dyspnea and cough. She was admited in hospital with the diagnosis of pneumonia caused by COVID-19, with a global respiratory insufficiency. From the start of the treatment, there was need for noninvasive mechanical ventilation and corticotherapy. In the sixth day after admition, which matches the twelfth day of the disease, the patient refers pain in both parotid regions – in the examination with apparent signs of bilateral mumps, which lead to the start of antibiotherapy – hours later, she developed facial angioedema, which was assumed as an likely late reaction to ceftriaxone, giving the history of alergy to penicilina. She stopped ceftriaxone and kept the antibiotherapy with clindamycin, with subsequente improvement of the swelling and pain in the parotid region.
Clinical Hypothesis: Mumps by other viruses such as *Coxsackie*, influenza, parainfluenza, Epstein-Barr.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: The search for other viruses came back negative, and it was assumed as an atypical manifestation of the COVID-19 infection.
Discussion and Learning Points: The presence of angiontensin 2 enzyme conversion receptors in the oral cavity represents a potential gateway for the entrance and spread of the SARS-CoV-2 virus, explaining it's tropism for salivary duct cells, which culminates in the appearence of clinical manifestations such as anosmia, ageusia or mumps. Once settled in, the vírus promotes changes in the oral microbiota and, by increasing the immunosuppression, contributes to increase the susceptibility to opportunistic infections.

1157 / #EV0244

EFFECT OF AZITHROMYCIN ON MORTALITY OF COVID-19 PNEUMONIA

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Background and Aims: Azithromycin has been proposed for its immunomodulatory activity, decreasing the production of pro-inflammatory cytokines and inhibiting the activation of neutrophils. This work aims to analyze the effect of azithromycin on mortality of COVID-19 pneumonia.
Methods: Retrospective observational cohort study above the effect of azithromycin on mortality according to the WHO ordinal scale on day 28 from admission, in 1,125 patients admitted to the "Príncipe de Asturias Hospital" from March to September 2020, with pneumonia due to SARS-CoV-2 and SpO2 <94% at baseline. It has been approved by the hospital's CEIC. Analysis with binary logistic regression has been performed and adjusted with propensity score matching.
Results: Of the 1,125 patients, 62.2% are male, median age 68 (AIC 55 to 78) years, with comorbidities (54.0% hypertensive, 24.1% diabetic, 17.7% heart disease, 22.9% chronic lung disease and 23.0% are oncohaematological), median initial SpO2FiO2 429 (AIC 332 to 452), median initial CRP 78.1 (AIC 33.4 to 138) mg/L, 6.8% were treated with Remdesivir, the 34.1% with corticosteroids and 6.6% were admitted to the ICU. They received azithromycin 18.3% and not 81.7%. 16.5% of those who received azithromycin and 26.4% of those who did not die (OR 0.55; 95% CI 0.37 to 0.82; p=0.003). The analysis adjusted for the confounding variables no effect on mortality was observed (OR 0.68; 95% CI 0.41 to 1.12; p=0.127).
Conclusions: After performing the statistical analysis adjusted for the confounding variables, no statistical significance was obtained in the reduction of mortality. Azithromycin had no effect on mortality in SARS-CoV-2 pneumonia.

2644 / #EV0245

COVID-19 AND SGLT2 INHIBITOR INDUCED EUGLYCEMIC DIABETIC KETOACIDOSIS: CASE REPORT AND LITERATURE REVIEW

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Background and Aims: Adults with type 2 diabetes mellitus have a higher risk of severe morbidity and mortality with COVID-19 and SGLT2 inhibitors (iSGLT2) are known to increase the risk of ketoacidosis. Since diabetic ketoacidosis has been reported in many people with COVID-19 and the recent increasingly use of SGLT2 inhibitors related to trials showing improved cardiovascular outcomes, the authors pretend to present a case and review the literature regarding the relationship between the use of SGLT2 inhibitors, the SARS-CoV-2 infection and the development of euglycemic diabetic ketoacidosis.
Methods: The authors report a case of a 73-year-old woman medicated at home with bisoprolol and ertuglifozin that was admitted with COVID-19 pneumoniae and developed euglycemic diabetic ketoacidosis less than 24 hours after admission. Her condition got worse and she was transferred to the intensive care unit due to respiratory failure.
Results: The authors have searched the PubMed database with the keywords "COVID-19" and "euglycemic ketoacidosis" and found only 8 articles. The articles have shown that there is an increased risk of euglycemic ketoacidosis in patients taking iSGLT2, often with a delayed diagnosis. In the setting of SARS-CoV-2 infection, timely diagnosis is even more important.
Conclusions: Several authors propose the suspension of iSGLT2 therapy in case of acute illness.

2643 / #EV0246

COVID-19 PNEUMONIA OR SOMETHING ELSE? CONSIDERING THE PRESENCE OF BACTERIAL COINFECTION

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Case Description: We present a 41-year-old male with no history of interest, diagnosed with SARS-CoV-2 infection on 09/04/21. Onset of symptoms 11 days before. Diagnosed of bilateral pneumonia COVID-19 in a private hospital, he reported cough and dyspnoea on small exertions, with desaturation up to 88%, for which he came to our centre. In the Emergencies, blood test with severe lymphopenia, dissociated cholestasis and elevation of acute phase reactants, negative D-dimer. X-ray with increase in density of left basal peripheral region, upper right field and

 DOI: 10.12890/2022_V9Sup1

middle and lower right fields. Treatment with IV dexamethasone was started. During his hospital stay, radiological worsening at the expense of the right pulmonary base.
Clinical Hypothesis: Due to worsening despite treatment started, we suspected a possible bacterial co-infection that could explain the lack of improvement.
Diagnostic Pathways: Microbiological study was extended, being positive IgM for *Mycoplasma* (Mycoplasma, IgG (IA) antibodies aren't detected), with the rest of negative serologies (HBV, HCV, HIV, Treponema, *Coxiella*, *C. pneumoniae*, *L. pneumophila*, *S. pneumoniae*). Treatment with azithromycin was started, with both clinical and radiological improvement, for which he was discharged.
Discussion and Learning Points: COVID-19 pneumonia is a severe condition that can be worsened by co-infection with common pathogens, such as Mycoplasma, which is one of the most important causes of respiratory tract infections and confers 4% to 8% of community-acquired bacterial pneumonia. The symptoms associated with these microorganisms may be indistinguishable from SARS-CoV-2 infection (fever, cough, and shortness of breath), so in patients with clinical worsening or without clear improvement, it is extremely important to consider the possibility of concomitant infection.

2630 / #EV0247

A CASE OF PROLONGED COVID-19 IN AN IMMUNOCOMPROMISED PATIENT: DIAGNOSTIC AND THERAPEUTIC CHALLENGES

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Case Description: We present the case of a 46 year-old female with history of non-Hodgkin lymphoma under maintenance chemotherapy with rituximab (last dose December 2020), who has first admitted with COVID-19 pneumonia on January 25th, 2021. After receiving standard medical therapy for COVID-19, she was discharged one week later, only to be readmitted after few days with high fever and hypoxemia. A bacteremia with Staphylococcus lugdunensis was identified and was treated promptly but the patient's condition deteriorated. She developed new pulmonary infiltrates and SARS-CoV-2 PCR from bronchoalveolar lavage (BAL) was positive. Patient was again treated with remdesivir, IVIG and methylprednisolone tapering dose. However, few days after her second discharge, she was readmitted with hypoxemia, fever and radiologic worsening and SARS-CoV-2 RNA was detected in a nasopharyngeal swab (Ct value 27). In view of expected B-cell depletion, due to previous anti-CD20 treatment and the absence of anti-S IgG SARS-CoV-2 antibodies more than one month after infection, convalescent-plasma transfusion (from a donor who had also been vaccinated) was decided. Following treatment, our patient improved and had complete resolution of her prolonged infection, three months after initial presentation.
Clinical Hypothesis: Patients with B-cell depletion due to anti-CD20 treatment, have increased risk for prolonged SARS-CoV-2 infection.
Diagnostic Pathways: SARS-CoV-2 PCR test in BAL and anti-SARS-CoV-2 antibody levels can help in the diagnosis of prolonged COVID-19 in immunocompromised patients.
Discussion and Learning Points: Convalescent-plasma could be a therapeutic approach in patients with hematologic malignancies and prolonged COVID-19, showing no antibody production after immunosuppressive therapies.

774 / #EV0248

SEROPREVALENCE OF ANTI-SARS-COV-2 ANTIBODIES IN PATIENTS AFTER KIDNEY TRANSPLANTATION

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Background and Aims: The Czech Republic is one of the most affected country by the COVID-19 pandemic worldwide. As of 14 April 2021, the SARS-CoV-2 virus was detected in 1,593,936 inhabitants of the Czech Republic (15.1% of the population). The aim of our study was to analyze the seroprevalence of antibodies against SARS-CoV-2 virus (Severe Acute Respiratory Syndrome Corovavirus 2) in patients after kidney transplantation.
Methods: We retrospectively have analyzed the results of the examination of antibodies against the SARS-CoV-2 virus in patients after kidney transplantation, at the planned outpatient examination in the period from 18.1. to 14.4.2021. Antibodies against the RBD (Receptor binding protein) spike 1 subunit of the virus in the IgA, IgM and IgG class as well as antibodies against NP (nucleocapsid) in the IgG class have been determined in the blood of all patients by ELISA method.
Results: We examined 307 patients (189 men and 118 women). The positivity of at least one of the measured antibodies, was detected in 128 patients (41.7%). In the group of 118 women, the seroprevalence was 48.3% (there were 57 positive patients) and in the group of 189 men it was 37.6% (71 patients were positive). Isolated positivity of IgA antibody against RBD was detected in 4.6% of patients.
Conclusions: According to our analysis, the seroprevalence of anti-SARS-CoV-2 antibodies there is in more than 40% of patients after kidney transplantation. Seroprevalence is higher in women than in men and it also increases with age. Isolated IgA antibody positivity is uncommon.

 DOI: 10.12890/2022_V9Sup1

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COVID-19 RELATED KAPOSI'S SARCOMA: A POSSIBLE RELATION?

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Case Description:
The authors present the case of an 87-year-old caucasian male with arterial hypertension and dyslipidaemia. There was no history of neoplastic or autoimmune diseases or use of immunosuppressive drugs. The patient denied alcohol, tobacco or other drugs consumption and relevant epidemiological history. He presented at the emergency room with one-week evolution of dyspnoea and fever, with no other symptoms. Besides polypnea, physical examination was unremarkable. The initial study showed type one respiratory failure, lymphopenia, high inflammatory parameters, D-dimers and LDH. Thoracic x-ray showed bilateral infiltrates. Blood cultures, viral serologies, search for atypical agents and RT-qPCR for SARS-CoV-2 were also negative.
Clinical Hypothesis: A bacterial respiratory infection was considered and empirical antibiotic therapy was started.
Diagnostic Pathways: Thoracic angio-CT was requested due to clinical and laboratorial worsening. It showed peripheral extensive ground glass and crazy paving areas within all lobes, suggesting SARS-CoV-2 infection. Autoimmunity study was negative. The COVID-19 diagnosis was then confirmed by broncoalveolar study. Due to severe infection, the patient completed a long course of corticosteroid therapy with methylprednisolone. After one month of immunosuppression, foot bluish-red maculopapules emerged and the biopsy was compatible with anaplastic Kaposi's sarcoma (KS).
Discussion and Learning Points: A recent study suggests that SARS CoV-2 has the potential to induce Kaposi's sarcoma-associated herpesvirus lytic reactivation through manipulation of intracellular signalling pathways. Although immunosuppression may be the main key factor contributing to the KS development, the direct effect of SARS-CoV-2 might also play an important and synergistic role.

2447 / #EV0250

SEVERE FORM OF COVID-19 IN A YOUNG PATIENT WITH ANKYLOSING SPONDYLITIS TREATED WITH ETANERCEPT-CASE REPORT

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Case Description: Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection has spread worldwide and it became a major public health concern for the past two years. However, there is limited data when it comes to patients with rheumatic pathology treated with immunomodulatory therapy. We report the case of a 45-year-old man, diagnosed ten years ago with ankylosing spondylitis, treated with tumor necrosis factor-alpha (TNF-α) inhibitor (etanercept 50 mg, weekly), unvaccinated.
Clinical Hypothesis: The patient tested positive for COVID-19 and was initially classified as a mild form, beeing prescribed symptomatic treatment and continuing immunomodulatory therapy.
Diagnostic Pathways: 10 days after the diagnosis, he presented with acute respiratory failure, in cytokinic storm (CRP 343 mg/mL, ferritin 3885.00 ng/mL, IL 6 25.48 pg/mL), acute kidney injury (eGFR 30 ml/min), mild liver cytolysis and pulmonary ground-glass opacities occupying 40% of both lungs on thoracic CT scan. There was paraclinical evidence of bacterial infection so we decided to interrupt the immunomodulatory treatment. The patient received antibiotherapy, corticotherapy, LMWH anticoagulation and oxigenotherapy. The patient had contraindications for remdesivir, so he recieved favipiravir according to our national protocol of treatment. The evolution was favorable in the next 7 days, with almost complete remission of the inflammatory syndrome, beeing discharged fully asymptomatic.
Discussion and Learning Points: Most papers have shown that treatment with TNF-α inhibitor does not influence the severity of COVID-19 and it is not recommended to discontinue it. However, bacterial infections can be associated with COVID-19, therefore each patient must be carefully evaluated when deciding to continue or discontinue immunomodulatory treatment.

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DOES COVID-19 VACCINATION CAUSE MIS-A?

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Case Description: Multisystem inflammatory syndrome is a febrile syndrome with elevated inflammatory markers. The syndrome has been described after SARS-CoV-2 infection but is can also occur after vaccination. WHO and CDC criteria only refer to post-infectious MIS-A but the Brighton Collaboration Case Definition recently included post-immunization MIS-A cases. A 74-year-old male was admitted to the hospital due to confusion and altered mental status. He reported that he was febrile for seven days prior to this. The patient had received the second dose of a mRNA vaccine 20 days before the onset of the fever. Low blood pressure, tachycardia, hepatosplenomegaly, that may have pre-existed, and palmar erythema were the findings of clinical examination.
Clinical Hypothesis: CSF examination was performed, and CNS infection was excluded. Blood and urine cultures came up negative. Laboratory tests revealed moderate leukocytopenia, lymphopenia, thrombocytopenia, increased levels of ferritin, IL-6,

 DOI: 10.12890/2022_V9Sup1

triglycerides, procalcitonin, bilirubin, fibrinogen, d-dimers, BNP, troponine and acute kidney injury.
Diagnostic Pathways: Hemophagocytic syndrome was suspected, and a bone marrow biopsy was performed, which revealed increased population of basophiles but no signs of hemophagocytic lymphohistiocytosis.
Discussion and Learning Points: Based on the clinical presentation and the laboratory tests while also considering the biopsy results, a diagnosis of MIS-A was established. The patient was administered methylprednisolone and γ-globulin and two days later he showed signs of recovery followed by the decrease of the inflammatory markers.

2029 / #EV0252

COVID-19 IN HIV PATIENTS: THE EXPERIENCE FROM A COVID-19 UNIT

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Background and Aims: HIV patients consist 1% of hospitalized COVID-19 patients. The hitherto collected data show that HIV patients have higher probability to become more severely ill due to their underlying immunosupression. The aim of this study was to describe our experience from the hospitalization of 8 HIV-COVID-19 coinfected patients.
Methods: From October 2020 until October 2021, we collected and recorded data from 8 HIV patients that were hospitalized with COVID-19. Clinical and laboratory parameters as well as outcomes were recorded for each patient.
Results: 6 men (mean age 52±12.6 years) and 2 women (mean age 55.5±20.5 years) were hospitalized, representing 0,48% of the total number of hospitalized patients in our department (8/1239). The main complaints that drove patients to the hospital were fever (87.5%) and cough (37.5%). Only 2/8 (25%) had AIDS, while the median [IQR] CD4 lymphocyte number was 485 [374-1106] cells/μl. The mean duration of hospitalization was 8±4,2 days and the median Charlson Comorbidity Index (CCI) was 3 [1-5]. The mean pO2/FiO2 ratio on admission was 315,2±60,2. The median disease severity according to the WHO scale was 5 [5-6]. All patients were given dexamethasone and enoxaparin, 6/8 (75%) were given remdesivir, while 1/8 (12.5%) was given tocilizumab. The antiretroviral treatment had to be modified in two patients (25%), due to drug-to-drug interactions. Seven patients (87,5%) got discharged while 1/8 (12,5%) was intubated and died.
Conclusions: HIV infection could be a risk factor for worse outcome in COVID-19 patients. Clinicians should pay attention for possible drug-to-drug interactions with the antiretroviral treatment.

841 / #EV0253

COVID-19: FROM SILENT EXPRESSION TO MULTIORGAN FAILURE

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Case Description: One year and a half after the worldwide recognition of COVID-19, it is known that a small subset of adult patients develops a hyperinflammatory syndrome. A 44-year-old man with a history of diabetes mellitus, ischemic cardiomyopathy, antiphospholipid syndrome, peripheral artery disease with lower left limb amputation and tobacco abuse tested positive for COVID-19, on a pre-procedure screening. Asymptomatic at first and fever as the only symptom until the 13th day after diagnosis, when it starts to develop a multiorgan deterioration with respiratory, renal and hepatic failure associated with haematologic dysfunction. Intense systemic corticotherapy and supportive treatment resulted in a slow but steady positive evolution.
Clinical Hypothesis: Assuming the multiorgan involvement in a COVID-19 patient, COVID-19 hyperinflammatory syndrome (cHIS) was suspected.
Diagnostic Pathways: The persistence of fever, elevated inflammatory markers and hemodynamic instability motivated a performance of a CT scan that showed new venous thrombosis sites. These along with the elevation of inflammatory markers such as hyperferritinemia and increased interleukin-6 accompanied with altered coagulation times, gave us more reasons to assume the diagnosis.
Discussion and Learning Points: Defining COVID-19 cHIS has been challenging. Fever, coagulopathy and hepatic failure, along macrofagocity ativation represents the common features on the clinical criteria and case reports in the current literature. Its early recognition is fulcral to initiate systemic corticotherapy as soon as possible and increase the likelihood of a positive outcome.

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 DOI: 10.12890/2022_V9Sup1

395 / #EV0254

EFFECT OF N-ACETYLCISTEINE ON MORTALITY IN COVID-19 PNEUMONIA

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Background and Aims: We analyze the effect of N-acetylcysteine on mortality in COVID-19 pneumonia.

Methods: This is a retrospective observational cohort study on the effect of N-acetylcysteine (600 mg/12h IV 5-10 days) on mortality, according to the WHO ordinal scale. The study was carried outin 1,115 patients with SARS-CoV-2 pneumonia and SpO2 <94% on day 28 from admission. They were admitted to "Príncipe de Asturias University Hospital" from March to September 2020. The research has been approved by the hospital's CREC. Analysis with binary logistic regression has been performed and adjusted with Propensity Score.

Results: Of the 1,115 patients, 62.2% are male, median age 68 (IQR 55-78) years, with comorbidities (54.0% hypertensive, 24.1% diabetic, 17.7% heart disease, 22.9% chronic lung disease and 23.0% are oncohaematological), median initial SpO2/FiO2 429 (IQR 332 to 452), median initial CRP 78.1 (IQR 33.4-138) mg/L. 6.8% were treated with remdesivir, 34.1% with corticosteroids and 6.6% were admitted to the ICU. They received N-acetylcysteine 885 (79.4%) and not 230 (20.6%). 213 (24.1%) of those who received N-acetylcysteine and 63 (27.4%) of those who did not receive it died (OR 0.84; 95% CI 0.61-1.17; p=0.298). The analysis adjusted for the confounding variables age, sex, immigrant, hypertension, diabetes, dyslipidemia, heart disease, atrial fibrillation, lung disease, chronic kidney disease, neoplasia, immunosuppression, neurological disease, previous antiplatelet, home oxygen, fever, etc. No effect on mortality was observed (OR 0.81; 95% CI 0.53-1.25; p=0.346).

Conclusions: In this observational study, N-acetylcysteine had no effect on mortality in SARS-CoV-2 pneumonia. Randomized and controlled studies are necessary.

2397 / #EV0255

SHOULD LUNG ULTRASOUND BE USED TO GUIDE TOCILIZUMAB INICIATION IN PATIENTS WITH COVID-19 PNEUMONIA?

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Background and Aims: Tocilizumab is part of standard of care treatment in COVID-19. However, there are still questions regarding the best time to start it and which patients would benefit the most.

Methods: Analysis of a cohort of patients hospitalized for COVID-19 pneumonia between February-December 2021. 12-quadrant lung ultrasound was performed on them in the first 24h of admission and LUS scale was calculated.

Results: 128 patients, with a median age of 61.5 years and a mean RALE at admission of 4.1. Patients with LUS >17 presented a worse clinical evolution (need for HFNC/NIV, mechanical ventilation or death at 28d), compared to those with less severe ultrasound (34.4% vs 16.4%,OR 2.7[1.2- 6.2], p=0.019). Of the 61 patients with LUS >17, 16 were treated with tocilizumab. These patients required more HFNC/NIV (56.3% vs 22.2%,OR 4.5[1.3-15.1], p=0.025) and ICU admission (43.8% vs 13.3%,OR 5.1[1.4-18.7], p=0.028), although they had lower mortality (6.3% vs 13.3%) than those who didn't received tocilizumab. In the subgroup of patients with LUS >17 who required HFNC/NIV, only 1/8 patient who received tocilizumab had died at 28d, while 4/10 who didn't, died (11.1% vs 40%); a difference, however, statistically non-significant (p=0.3).

Conclusions: Clinical lung ultrasound on admission can identify patients who will present a worse evolution. In our cohort, patients with more severe pneumonia on ultrasound who received tocilizumab required more HFNC/NIV and admission to the ICU (likely selection bias); however, they had lower mortality than those who weren't treated with tocilizumab. This reduction in mortality was greater in patients who required HFNC/NIV. The early use of tocilizumab should be studied in patients with COVID-19 and LUS >17.

1983 / #EV0256

IS THERE A NEW SIDE EFFECT OF CHADOX1-S VACCINE?

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Case Description: A 78-year-old female, with arterial hypertension, chronic gastritis and osteoarthritis, was admitted

 DOI: 10.12890/2022_V9Sup1

to the Emergency Department with generalized abdominal pain and dysthermia. No remarkable findings on physical examination. Blood tests revealed hepatocellular hepatitis (AST 3121 U/L, ALT 1788 U/L, FA 349 U/L, GGT 945 U/L), in association with increased LDH (2557U/L), without evidence of liver failure. The patient has received the first dose of COVID-19 vaccine (ChadOx1-S) five days earlier. There was no history of ethanol abuse.
Clinical Hypothesis: Acute hepatitis can have several aetiologies. In this particular case, marked elevation of serum aminotransferases (AST > ALT) without liver failure rise suspicious of toxic, viral and ischemic causes.
Diagnostic Pathways: Viral serologies (VHA, VHB, VHC, VHE, HSV, VZ, CMV and EBV), autoimmune markers, with gamma globulins quantification, plasmatic levels of acetaminophen and ceruloplasmine were negative. The patient was also submitted to abdominal ultrasound, with doppler, as well as abdominal CT, which results showed no abnormalities. Because of the spontaneous resolution of hepatic panel, the hepatic biopsy wasn't performed.
Discussion and Learning Points: The diagnosis of acute toxic hepatitis due to the ChadOx1-S vaccine was assumed. Although it wasn't a known side effect of the drug, the exclusion of other causes and the timeline of events were key elements for this conclusion. The suspension of the aggressor trigger is essential to avoid a new episode of acute hepatitis and to prevent its most serious consequence – acute liver failure.

1263 / #EV0257

TG/HDL, CRP/HDL RATIO AND LIPID LEVELS IN COVID-19 HOSPITALIZED PATIENTS: MARKERS OF DISEASE PROGRESSION, SEVERITY AND OUTCOMES. PRELIMINARY DATA FROM A COVID-19 UNIT IN GREECE

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Background and Aims: There are indications that lipid levels are related to the prognosis of COVID-19 disease.
Methods: 346 patients were included, with a mean age of 62.97 years (SD=16.23), 58.1% of whom were male from the COVID-19 Unit of University Hospital of Ioannina. Blood samples for the analysis were obtained during the 1st or the 2nd day of hospitalization.
Results: Mean lipid levels on admission: TCHOL=152.33 mg/dl, TGs=124.35 mg/dl, HDL-C=37.19 mg/dl and LDL-C=90.92 mg/dl. TGs levels were correlated negatively with the PO2/FiO2 ratio (r=-0.118, p=0.03) and positively with CRP (r=0.187, p=0.001) and IL-6 (r=0.308, p<0.001), respectively. HDL-C was positively correlated with CRP (r=0.127, p=0.02), ferritin (r=0.154, p=0.005) and IL-6 (r=0.213, p<0.001). CRP/HDL ratio was positively correlated with IL-6 (r=0.298, p<0.001) and the burden of COVID-19 disease (r=0.348, p<0.001) and negatively with the PO2/FiO2 ratio (r=-0.345, p<0.001). TG/HDL ratio was correlated positively with WBC levels (r=0.166, p=0.003), IL-6 (r=0.170, p=0.003) and CRP (r=0.165, p=0.003) and negatively with the PO2/FiO2 ratio (r=-0.160, p=0.004). A group comparison (A:PO2/FiO2<150 vs B:PO2/FiO2>150) showed a higher mean value of CRP/HDL ratio, by 1.25 units (p-value<0.001) while the TG/HDL ratio was also higher by 0.58 units (p=0.063) in groupA. A comparison between survivors and non-survivors showed a higher mean value of CRP/HDL ratio by 0.79 units (p=0.047) in the non-survivors group.
Conclusions: Lipid serum levels are identified as a significant COVID-19 severity marker, while the laboratory ratios described in the literature are closely related to the prognosis of the patients.

1285 / #EV0258

SERUM LIPID LEVELS, TG/HDL AND CRP/HDL RATIOS, AS PREDICTORS OF COVID-19 DISEASE SEVERITY IN DIABETIC PATIENTS

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Background and Aims: Diabetes mellitus (DM) has emerged as risk factor for severe COVID-19 disease. The aim of this study was to seek for potential relationship between laboratory markers, predictors for disease severity and prognosis in diabetic patients, along with lipid serum levels.
Methods: Data were collected from 509 hospitalized patients between March 2020 and April 2021 in the Infectious Disease Unit of University Hospital of Ioannina. Serum lipids were measured on the first 2 days of admission. T-test was selected for the comparisons between subgroups.
Results: 101 patients (19.9%) had DM. Lipid levels were measured in 346 patients (61 with DM). In the diabetic subgroup 59.4% were also diagnosed with dyslipidemia prior to admission. Mean values were: TCHOL=136.43 mg/dl, TRG=139.50 mg/dl, HDL-C=33.31 mg/dl and LDL-C=77.15 mg/dl. Patients were divided into subgroups (diabetic or not). In the DM subgroup, TCHOL was lower by 19.18 mg/dl (p: 0.001), HDL-C was also lower by 4.68 mg/

 DOI: 10.12890/2022_V9Sup1

dl (p: 0.01), while the TRGs were higher by 18.43 mg/dl (p: 0.065). The TG/HDL ratio was significantly elevated by 1.12 units in the DM subgroup (p: 0.003). CRP/HDL ratio was correlated positively with the durden of disease (r=0.445, p: 0.006) and negatively with PO2/FiO2 ratio (r=-0.340, p: 0.01) with Pearson Correlation test.
Conclusions: Serum lipids have been shown to correlate with COVID-19 disease severity and with respiratory failure in these patients. CRP/HDL ratio could be considered as a useful marker of the disease severity among the diabetic population.

1448 / #EV0259

FREQUENCY OF ACID-BASE BALANCE DISORDERS IN COVID-19 PATIENTS. DATA FROM INHOSPITALIZED PATIENTS

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Background and Aims: Acid-base balance disorders are expected in an infectious disease. The purpose of the study was to find potential disorders of the acid-base balance in COVID-19 patients.
Methods: Data was obtained from 334 hospitalized patients, during the period 02/2020-12/2020. The analysis was done with a non-parametric Mann-Whitney U test and Fisher's Exact test, on the platform R v 4.0.5.
Results: Elevated levels of bicarbonates (HCO3-) on the 1th day of admission were present in 114 patients (34.1%) while decreased levels in 151 (45.2%). Hypochloremia was observed in 1.4% (5 patients) while hyperchloremia was recorded in admission in 28.4% (95) of patients. The disturbances of the acid-base equilibrium recorded by the analysis of data (n= 242), were: (the primary disorder of the acid -base balance is mentioned first) Metabolic acidosis: 9 (2.6%), metabolic acidosis and respiratory acidosis: 2 (0.8%), metabolic acidosis and respiratory alkalosis: 15 (6.1%), metabolic acidosis and respiratory alkalosis and metabolic acidosis with increased HA: 1 (0.4%), metabolic alkalosis: 2 (0.8%), metabolic alkalosis and respiratory acidosis: 2 (0.8%), metabolic alkalosis and respiratory alkalosis: 2 (0.8%), respiratory acidosis: 1 (0.4%), respiratory acidosis and metabolic acidosis: 2 (0.8%), respiratory alkalosis: 48 (19.8%), respiratory alkalosis and metabolic acidosis: 27 (11.1%), respiratory alkalosis and metabolic acidosis and metabolic alkalosis: 1 (0.4%), respiratory alkalosis and metabolic alkalosis: 130 (53.7%)
Conclusions: In this sample of patients it is observed that the most common acid-base balance disorder is respiratory alkalosis, either properly compensated or with concomitant metabolic alkalosis.

1795 / #EV0260

OLFACTORY AND TASTE DYSFUNCTION IN DIABETIC POPULATION

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Background and Aims: The purpose of this study is to define the effect of SARS-CoV-2 infection on the senses of smell and taste and search for potential relationship with a medical history of diabetes mellitus (DM) and/or arterial hypertension (AH).
Methods: Data was collected from 300 adults (using questionnaires), positive for SARS-CoV-2 by RT-PCR. 150 patients recovered at home and 150 required admission to the Infectious Disease Unit of University Hospital of Ioannina. Statistical analysis was conducted on IBM-SPSS Statistics 26.0, using X2 and Fisher's exact test.
Results: 6.33% of the population reported a medical history of DM. 11.71% reported AH, while 5.67% dyslipidemia and 3.67% cardiovascular disease. Patients with anosmia had lower prevalence of DM (1.67% vs 4.67%, p=0.011) and AH (4.3% vs 7.3%, p = 0.02). In terms of dysgeusia, no significant difference was found. Patients with dysgeusia had lower prevalence of AH (4.0% vs 7.6%, p=0.047). The subgroups of patients with comorbidities, DM and AH respectively, were more likely to require hospitalization for SARS-CoV-2 infection, in comparison with the rest (18 patients versus 1 and 27 patients versus 8, p=0.001 and p<0.001, respectively).
Conclusions: The tested sample did not show that DM or AH had an increased risk of smell and/or taste disorders. Moreover it was shown that these patients are more prone to hospitalization. However, a larger sample of patients is required to draw concrete conclusions.

 DOI: 10.12890/2022_V9Sup1

990 / #EV0261

BRADYCARDIA ASSOCIATED TO REMDESIVIR THERAPY IN SARS-COV-2 INFECTION: A RETROSPECTIVE MULTICENTER EXPERIENCE OF INTERNAL MEDICINE DEPARTMENTS

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Background and Aims: Although bradycardia is not mentioned as adverse event of remdesivir in the technical sheet, several cases have been recently reported during its administration in SARS-CoV-2 patients. Therefore, we considered the experience of several internal medicine wards to evaluate the occurrence of remdesivir-related bradycardia in SARS-CoV-2 patients and to assess the correlations connected to the event.

Methods: Heart rate values of the day prior to remdesivir administration (HRb) and those relating to the 5-day treatment and the 5-day post-treatment were considered for the analysis. ΔHR values were calculated as maximum HR drop versus HRb. Regression analysis was performed between ΔHR and HRb, age, sex, baseline alanine aminotransferase levels (bALT) and other therapies.

Results: Out of 62 patients considered into the analysis, 34 developed bradycardia (54.8%, HR<60 bpm). Patients who presented bradycardia had higher bALT. Four patients discontinued remdesivir, three of them due to onset of severe bradycardia (HR~45 bpm), the fourth due to a marked increase in transaminases. The HR progressively decreased with daily administration of remdesivir, reaching the nadir (-11.2 bpm) on the day 6. Regression analysis showed that ΔHR was positively associated with HRb and bALT.

Conclusions: The active metabolite GS-441524 of remdesivir has been shown to reduce the automaticity of the sinus node and accumulates by ~2-fold after multiple daily dosing with a steady state around day 4. Therefore, clinicians should be aware of the potential cardiac effects of this drug and further studies are required to profile patients at higher risk of developing remdesivir-related bradycardia.

249 / #EV0262

CLINICAL CHARACTERISTICS OF PATIENTS WITH AND WITHOUT OXYGEN THERAPY ADMITTED FOR COVID19.

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Background and Aims: Describe the clinic of patients with and without oxygen therapy admitted for COVID-19 from March 2020 to January 2021 in our hospital.

Methods: Retrospective descriptive study of a cohort of all patients with COVID-19 admitted to the Infectious Diseases Service at the Infanta Elena Hospital from March 2020 to January 2021. Those patients with SARS-CoV-2 infection documented by PCR of the nasopharyngeal exudate and interstitial pneumonia were analyzed.

Results: A cohort of 63 patients with a mean age of 65 years was analyzed, of which 36 (61.9%) required oxygen therapy during admission versus 27 (38.09%) who did not.

In the cohort with oxygen therapy, there were more men (63.9%) than women (36.1%), with an overall mean age of 64 years. They mainly presented fever (70.4%), cough (70.4%), myalgia and arthralgia (48.1%), headache (22.2%), chest pain (11.1%), rhinorrhea (7.4%), ageusia (7.4%), anosmia (11, 1%), diarrhea (3.7%) and nausea and vomiting (14.8%).

The cohort of patients who did not require oxygen therapy was 59.6% male and 40.7% female, with an overall mean age of 58 years. The most frequent symptoms were fever (86.1%) and cough (83.3%), followed by headache (11.1%), myalgias and arthralgias (38.9%), rhinorrhea (8.3%), ageusia (8.3%), anosmia (8.3%), diarrhea (11.1%), and nausea and vomiting (8.3%).

Conclusions: The most prevalent symptoms in both groups were fever, cough, myalgias and arthralgias; without influencing the need for oxygen therapy during admission. Chest pain was a characteristic symptom of the group that required oxygen therapy, absent in the group of patients who did not require it.

510 / #EV0263

SCURVY AND CRITICAL COVID-19 IN EUROPE: PANDEMICS BYSTANDERS.

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Case Description: A 63-year-old man with type 2 diabetes presented with asthenia, weight loss and cutaneous lesions. He mentioned cough for the last three days. He was unemployed and could not afford medication. His diet consisted of sparse amounts of bread and seldom fruit. The patient was ill-appearing

 DOI: 10.12890/2022_V9Sup1

and febrile. Body-mass index was 16.2. He had swan-neck hair and haemorrhagic suffusions, including conjunctival and gingival bleeding and palpable purpura. The laboratory evaluation revealed elevated inflammatory markers, A1c 15,1%, anaemia with iron and folate deficiency, and unmeasurable vitamin C. SARS-CoV-2 test and Streptococcus pneumoniae urinary antigen were positive. A thorax CT scan revealed bilateral interstitial pneumonitis with associated pneumonia. The patient was started on dexamethasone, amoxicillin/clavulanate and ascorbic acid. The patient's evolution was adverse. He developed severe respiratory failure and transferred to the intensive care unit.
Clinical Hypothesis: Given the pandemic context, COVID-19 was suspected. The cutaneous findings were suspicious for scurvy.
Diagnostic Pathways: SARS-CoV-2 infection was diagnosed by protein-chain reaction assay. Imaging confirmed pneumonitis with pneumonic infection. The diagnosis of scurvy was established by clinical and laboratory criteria.
Discussion and Learning Points: Scurvy is a rare disease in developed countries. It is associated with malnourishment, refugee and poor social status. The SARS-CoV-2 pandemics had a negative impact in global economics and social security. At an individual scale, this patient presented suffered these consequences leading him to adopt a poor diet and developing scurvy. This diagnosis implies a high clinical suspicion, though in this case manifestations were exuberant. He was ultimately diagnosed and treated because he resourced to the hospital with critical COVID-19.

525 / #EV0264

RELATIONSHIP BETWEEN FERRITIN AND OXYGEN THERAPY IN SEVERE COVID-19

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Case Description: A 67 years-old woman presented with dyspnoea and chest pain. She was diagnosed with pulmonary embolism causing cardiac and type 1 acute respiratory failure, requiring a maximum oxygen therapy corresponding to FiO2 0.32. She improved with anticoagulation, having PaO2 78 mmHg and P/F 371 in room air. A nosocomial SARS-CoV-2 infection was detected before discharge. By then, ferritin was 466 mcg/L. In the fifth day of infection, ferritin increased to 2703 mcg/L. Two days after, the patient reported new-onset dyspnoea and developed overt respiratory failure (PaO2 65 mmHg, FiO2 0,24, P/F 270). That same day ferritin increased to 5198 mcg/L. The oxygen requirement increased reaching a maximum of FiO2 0,36 two days after (PaO2 77 mmHg, P/F 213). In the following days, there was a progressive decrease in ferritin followed by an improvement of respiratory function and decrease of oxygen requirement.
Clinical Hypothesis: Severe COVID-19.
Diagnostic Pathways: SARS-CoV2 PCR.
Discussion and Learning Points: Most patients with severe COVID-19 have serum ferritin >800 mcg/L. The production of ferritin is stimulated by interleukin-6, which in turn plays a pivotal role in the cytokine storm. By the time this case was written, it had just been postulated that elevated ferritin predicted the degree of systemic inflammation. In COVID-19 the lung is the main target-organ of systemic inflammation. It is interesting to notice that variations in ferritin seem to predict, with more than 24 hours, variations in the oxygen requirements. Being a reliable measure of systemic inflammation, variations in ferritin predict the ventilatory repercussion of COVID-19 and consequent oxygen requirement.

379 / #EV0265

ANXIETY SCREENING IN COVID-19 + PATIENTS, IN THE POPULATION OF ALJARAFE'S SEVILLIAN.

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Background and Aims: Due to the COVID-19 pandemic, there's a higher incidence of mental health disorders. A part of society suffers from some concern because of this, due to its health, family and economic implications. The objective is to assess the psychological impact, anxiety and depression in patients with COVID-19.
Methods: Descriptive cross-sectional study conducted in hospitalized patients with COVID-19 infection and followed up in consultation (TeleCovid). Tools: HADS scale (Hospital Anxiety and Depression Scale), consists of two subscales (HADA: anxiety and HADD: depression) of 7 items each, with scores between 0-3 for each item. In the global evaluation, 0-7 points are considered there is no anxiety / depression, 8-10 points are doubtful cases and 11 points or more are confirmed. The responses were recorded in Google Forms.
Results: There were included 35 patients (32 hospitalized and 3 at TeleCovid) and excluded 14 patients (not competent or not have a telephone device). There was 61.9% of men and 38.1% of women, a 33.3% between 30-50 years old, 57.2% between 51-70 years old and 9.5% are over 70 years old. The 95.2% of patients live accompanied and 4.8% alone. In the anxiety subscale, we found

 DOI: 10.12890/2022_V9Sup1

33% of patients without symptoms, 43% doubtful cases, and 24% confirmed. In the depression subscale, 76.2% of patients without symptoms, 14.3% doubtful and 9.5% confirmed.
Conclusions: Most of COVID-19 patients have symptoms of anxiety, while few have symptoms of depression. The study suggests that COVID-19 affects the mental health, feeling more concerned about it despite feeling comfortable during its follow-up.

285 / #EV0266

SERIOUS ACUTE RESPIRATORY SYNDROME (SARS) IN PATIENTS HOSPITALIZED IN JUIZ DE FORA- MG- BRAZIL

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Background and Aims: The current COVID-19 pandemic is one of the main etiologies for severe acute respiratory syndrome (SARS), and has resulted in numerous fatal outcomes. The objective is to describe the profile of patients hospitalized for SARS (including COVID-19) in the city of Juiz de Fora, Brazil.
Methods: Exploratory research by cross-sectional design with data collected through the 'Dictionary of the Epidemiological Surveillance Information System with registration of admissions by COVID-19', from the Ministry of Health, between March and December 2020. Subjects were patients hospitalized for SARS in Juiz de Fora. Significant p value <0.05.
Results: RESULTS: 3381 patients were hospitalized for SARS. COVID-19 was confirmed in 57.7%, and 44.9% needed an Intensive Care Unit and 28.3% died. Age 60.90±21.23 years; subjects were 52.25% male and 47.8% Caucasian. Analyzing deaths among people with SARS were statistically significant variables like: the elderly with O2 saturation<95%, the need for respiratory support, patients with diabetes mellitus (DM), chronic kidney disease and neurological . Among the confirmed COVID-19 cases, there was statistical significance for males, for fever, cough, sore throat, diarrhea, respiratory distress, DM, O2 saturation<95 %, need for ventilatory support and death. The flu vaccine demonstrated protective behavior for SARS, but not COVID-19.
Conclusions: The sample was high during the study period, as well as the confirmed prevalence of COVID-19. Respiratory symptoms signaled more severe outcomes, especially among the elderly and those with previous chronic conditions. The flu vaccine probably exerted a protective factor among SARS patients in general but not among those confirmed with COVID-19.

1007 / #EV0267

PNEUMOTHORAX IN A COVID-19 PATIENT

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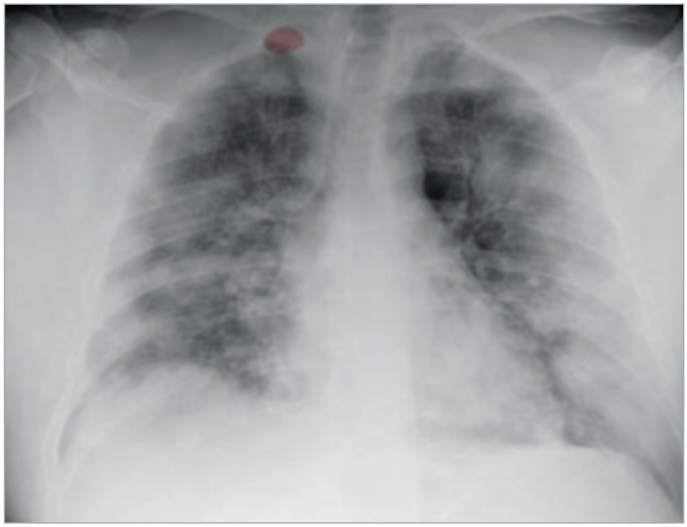
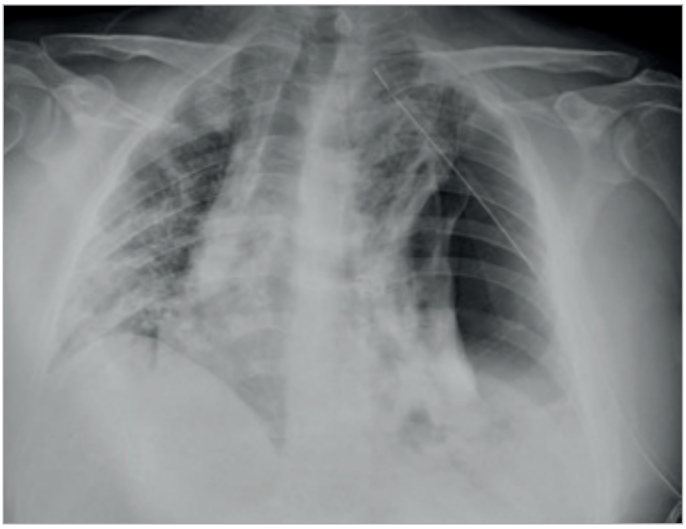
Case Description: 41-year-old male patient, with obesity and bronchial hyperresponsiveness, who came to the emergency room due to a dry cough of 6 days of evolution and fever. PCR was performed for SARS-Cov-2 3 days previously, and was positive.
Clinical Hypothesis: Is it common to find a pneumothorax in patients with SARS-Cov2 pneumonia?
Diagnostic Pathways: Pruebas de laboratorio: linfopenia (770 linfocitos / mm3), PCR 174 mg / dL, Ferritina> 1000 ng / dL y D-dímeros 1200 mg / dL. Radiografía de tórax: infiltrados intersticiales en vidrio esmerilado bilaterales.
Discussion and Learning Points: The clinical interest of this study lies in the infrequency of finding a pneumothorax associated with bilateral SARS-CoC-2 pneumonia. The relative frequency of pneumothorax in the COVID-19 group was 0.05 per 1000. The formation of the pneumothorax could have been facilitated given the pathophysiological characteristics of this infection. The release of a cytokine storm that causes direct injury to the lung parenchyma, and establishes a prothrombotic state of the patient with the formation of microthrombi in the pulmonary microcirculation, as well as the dysregulation of pulmonary vascular tone that all this entails, leads to deterioration of the alveolus-capillary membrane. In addition, a persistent cough and treatment with BIPAP must be taken into account, which increase transpulmonary pressure, as well as a possible bacterial superinfection that further alters the alveolar-capillary membrane.



#EV0267 Figure 1: Radiografía de tórax posterior: hidroneumotórax derecho.

 DOI: 10.12890/2022_V9Sup1



#EV0267 Figure 2: Diagnóstico definitivo establecido: neumonía secundaria a infección por SARS-Cov-2 con pneumotrax asociado.

396 / #EV0268

NEED OF PERSONALIZED COMBINATION IMMUNOTHERAPIES FOR SARS-COV-2 INFECTION: FINAL REPORT OF A LARGE COHORT OF CONSECUTIVE COVID-19 PATIENTS

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Background and Aims: Infection by SARS-CoV-2 may lead to severe respiratory failure development (SRF). In hospitalized-patients, prompt interruption of the inflammatory process using combination immunotherapies seems of outmost importance. We aimed to investigate the hypothesis of multifaceted management of these patients.

Methods: A treatment algorithm based on ferritin was applied in 710 patients (57.3% males; median age 64-years; moderate disease, n=242; severe, n=468). Patients with ferritin <500 ng/mL received anakinra 2-4mg/kg/day ± corticosteroids (n=359) while those with ≥500 ng/mL anakinra 5-8 mg/kg/day ± corticosteroids ± γ-globulins (n=351). In case of no improvement, a single-dose of tocilizumab (8 mg/kg; maximum 800 mg) was administered with the potential of additional second and/or third pulse. Treatment-endpoints were the rate of SRF necessitating intubation and mortality. The proposed algorithm was also validated in a matched-group of hospitalized-patients treated with standard-of-care during the same period.

Results: Intubation and mortality rates were 5.6% and 5.9% (0% in moderate; 8.5% and 8.9% in severe). Independent risk factors were the low baseline pO2/FiO2, older age and increased LDH. Comparators had significantly higher intubation (HR=7.4; 95%CI: 4.1-13.4; p<0.001) and death rates (HR=4.5, 95%CI: 2.1-9.4, p<0.001). Significant adverse events were rare, including severe secondary infections in only 11/710 of patients (1.5%).

Conclusions: Early administration of personalized combinations of immunomodulatory agents which block critical inflammatory pathways of IL-1 and IL-6, seems to result in improved outcome of hospitalized-patients with COVID-19. This immediate (the sooner the better) precision medicine schedule proved very efficient to avoid the development of full-blown acute respiratory distress syndrome and improve survival.

2077 / #EV0269

FATAL RHINO-ORBITAL MUCORMYCOSIS COMPLICATING SUCCESSFUL TREATMENT OF COVID-19: THE DOUBLE-EDGED SWORD OF IMMUNOMODULARY INTERVENTIONS

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Case Description: A 72-year-old man with a history of uncontrolled diabetes, chronic kidney disease and alcohol abuse was admitted to our department due to 2-days pyrexia, new onset developed exophthalmos and ophthalmoplegia bilaterally, inflammation of the facial soft tissue and hard palate's necrotic lesions. He had been recently treated with prednisolone, intravenous γ-globulin and tocilizumab due to COVID-19 with accompanied macrophage activating syndrome.

Clinical Hypothesis: Invasive fungal infection, probable mucormycosis.

Diagnostic Pathways: Imaging study was performed and tissue biopsy and culture were scheduled. Computed tomography of the skull revealed ethmoid and sphenoid sinuses occupation, left sphenoid bone erosions without lung involvement. Maxillary antrostomy, ethmoidectomy and sphenoidotomy were performed and diagnosis was established by histopathological examination

 DOI: 10.12890/2022_V9Sup1

that revealed aseptate broad hyphae and sporangia containing sporangiospores compatible with invasive mucormycosis. The diagnosis was confirmed by tissue culture as well. On presentation, with the clinical diagnosis of invasive fungal infection, he was started on high doses of intravenous liposomal amphotericin B. He was admitted to the intensive care unit where second surgical intervention was performed, but he died 11 days later due to septic shock and multiorgan failure.

Discussion and Learning Points: Immune dysregulation caused by SARS-CoV-2, combined with patients' poor health status and immunomodulatory medical interventions can cause fatal opportunistic invasive fungal infections, such as mucormycosis. Physicians should be aware of the possible risk factors in the era of COVID-19, as the prognosis is poor and prompt diagnosis is of outmost importance. Treatment involves combination of extensive surgical debridement and antifungal therapy.

919 / #EV0270

A ONE-YEAR SURVIVAL ANALYSIS OF HOSPITALIZED PATIENTS FOR SARS-COV2 INFECTION

Martín Gericó Aseguinolaza, Paula Aragonés Pequerul, Laura Peiro Muntadas, María del Mar García Andreu, Anxela Crestelo Vieitez, María Sabina Gimeno Mingueza, Pablo Sampietro Buil, Jesus Díez Manglano

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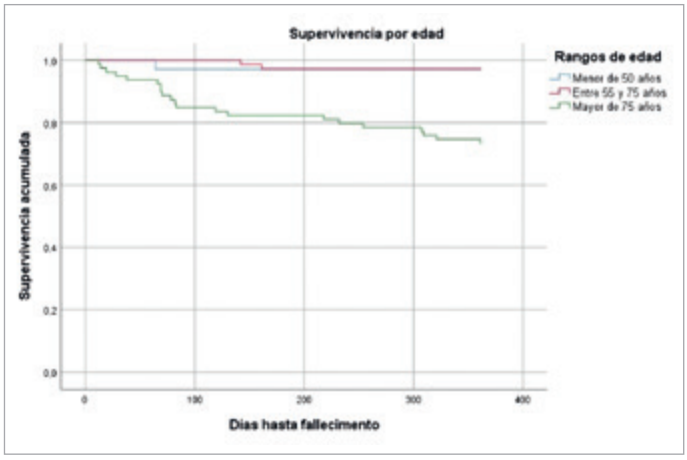
Background and Aims: To determine mortality in hospitalized patients for SARS-CoV2 infection and factors than can be involved.

Methods: A prospective observational study. It enrolled SARS-CoV2 infected patients discharged from our hospital centre between 1st March and 30th June of 2020. Data were collected on age, sex, comorbilities (Charlson comorbility index), corticosteroid therapy during hospitalization, one-year survival and cause of death. A one-year follow-up was done.

Results: 187 patients were included (103 men, 84 women). Mean age was 69.9 (16.7). Charlson comorbility index mean score was 1.53 (1.87) and 78 patients received corticosteroid therapy (41.7%). During the year of follow-up, 24 (12.8%) patients died, one (2.86%) of them was under 55 years-old, 2 (2.74%) between 55 and 75, and 21 (26.58%) older than 75. No significant differences in one-year survival were found for sex (p=0.097), corticosteroid therapy (p=0.576) or Charlson comorbility index (p=0.097). A significant difference in outcome was observed between age, with a higher risk in advanced age (Hazard ratio= 1.107; p<0.001). Attached images show up Kaplan-Meier curve depending on parametres analyzed. Bacterial pneumonia (11 cases, 5.9%), urinary sepsis (2 cases, 1.1%), respiratory failure (2 cases, 1.1%), heart failure, gastrointestinal bleeding, urinary tract infection, infected pressure ulcers, pancreatic neoplasia, and stroke (1 case each, 0.5%) were the main causes of death. In two cases the cause of death could not be recovered.

Conclusions: Advanced age was the main risk factor for one-year mortality in hospitalized patients for SARS-CoV2 infection. No statistically significant difference was found in corticosteroid therapy during hospitalization.



#EV0270 Figure 1.

1202 / #EV0271

DIFFERENCES IN MORTALITY, DEVELOPMENT OF PNEUMONIA, NEED FOR HFNC AND THE LENGTH OF HOSPITAL STAY BETWEEN VACCINATED AND UNVACCINATED PATIENTS FOR SARS-COV-2

Martín Gericó Aseguinolaza, Anxela Crestelo Vieitez, María del Mar García Andreu, Paula Aragonés Pequerul, Laura Peiro Muntadas, María Sabina Gimeno Mingueza, Pablo Sampietro Buil, Jesus Díez Manglano

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Background and Aims: To determine if there are differences in survival, development of pneumonia, need for High Flow Nasal Cannula (HFNC) and the length of hospital stay between vaccinated and unvaccinated patients hospitalized for SARS-CoV2 infection.

Methods: Observational study. Patients admitted in our center for SARS-CoV-2 infection from 01/01/2020 to 30/09/2021 were included. Data were collected on age, sex, comorbidity (diabetes mellitus, hypertension, smoking, immunosuppression), functionality (dependency, institutionalization), anti-SARS-CoV-2 vaccination, development of pneumonia, need for HFNC, length of hospital stay and mortality during admission.

Results: 574 patients were included, with a mean age of 74 (16.4) years and 52.4% women. The prevalence of diabetes was 24.7%, high blood pressure 62.2%, smoking 25.8%, immunosuppression 2.3%, dependency 43% and institutionalization 30.1%. 75 (13.1%) patients had received anti-SARS-CoV2 vaccination. The mean stay was 11.95 (8.89) days. The overall prevalence of pneumonia was 76.8%, the need for HFNC was 4.5% and death was 24%. Both age (p<0.001) and the prevalence of immunosuppression (p<0.001) and diabetes (p=0.003) were significantly higher in the vaccinated group. Older age, dependency, diabetes, and smoking

 DOI: 10.12890/2022_V9Sup1

were associated with a higher risk of death during admission. Vaccination was not associated with changes in mortality (OR 0.541 p=0.062), the need for HFNC (OR 1.114 p=0.866) or the length of hospital stay (B=0.582 p=0.612). Vaccination was associated with a lower risk of pneumonia (OR 0.561 p=0.032).
Conclusions: Vaccination decreased the risk of pneumonia, but not mortality, the need for HFNC, or the length of hospital stay.

1193 / #EV0272

VITAMIN D SUPPLEMENTATION IN COVID-19 PATIENTS: A SYSTEMATIC REVIEW.

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Università del Piemonte Orientale Amedeo Avogadro, S.C.D.U. Medicina Interna, Novara, Italy

Background and Aims: 1,25-dihydroxyvitamin D is a steroid hormone involved in mineral ion regulation and bone homeostasis. However, novel functions have been explored, among which an immunomodulatory role. Molecular studies demonstrate the importance of the exacerbated immune response to SARS-CoV-2 infection (cytokine storm) in severe COVID-19. The complex pathophysiology involves several homeostatic factors, as vitamin D deficit: in this setting, the vitamin D immunomodulatory activity is promising and further supported by the protective properties of vitamin D supplementation in other acute viral respiratory infections. The aim of this study is to systematically review the current literature addressing the effect of vitamin D supplementation in COVID-19.
Methods: A comprehensive literature search was carried out using pre-defined keywords of articles published on PubMed including RCTs, observational and case-control studies investigating vitamin D supplementation effects in COVID-19 patients.
Results: We identified 8 studies and evaluated the impact of vitamin D supplementation on different outcomes: inflammatory markers changes, SARS-CoV-2 infection severity, in-hospital lenght of stay and mortality. 3 RCTs, 3 cohorts studies and 1 case series claim that vitamin D supplementation improves infection severity and mortality, despite different posology and modality of administration. 1 RCT and 1 cohort study demonstrate that, among hospitalized patients, a single high dose of vitamin D3, compared with placebo, do not significantly reduce admission to ICU nor mortality.
Conclusions: Vitamin D supplementation might be associated with improved clinical outcomes in COVID-19 infection. However, issues regarding dosage, duration, and modality of administration remain unanswered and need further research.

1772 / #EV0273

IMPACT OF THE COVID-19 PANDEMIC ON MORTALITY AND HOSPITAL ADMISSIONS PROFILE OF PATIENTS WITHOUT COVID-19

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Background and Aims: Describe the impact of the first pandemic wave on the frequentation and mortality of patients without COVID-19 at the Hospital Virgen del Rocío in Seville.
Methods: Observational, descriptive and retrospective study in which were included all patients admitted to this hospital between 27th February and 7th June 2020 (first period: first pandemic wave in Seville) and comparing with the same period in 2017, 2018 and 2019. A similar analysis was performed for a second period: excess mortality period during the first pandemic wave (17th March-to-24th April, 2020).
Results: In the first period, 10271 admissions without COVID-19 and 323 with COVID-19 were registered in 2020 and an annual mean of 14037 in 2017-2019 (p <0.001) with an excess of in-hospital mortality of 25.5% was observed. In the second period, 2900 admissions without COVID-19 were registered in 2020 and an excess of in-hospital mortality of 58.7% was observed. Hospitalization in 2020 was an independent risk factor for mortality during the second period.
Conclusions: 1. During the first wave of the COVID-19-pandemic, the total number of admissions was reduced in relation to the previous three years and there was a change in the profile of hospitalized patients (increase in mean age and severity).
2. There was an excess of indirect mortality due to SARS CoV-2, more pronounced in the second period, not previously described.
3. This study makes it possible to quantify the enormous impact of the first pandemic wave on the morbidity and mortality of patients without COVID-19.

 DOI: 10.12890/2022_V9Sup1

2416 / #EV0274

EVALUATION OF THE SEIMC SCORE AS A DEATH PREDICTOR OF SARS-COV-2 PNEUMONIA IN VACCINATED PATIENTS - A VALIDATION COHORT

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Background and Aims: The contribution of COVID-19 immunisation raises the question of whether the prognostic scores developed in a non-vaccine environment are still valid in the present situation. Hence, we performed a study investigating the utility of the Spanish Society of Infectious Diseases and Microbiology (SEIMC) score to predict 28-days mortality in vaccinated patients with SARS-CoV-2 pneumonia.
Methods: This study included adults with confirmed SARS-CoV-2 infection by polymerase chain reaction (PCR) within the first 24 hours of admission from 01 January 2021 to 14 September 2021. All patients with suspected bacterial superinfection, unable to cooperate or who voluntarily refused to be included in the study were excluded. The SEIMC score was calculated at admission, and we analysed its correlation with 28-days mortality.
Results: We included 127 patients. Among them, 92 were unvaccinated, 17 one-dose vaccinated and 18 two-doses. For baseline characteristics of the patients, median age, neutrophil-to-lymphocyte ratio and estimated glomerular filtration rate were significantly higher in the two-doses subgroup than in unvaccinated or one-dose. The majority of participants were males, with no significant differences between subgroups. We found statistically significant differences between the number of vaccinations according to the SEIMC score classification. The SEIMC score and 28-days mortality were significantly correlated in the whole cohort (p=0.001), in unvaccinated patients (p=0.001) and in those with some vaccine doses (p=0.003) or two-doses (p = 0.005), but not in one-dose vaccinated patients (p=0.235).
Conclusions: The SEIMC score remains a useful scale for predicting 28-day mortality in vaccinated patients.

2600 / #EV0275

HAEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS IN A 44-YEAR-OLD PATIENT WITH COVID -19 PNEUMONIA

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Case Description: A 44-year-old female patient admitted into the COVID-19 hospital ward presents persistent fever and morbilliform exanthema, despite treatment with anakinra, intravenous dexamethasone and therapeutic-dose bemiparin. Chest CT-angiography showed moderate pneumonia; and laboratory tests revealed severe hypertransaminasemia, dissociated cholestasis, elevated acute phase reactants (with ferritin up to 15,438 mg/dl), cytopenias and hypofibrinogenemia.
Clinical Hypothesis: Moderate COVID-19 pneumonia, cytokine release syndrome and hyperferritinemic syndrome.
Diagnostic Pathways: Proteinogram, autoimmune profile, serology for virus, Leishmania PCR and whole-body CT-scan were performed; all of them negative. We performed a bone marrow aspiration, which revealed significant haemophagocytosis. Subsequently, we calculated the H-Score, with a 93-96% probability (211 points) for haemophagocytic lymphohistiocytosis (HLH). After increasing the dose of dexamethasone and introducing Tocilizumab to the treatment, the patient corrected the analytical alterations and the clinical manifestations ceased.
Discussion and Learning Points: HLH is an autoinflammatory syndrome. Its aetiology may be primary or, more frequently, secondary to viral infections (mainly Epstein-Barr virus). However, the association with SARS-CoV-2 is rarely described. It is challenging to diagnose associated COVID-19 and HLH, as clinical and analytical findings are remarkably similar. The H-score may show false positives, so clinical findings as hepatomegaly or pancytopenia may help. Also analytical markers such as sCD25 and sCD163 can support the differential diagnosis. The limited evidence suggests the use of dexamethasone, anakinra or tocilizumab for co-treatment.
HLH should be suspected in COVID-19 patients with hyperferritinaemia >10,000 mg/dl, hypertransaminasemia, cytopenias and hypofibrinogenemia.
Analytical sCD25 and sCD163 can support the differential diagnosis.
Dexamethasone, anakinra or tocilizumab might be useful for co-treatment.

 DOI: 10.12890/2022_V9Sup1

753 / #EV0276

HOME HOSPITALIZATION AND COVID-19; DIFFERENCES IN THE CHARACTERISTICS OF PATIENTS AND THEIR PATHOLOGIES

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Background and Aims: Objectives To know the differents features among the patients admitted to Home Hospitalization in a third level hospital during the year of the pandemic caused by SARS-COV-2, compared to the previous year.
Methods: A retrospective descriptive study including a cohort of 223 patients admitted from March 15, 2020 to March 15, 2021, and another cohort of 356 patients admitted from March 15, 2019 to March 14, 2020. comparing demographic data, pathologies that motivated the admission, and treatments administered.
Results: In 2020, a total of 223 patients (44.8% women and 55.2% men) were admitted to our unit compared to the 356 admissions of the previous year (45.5% women and 54.5% men). The average of patients admitted in 2020 was 71.6 years, while in 2019 it was 73.7. If we take into account the origin of the visit, in 2020 195 patients resided at home and 28 patients were treated in their residences, compared to 272 attended at home and 84 at their residence in the previous year, finding in this data the most notable difference. Regarding the diagnoses on admission, the main difference was found into respiratory etiology; in 2020, the patients admitted for this cause were 6.3% while in 2019 those admitted for this reason were 26.9%.
Conclusions: The SARS-COV-2 pandemic has had a very important impact on the health system, affecting all levels of care. In our department, we have found important differences, especially at the level of origin and healthcare setting, as well as the pathologies that motivated the patients to be admitted.

1155 / #EV0277

DOES GENDER AND AGE PLAY AN IMPORTANT ROLE ON SURVIVING COVID-19?

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Background and Aims: Novel coronavirus disease 2019 (COVID-19) was crowned as the second pandemic of the twenty-first century. Aims: To evaluate the impact of age and gender in the mortality rate of patients with SARS-COV-2 infection.
Methods: Observational study which includes patients hospitalized with SARS-COV-2 infection in an internal medicine ward, from March 1st until December 31st of 2020. Gender and age were assessed by reviewing the medical records. Comparison of mortality rates between gender and age were made using chi-square and Mann- Whitney U test.
Results: 78 patients with confirmed SARS-COV-2 infection were hospitalized, 44 (56.4%) were male and 34 (43.6%) were female. The global mortality rate was 26.9% (21 patients), resulting in male mortality rate of 27.3% (12 patients) and female mortality rate of 26.5% (9 patients). There was no statistically significant difference between gender and mortality rate (p 0.937 chi-square). The median age of patients was 76,72 years (range from 34 to 93). The most represented age group was [81-90] years with 32 patients. There was statistically significant difference between age and mortality (p< .001 Man-Whitney U). The increment in mortality rate is noticeable when compared between the different age groups, being of 11,76% in age group [71-80], 43,75% [81-90] and 50% [91-100].
Conclusions: The results of our study showed a higher mortality in older patients infected with COVID-19.

1185 / #EV0278

PERSISTENT SARS-COV-2 VIRAEMIA 27 WEEKS AFTER SARS-COV-2 INFECTION DIAGNOSIS IN A PATIENT TREATED WITH RITUXIMAB FOR NON-HODGKIN LYMPHOMA

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Case Description: A 77-year-old woman was admitted to our hospital in March 2021 due to SARS-CoV-2 pneumonia manifested by cough, dyspnea, fatigue and hypoxemia. Thoracic computed tomography scan showed multiple bilateral ground glass opacities. The patient had a medical history of non-Hodgkin lymphoma. In September 2020, rituximab-bendamustine was initiated due to lymphoma relapse. The fourth and last cycle was administered 8 weeks before COVID-19 diagnosis. SARS-CoV-2 pneumonia was treated with dexamethasone. During the 5 months following hospital discharge, SARS-CoV-2 RNA was persistently detected in nasopharyngeal swab by real-time polymerase chain reaction. In August 2021, the patient was readmitted because of clinical deterioration and hypoxemia.
Clinical Hypothesis: Persistent SARS-CoV-2 infection due to delayed viral clearance.
Diagnostic Pathways: Complete B cell depletion, hypogammaglobulinemia (IgG, 551 mg/dL; IgA, 8 mg/dL; IgM, 13 mg/dL) and serum SARS-CoV-2 RNA were documented; serum anti-SARS-CoV-2 antibodies were undetectable. Despite treatment with remdesivir and Ig replacement, 27 weeks after

 DOI: 10.12890/2022_V9Sup1

SARS-CoV-2 infection diagnosis, SARS-CoV-2 RNA (32.66 copies/mL) is still detectable in serum. The patient was proposed for convalescent plasma administration.
Discussion and Learning Points: The role of immunosuppression in COVID-19 outcome is not clear. Some immunosuppressive drugs can potentially improve COVID-19 course by suppressing the host´s uncontrolled immune response. Conversely rituximab, an anti-CD-20 antibody used in the treatment of haematological malignancies and auto-immune diseases, are associated with delayed viral clearance and severe COVID-19. Patients treated with rituximab have a severe combined cellular and humoral immunodeficiency and fail to develop anti-SARS-CoV-2 antibodies, which may be the cause of persistent infection and the worse prognosis of COVID-19.

1269 / #EV0279

CLINICAL CHARACTERISTICS OF HOSPITALIZED COVID-19 PATIENTS AFTER COMPLETE VACCINATION

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Background and Aims: Despite COVID-19 vaccine's efficacy, breakthrough infection has been reported. We aim to describe the characteristics of post-vaccination hospitalized COVID-19 patients.
Methods: Retrospective analysis including fully vaccinated COVID-19 patients admitted to a single Portuguese tertiary centre (April-October, 2021). Patients admitted for other conditions (despite a positive RT-PCR SARS-CoV-2 test) and those whose symptoms started until the 14th day after the completion of the vaccine scheme were excluded.
Results: We identified 64 patients, 57.4% male gender with median age of 82 (IQR 68-88) years-old. The median Clinical Frailty Score on admission was 4 (IQR 3-7). Arterial hypertension was the most prevalent comorbidity (76.6%), followed by dyslipidemia (43.8%), cardiovascular disease (42.2%) diabetes mellitus and chronic kidney disease (31.3%). BNT162b2 vaccine was the most frequent (76.6%). The median time from last vaccine administration to hospital admission was 108.5 days and median hospital length of stay was 18.5 days. COVID-19 was the cause of admission in 81.3% of hospitalizations. On admission, 75% of patients (n=39) were hypoxemic, of those 15.4% (4/39) needed non-invasive ventilatory support of any kind and 42.2% FiO2 higher than 60%. 3 patients were still hospitalized when the analysis was done. 10 (15.6%) patients were admitted to the intensive care unit. Mortality rate was 32.8% (n=20), of which 75% died because of COVID-19.
Conclusions: Despite vaccination, patients still developed severe disease as more than 40% of patients needed considerable supplementary oxygen therapy and nearly one third of patients died. These results should be carefully interpreted since most patients were old and frail on admission.

1300 / #EV0280

LOWER ANTI-SARS-COV-2 ANTIBODY TITERS PREDICT IN-HOSPITAL MORTALITY IN VACCINE BREAKTHROUGH INFECTION

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Background and Aims: Despite COVID-19 vaccine's protection, breakthrough SARS-CoV-2 infection occurs. We aim to identify risk factors for mortality in vaccine breakthrough infected patients.
Methods: Retrospective cohort study including fully vaccinated COVID-19 patients admitted to a single Portuguese tertiary centre (April-October, 2021). Patients admitted for other medical conditions (despite a positive RT-PCR SARS-CoV-2 test) and those whose symptoms started until the 14th day after vaccine schedule completion were excluded. We used Cox regression models to analyse risk factors for mortality.
Results: We identified 64 patients. Three patients were still hospitalized when the analysis was done. Twenty patients (32.8%) died. Deceased patients were frailer on admission (Clinical Frailty Scale [CFS]: 6, IQR 7-4.5 vs. 4, IQR 6-3, p=0.001) compared to patients who lived. Age (p=0.132), gender (p=0.084), COVID-19 severity (WHO ordinal scale, p=0.751) and in-hospital treatments (steroids, p=0.171; remdesivir, p=0.209) were similar between groups. Anti-SARS-CoV-2-antibody titers <300 U/mL (30.2% of patients) were risk factor for in-hospital death (HR 2.96, 95%CI 1.16-7.56, p=0.023), even after individual adjustment for CFS (p=0.001), sex (male, p=0.034) and age (p=0.017). Anti-SARS-CoV-2 antibody titers' cutoff point of 500 U/mL (p=0.060), 1000 U/mL (p=0.090) and 2500 U/mL (p=0.168) did not predict mortality in our population. Comorbidities were similarly distributed between the groups, except for cerebrovascular disease that was more prevalent in deceased patients (p=0.035) and in those with anti-SARS-CoV-2-antibody titers <300 U/mL (p=0.037).
Conclusions: Our preliminary results show that lower anti-SARS-CoV-2 antibody titers are a risk factor for in-hospital mortality regardless of the patient gender, age and frailty on admission. Prognostic anti-SARS-CoV-2-antibody titers' cutoff value should be further elucidated.

 DOI: 10.12890/2022_V9Sup1

2267 / #EV0281

EVOLUTION OF PULMONARY AND RADIOLOGICAL INVOLVEMENT AFTER COVID-19 IN AN ELDERLY PATIENT POPULATION

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Background and Aims: To analyze the pulmonary sequelae of severe acute respiratory syndrome coronavirus 2 describing long-term radiological alterations in a population of elderly patients.

Methods: Prospective longitudinal study of patients aged ≥65 years with COVID-19 infection during March 1 to May 31, 2020, confirmed by PCR or seroconversion, admitted to the Hospital Regional Universitario de Málaga or those with outpatient management referred by primary care for persistent symptoms. Anteroposterior and posterolateral chest X-rays were performed at each visit, at 3, 6, 12 months. In those with alterations, computer tomography (CT) were performed. The data were analysed with SPSS v.22 program. Variables Quantitative data are expressed as mean±standard deviation.

Results: During the 1st wave we had 124 hospitalized patients aged ≥ 65 years. 43 died. For a year we have follow-up 90 patients (76 discharged + 14 from Primary Care). The mean age was 75.43. The distribution by sex was homogeneous. The average number of hospital days was 11 days. Evolution of changes in chest X-ray was: at admission: 90.8% infiltrates vs. 9.2% normal; at 3 months, 41.1% vs. 58.9%; at 6 months: 22% vs. 78%; and at 12 months, 10% vs. 90%. In patients with infiltrates at 3 months (37; 41.1%), a CT was done. 32 had alterations:19 had ground glass; 13, fibrotic pattern. These patients recieved prednisone and the CT was repeated 9 months after: 4 had similar alterations, rest improved.

Conclusions: Significant radiological improvement after 1 year of the acute condition. Although more studies are needed to establish definitive conclusions.

631 / #EV0282

THE PROGNOSTIC VALUE OF LOW SERUM THYROTROPIN LEVELS IN COVID-19 PATIENTS: STATISTICAL AND MACHINE LEARNING APPROACHES

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Background and Aims: Low serum thyrotropin (TSH) levels are often found in patients with COVID-19. We studied the prognostic value of low TSH in hospitalized COVID-19 patients and compared it with other laboratory indices of disease severity.

Methods: Admission levels of TSH, C-reactive protein (CRP) and D-dimers (DD) were recorded in 136 patients admitted consecutively to a COVID-19 hospital ward. The patients were classified dichotomously according to outcome (death-survival), and levels of TSH (cut-off 0.3 mIU/L), CRP (cut-off 75 mg/L) and DD (cut-off 500 ng/mL). Statistical analysis included multifactorial logistic regression and a neural network (Multilayer Perceptron, SPSSv.27) with DEATH as dependent variable and AGE, SEX, TSH, CRP and DD as covariates.

Results: Compared with those who survived, patients who died had lower TSH (median 0.47 v 0.70 mIU/L, p=0.023) and higher CRP (90.0 v 35.9 mg/L, p=0.003) and DD (830 v 630 ng/mL, p=0.059). Differences in mortality between groups are shown in the Table. Logistic regression showed that after correction for age and sex, significant (p<0.01) independent prognostic factors were low TSH (Odds Ratio=4.9, 95% C.I.=1.5-16.2) and high CRP (O.R.=5.3, 95% C.I.=1.7-16.2). Running the Multilayer Perceptron neural network resulted in 84.6% correct predictions in the testing sample, while the normalized importance percentages of the covariates AGE, TSH and CRP were 100%, 43.0% and 36.2% respectively.

Conclusions: Low serum TSH levels are associated with poor outcome in hospitalized COVID-19 patients.

		Mortality (%)	p
TSH (mIU/L)	<0.3	42.9	0.001
	0.3-4.5	13.0	
CRP (mg/L)	>75	31.1	0.004
	≤75	11.0	
DD (ng/mL)	>500	22.0	0.059
		8.9	

#EV0282 Table 1.

DOI: 10.12890/2022_V9Sup1

1318 / #EV0283

GUILLIAN-BARRÉ SYNDROME (GBS) POST-COVID IMMUNIZATION

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Case Description: GBS is an acute demyelinating neuropathy associated with fatal acute flaccid paralysis. Is usually preceded by respiratory or gastrointestinal infections. In some cases, it is triggered after the seasonal flu vaccine.

Clinical Hypothesis: We describe a case of a 44-year-old who presented to the ER with paresthesia and hypoesthesia in the extremities and progressive weakness of the lower limbs over 4 days. Associated with cough and dysphagia.

Diagnostic Pathways: He had taken the Astrazeneca vaccine about 15 days before. No history of recent infections. Motor examination revealed decreased extremity strength with 2/5 in the lower extremities versus 3/5 in the upper extremities. Deep tendon reflexes were absent in all four extremities. Investigation findings including lumbar puncture and nerve conduction studies were consistent with the diagnosis of GBS with bulbar involvement suggestive of poor functional prognosis. Immunoglobulins were started, which had to be interrupted due to anaphylactic response. He was admitted to the ICU due the development of respiratory failure. Initiated on invasive ventilation and multiple sessions of plasmapheresis without significant recovery.

Discussion and Learning Points: GBS is a rare entity, especially after vaccination, being a serious complication that may negatively influence the vaccination rate against the COVID-19 pandemic. Clinicians therefore should be aware of the neuro-logical complications or other side effects associated with COVID-19 vaccination so that early treatment can be an option. According to WHO, in July 2021, some GBS cases were reported after vaccination with Vaxzevria (AstraZeneca) and Johnson & Johnson vaccine (Janssen).

2220 / #EV0284

SARS-COV-2 INFECTION, POSSIBLE INDUCTOR OF DM? CALCULATION OF THE INCIDENCE OF POST-HOSPITALIZATION DM IN PATIENTS ADMITTED FOR SARS-COV-2

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Background and Aims: SARS-COV-2 infection causes severe acute respiratory syndrome and induces hyperglycemia. There are hypotheses that suggest the possibility that SARS-CoV-2 infection could specifically induce diabetes as there are receptors for angiotensin-converting enzyme 2 in the pancreatic beta cell. Our objective is to determine the incidence of diabetes mellitus after hospitalization for SARS-CoV2 infection in non-diabetic patients prior to admission.

Methods: Observational, retrospective and single-center study of 484 patients admitted for COVID-19 in the Internal Medicine service of the Reina Sofía University Hospital (Córdoba). 212 non-diabetic patients prior to admission, wich were discharged due to SARS-CoV-2 infection, were selected. These patients were followed up after hospital admission to calculate the incidence of diabetes. We did a cox regression to determine if hyperglicymia on admission was a predictor of diabetes.

Results: 8 patients developed post-hospitalization DM for COVID-19. There weren't significant differences between the characteristics of the patients. Regarding corticosteroids treatment, significant differences were found in treatment with systemic corticosteroids ($p<0.01$) or inhaled ($p=0.027$) prior to admission, without finding differences in those who received treatment with systemic corticosteroids during admission ($p= 0.16$) or at discharge ($p=0.38$). We found significant difference between patients who received more accumulated doses of corticosteroids (p 0.04). We calculated the incidence rate of DM obtaining a value of 58.96 cases per 1000-person-years.

Conclusions: Although our results suggest that there could be a relationship between SARS-CoV-2 infection and the development of DM, these could be due to corticosteroid treatment, and further studies are necessary to definitively determine whether SARS-CoV-2 could specifically produce DM.

 DOI: 10.12890/2022_V9Sup1

1801 / #EV0285

TOCILIZUMAB TREATMENT EFFECT ON IRON HOMEOSTASIS IN SEVERE COVID-19 PATIENTS

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Background and Aims: Anti-interleukin 6 receptor antibody (tocilizumab) has been proposed as an effective treatment for severe COVID-19. We aimed to investigate whether tocilizumab administration is associated with increased availability of serum iron which may possibly potentiate viral replication, reactive oxygen species generation and tissue damage.

Methods: We performed a single-center, observational, retrospective cohort study. We included adults, who were hospitalized in ICU with the diagnosis of severe COVID-19 infection eligible for tocilizumab treatment. Tocilizumab was administered in 2 separate doses of 400 mg, 12 hours apart. Laboratory data including serum iron, ferritin, transferrin saturation, hemoglobin and CRP levels of all patients were collected shortly before and 24h, 48h and 72h after tocilizumab administration.

Results: During the study period 52 adult patients were hospitalized in ICU with diagnosis of severe COVID-19. Fifteen patients fulfilled the inclusion criteria and were eligible to receive tocilizumab treatment. The baseline serum iron level and transferrin saturation levels were low (26±13 µg/dL and 15±8% respectively). Tocilizumab therapy was associated with a prominent increase in mean serum iron and transferrin saturation levels (26±13 µg/dL and 15 ±8% before treatment and 79±32 µg/dL and 41±15% 72h after treatment, respectively P<0.001) and decrease in serum ferritin levels (1921±2071 ng/mL before and 1258±1140 ng/mL 72h after treatment, P<0.027).

Conclusions: Treatment of severe COVID-19 patients with tocilizumab is associated with a profound increase in serum iron and ferritin saturation levels along with a decrease in ferritin levels. This may represent an undesirable side effect that may potentiate viral replication.

138 / #EV0286

EFFECT OF TOCILIZUMAB ON MORTALITY IN COVID-19 PNEUMONIA.

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Background and Aims: To analyze the effect of the IL-6 receptor blocker, Tocilizumab, on mortality in COVID-19 pneumonia.

Methods: Retrospective observational cohort study on the effect of tocilizumab (8 mg/kg iv) on mortality according to the WHO ordinal scale on day 28 from admission, in 1043 patients admitted to the "Príncipe de Asturias" University Hospital from March to September 2020, with SARS-CoV-2 pneumonia and SpO2 <94% at baseline. It has been approved by the hospital's CEIC. Analysis with binary logistic regression has been performed and adjusted with propensity index matching.

Results: Of the 1,043 patients, 62.2% are men, median age 68 (AIC 55 to 78) years, with comorbidities (54.0% hypertensive, 24.1% diabetic, 22.9% chronic lung disease and 23.0% oncohematological). Regarding concomitant treatments received, 6.8% were treated with remdesivir and 34.1% with corticosteroids, 6.6% requiring admission to the ICU. Of the total patients, 290 (27.8%) received treatment with tocilizumab and 753 patients (72.2%) did not. 22.1% (64 patients) of the patients treated with tocilizumab and 25.6% of the patients who did not receive it died (OR 0.82; 95% CI 0.60 to 1.13; p=0.232). The analysis adjusted for confounding variables did not observe an effect on mortality either (OR 0.77; 95% CI 0.52 to 1.13; p=0.180).

Conclusions: In this observational study, tocilizumab had no effect on mortality in SARS-CoV-2 pneumonia. Randomized and controlled studies are necessary to confirm this. In our patient cohort, the scarce use of concomitant corticosteroid therapy stands out (34.1%) despite being the first-line drug in this disease at present.

142 / #EV0287

REAL LIFE RESULTS OF THE USE OF REMDESIVIR IN PATIENTS WITH COVID-19 IN A SECOND LEVEL HOSPITAL IN MADRID

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Background and Aims: To analyze the epidemiological, clinical and analytical characteristics of patients treated with remdesivir since the approval of its use in Spain.

Methods: Retrospective, observational and descriptive study of all patients over 18 years of age, treated with remdesivir, from July 1, 2020 to May 1, 2021 at Hospital in Alcalá de Henares, Madrid.

DOI: 10.12890/2022_V9Sup1

Results: 976 patients were admitted, of which 156 were treated with Remdesivir. 105 were men (67.3%) with a median age of 59 years (47-73), The median days from the onset of symptoms to the start of remdesivir treatment was 6 days (4-8). Regarding the previous pathology of the patients, 28 were obese with a BMI > 30 Kg / m2 (19%); 33 had pulmonary disease (21%); 28 had type two diabetes mellitus (18%), 13 had active neoplasia (8%) and 4 had disease chronic kidney disease. From an analytical point of view, the mean creatinine value on the first day of use of this drug was 0.81 mg/dl (0.7- 0.94) and all patients had creatinine values below 1.5 mg/dl after use. 3 patients had drug discontinuation due to an increase in aminotransferases 5 times higher than the laboratory limit. Regarding concomitant treatments received, 150 patients received treatment with intravenous corticosteroid therapy and in 19% of the patients tocilizumab therapy was associated.
Conclusions: In our cohort of patients, there were no statistically significant differences in liver or kidney function values before and after the administration of this drug. Our cohort supports the good tolerability profile of remdesivir.

1529 / #EV0288

PATIENT CHARACTERISTICS, ICU REFERRAL, HOSPITALISATION DURATION AND MORTALITY DURING THE COVID-19 PANDEMIC IN A TERTIARY HOSPITAL IN SWITZERLAND

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Background and Aims: Since COVID-19 was first described, medical care for these patients has developed rapidly. In addition, new mutations have led to different disease courses. The aim of this study is to describe patient characteristics, length of hospital stay, ICU referral and mortality associated with the four pandemic waves from early March 2020 to October 2021 in a Swiss tertiary hospital.
Methods: Analysis of all 985 patients hospitalised in our COVID-19 unit admitted from 3/2020 and discharged by 10/2021. The analysed parameters are listed in the Table. Pearson chi-squared test and Kruskal-Wallis were used when appropriated.
Results: Table 1.
Conclusions: Compared to published data, mortality was lower than in comparable hospitals. Age and numbers of relevant comorbidities decreased significantly over time. As a possible result, mortality decreased over time. Interestingly, length of hospitalisation and ICU referral were not different in the four waves. In the logistic regression analysis age, numbers of relevant comorbidities and ICU admission were risk factor for mortality.

Factors	All
N	985
Age (years)	62.5±16.8
Male/Female	563/422 (57.2%/42.8%)
Numbers of relevant comorbidities	2.3±1.7
ICU-referral	108 (11.0%)
Hospitalisation days	9.4±9.8
Mortality	65 (6.6%)

Factors	Wave 1 (3/20 to 9/20)	Wave 2 (10/20 to 2/21)	Wave 4 (8/21 to 10/21)
N	113 (11.5%)	524 (53.2%)	127 (12.9%)
Age (years)	62.5±16.5	67.0±15.4	54.0±17.9
Male/Female	69/44 (61.1%/38.9%)	301/223 (57.4%/42.6%)	72/55 (56.7%/43.9%)
Numbers of relevant comorbidities	2.3±1.8	2.6±1.8	2.0±1.4
ICU-referral	13 (11.5%)	55 (10.5%)	19 (15.0%)
Hospitalisation days	9.7±9.5	9.5±10.6	8.6±8.3
Mortality	10 (8.8%)	42 (8.0%)	4 (3.1%)

#EV0288 Table 1.

1662 / #EV0290

CORONAVIRUS (COVID-19) VACCINE-INDUCED THROMBOTIC THROMBOCYTOPENIA (VITT): A CASE REPORT

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Case Description: A 31-year-old man was admitted to the hospital because of multiple skin haematomas and severe thrombocytopenia of 25 x 109/L. Two weeks before admission, the patient was vaccinated with the first dose of ChAdOx1 nCov-19 vaccine. On physical examination, the patient was afebrile, eupneic, blood pressure was 155/95 mmHg, heart rate was 96/min and oxygen saturation value was 96% with the borderline McGinn-White sign on electrocardiogram.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: Adenoviral vector vaccine is considered to be the cause of severe thrombocytopenia with haemorrhagia.
Diagnostic Pathways: Laboratory investigations revealed elevated serum D-dimer (3,198 mg/L) and anti-platelet factor 4 IgG (38.67 U/mL) concentration, CT pulmoangiography showed pulmonary embolism. Based on these results we assumed the diagnosis was a vaccine-induced immune thrombotic thrombocytopenia (VITT) and we initiated treatment with subcutaneus fondaparinux and intravenous immunoglobulin. Clinical condition and laboratory parameters rapidly improved, on the 9th day of hospitalisation patient was discharged from the hospital.
Discussion and Learning Points: VITT is a serious complication of ChAdOx1 nCoV-19 vaccine and it mimicks autoimmune heparin-induced thrombocytopenia. VITT manifests most often with unusual thromboses, but sometimes also with deep vein thrombosis of legs or pulmonary embolism. Severe thrombocytopenia becomes clinically evident usually within 5-30 days after vaccine administration. There are no sex preponderance and known risk factors. Overall mortality was 22%. Treatment should be started immediately with high dose intravenous immunoglobulin and nonheparin anticoagulants. Glucocorticoids and plasma exchange are also therapeutic options to reduce anti-PF4 antibodies levels. Platelet transfusion can be considered only in severe bleeding complications.

1766 / #EV0291

A PRAGMATIC ALGORITHM TO TRIAGING INTENSIVE CARE UNIT ADMISSIONS FOR PATIENTS WITH SEVERE COVID-19

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Background and Aims: The aim of this study was to apply machine learning models to predict the risk of in-hospital death in patients with severe COVID-19 based on their clinical characteristics at admission.
Methods: All consecutive adult patients who referred to and admitted with COVID-19 at healthcare facilities in Fars province, Iran from 19 February 2020 until 20 May 2021 were included. Data was split to train and test parts (80/20). For feature selection, we used a naïve logistic regression model with class weight 'balanced' plus a univariate analysis (mutual information). To make the algorithms robust to noise data, a denoising auto encoder was trained on the data. Several models including random forest classifier, support vector classifier, K-nearest neighbors, logistic regression, LightGBM, and TabNet classifier were developed. To select the appropriate model for the purpose of this study, we employed Scikit-learn 'cross validate'(10 fold cross validation) function and calculated the balanced accuracy, precision, and recall scores on test dataset.
Results: The database included 27,522 patients; 9.69 % died in hospital and 90.31 % were discharged alive. For the purpose of this study, the recall score was considered to be the most important parameter (making sure that in-hospital mortality is predicted with the highest sensitivity). Considering all the parameters, TabNet showed the best performance (cross validation recall score : 81.07% with 95% CI : 77.57% - 81.57% ,AUC with 95% CI:79.94%-80.35%); it was fitted on the data to develop the application.
Conclusions: We developed a COVID triage app that is freely available at: https://drive.google.com/file/d/15qSinMwGKvQhbh4o4L7kCk4B-GoImm1m/view?usp=sharing.

1672 / #EV0292

COMORBITY AND PROGNOSTIC FACTORS OF PATIENTS HOSPITALIZED FOR COVID-19

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Background and Aims: Describe clinical features, comorbidity, and prognostic factors associated in hospitalized patients for COVID-19.
Methods: Prospective cohort; hospitalized patients with a microbiological diagnosis of COVD19 admitted to Antequera Hospital from March-2020 to October-2021 have been included. Multivariate analysis was performed to identify factors associated with mortality.
Results: A total of 560 patients were included, 57.5% were male. Mean age: 66,1 years . Nursing home: 7,5%. Barthel Index <60: 17.7%. Most frequent comorbidities were: hypertension (56.3%), hypercholesterolemia (40.5%), diabetes mellitus (28.8%), obesity (20%), chronic kidney disease (10.5%), ischemic heart disease (11.1%), previous stroke (8.8%), chronic respiratory disease (19.6%), cancer (4,2%). Mean days of symptoms before hospitalization was 6,4 days. Most frequent symptoms were: fever (72.4%), dyspnea (70.4%), cough (61.6%), fatigue (43.4%). Bilateral pulmonary infiltrates (77.9%) with interstitial pattern (87,5%) and without pleural effusion (97.5%) were the most common findings on chest radiography. Admitted to the intensive care unit: 77 (13.8%) patients. Mortality was 98 (17.5%) patients. Severity and prognostic scores were performed: CURB-65 >2 (1.8%) and qSOFA >1 (2,7%); specificity and negative predictive value of both scores were high:

 DOI: 10.12890/2022_V9Sup1

respectively, 99,7% (95%CI: 98,6-99.9) and 83.4% (95%CI: 80.4-86.7); 99,3% (95%CI: 97.9-99.8) and 84.2% (95%CI: 80.2-87.1). Multivariate analysis showed that age over 65 years (RR: 6.2; 95CI 2.8-13.7), dependence with Barthel index >60 (RR: 3.2; 95%CI:1.3-7.4) and institutionalized in nursing home (RR: 2.7; 95%CI:1.3-5.3) are independently associated with mortality.
Conclusions: Patients hospitalized for COVID-19 have a high comorbidity. Classic prognostic scores show high discriminatory capacity. Mortality is associated with the elderly, functional dependence and residing in nursing home.

2559 / #EV0293

MULTISYSTEM INFLAMMATORY SYNDROME IN AN ELDERLY ADULT FOLLOWING THE FIRST DOSE OF BNT162B2 M-RNA COVID-19 VACCINATION (MIS-V)

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Case Description: Multisystem inflammatory syndrome (MIS) is a post-inflammatory syndrome that mainly affects children (MIS-C) and, less often, adults (MIS-A); it typically occurs 3-6 weeks after SARS-CoV-2 infection. It has been assumed that MIS can occur after SARS-CoV-2 vaccination (MIS-V). In our case, multisystem inflammatory syndrome developed after COVID-19 vaccination, and it has the distinction of being the first case seen with retroperitoneal hematoma and hemothorax.
Clinical Hypothesis: Our patient had a fever, elevated inflammatory markers and illness requiring in-hospital admission with multisystem organ involvement (cardiac, renal, dermatological). With suspicion of MIS-V, the patient was further evaluated.
Diagnostic Pathways: COVID-19 infection was examined due to the presence of fever. The COVID-19 PCR test was negative and there was no evidence of pneumonia on his CT scan. On his lab findings, white blood cell 11,580 (neutrophil 84.9%), Cr 2.84 mg/dL, alanine aminotransferase 261 IU/L, lactate dehydrogenase 228 U/L, ferritin 440 ng/mL, C-reactive protein (CRP) 321 mg/L, B-type natriuretic peptide (BNP) 9100 pg/mL and procalcitonin was negative. Echocardiography was performed to differentiate heart failure due to BNP elevation. As a result of patient's normal ferritin, macrophage activation syndrome was also ruled out. During hospitalization, retroperitoneal hematoma and hemothorax were detected.
Discussion and Learning Points: The patient started intravenous steroid therapy, his clinical condition improved. MIS-V is a rare condition, the exact incidence, prevalence and pathophysiology of MIS-V has not been clearly explained to date. It should be noted that multisystem inflammatory syndrome can develop after the SARS-CoV-2 vaccine, and corticosteroid therapy is beneficial for the rapid improvement of clinical manifestations and laboratory values.

1619 / #EV0294

COVID-19 DISEASE AND T2DM IN HOSPITALIZED PATIENTS: STATISTICAL ANALYSIS ON ENDPOINTS AND CLINICAL OUTCOMES

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Background and Aims: Diabetes mellitus is a risk factor for COVID-19 infection, with varying disease severity. The aim of this research was to uncover the possible differences in the clinical progression and endpoints between diabetic and non-diabetic hospitalized patients.
Methods: We included 509 patients hospitalized in the Infections Diseases Unit of University Hospital of Ioannina from 03-2020 to 05-2021. The analysis included laboratory inflammation markers and CT burden of disease (as a percentage of the lung parenchyma). The comparison of the characteristics was conducted with an independent-samples t-test.
Results: Medical history of DM reported 101 patients (19.8%) with a mean age of 69.48 years (SD 14.00), while 56.4% were men. Concerning the antidiabetic medication before admission: 61.5% received metformin, 29.3% DPP-4i, 20% SGLT-2i, 7.7% sulfonylureas and 3.1% pioglitazone. Basal insulin was administered to 24.4%, short acting insulin to 20% and GLP-1RA to 18.5%. The difference in PF ratio between the two teams (diabetic vs non-diabetic) was statistically significant (202.44 vs 229.47, p-value=0.021). No other statistically significant difference was found. The difference in the onset of severe respiratory failure (PO2/FiO2 <150) was 33.3% vs 28.3% between groups, (p-value=0.323) while the difference in the incidence of death was 17.3% vs 11.1% (diabetics vs non-diabetics). CT burden of disease was the same for the two groups.
Conclusions: The absence of statistically significant difference for most of the analyzed factors renders the extraction of safe conclusions quite difficult, but there seems to be a negative effect of DM on the clinical progression of COVID-19 patients.

 DOI: 10.12890/2022_V9Sup1

1622 / #EV0295

ASSOCIATION BETWEEN THROMBOTIC EVENTS AND DISEASE SEVERITY AND OUTCOME IN COVID-19 PATIENTS.

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Background and Aims: Thrombotic events are a common occurrence in COVID-19 patients. The purpose of the current study was to determine the difference of outcome between COVID-19 patients with pulmonary embolism or vascular tree-in-bud and patients without thrombotic episodes.

Methods: 509 patients hospitalized in University Hospital of Ioannina were examined in order to diagnose PE or vascular tree-in-bud, with CT or CTPA.

Results: 98 patients (19.3%) had PE or vascular tree-in-bud. The group with a thrombotic episode had longer duration of symptoms (6.5 vs 7.7 days, p=0.042) and an increased burden of disease in CT (50.3% vs 60.6%, p=0.001). The same group reported shortness of breath on admission (31.6% vs 21.2%, p=0.057) and had a higher incidence of intubation (9.5% vs 2.9%, p=0.037). In the thrombotic group, 24 patients were diagnosed with PE and 78 with vascular tree-in-bud (4 patients had both). Patients with PE were hospitalized 7.1 days more (p<0.001), while they were 7.7 years older (p=0.032). The PE group had by 71.5 mg/L higher maximum CRP value (p=0.001), by 1.04 ng/ml highest value of maximum procalcitonin (p=0.004) and higher White Blood Cells levels by 2157 (p=0.028), compared to the vascular tree-in-bud group. The minimum P/F ratio was by 74.8 lower in patients with PE, who had a 6.55 times greater chance of severe respiratory failure with P/F ratio <150 (p<0.001) and 7.17 times greater risk of death (p=0.004).

Conclusions: COVID-19 patients with thrombotic complications have a more extensive pulmonary disease, as well as an increased likelihood of intubation in comparison with other COVID-19 patients.

1625 / #EV0296

DURATION OF HOSPITALIZATION IS RELATED WITH THE PRESENCE OF METABOLIC ACIDOSIS IN COVID-19 PATIENTS. DATA FROM THE INFECTIOUS COVID-19 UNIT, IOANNINA UNIVESRITY HOSPITAL

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Background and Aims: COVID-19 can cause acid-base disturbances due to its attack on the respiratory system. The purpose of this research is to correlate the most common disturbances with severity markers.

Methods: Data from 334 patients who had been treated in the Infectious Disease Units of UHI during the period 2/2020-12/2020 has been analysed. The data analysis took place using non-parametric Mann-Whitney U test and Fisher's Exact test, in the platform R v 4.0.5.

Results: 57 patients of our sample (n=242) have presented with metabolic acidosis, as a lone disorder or as a part of a mixed disorder, in particular (in the following the primary acid-base disorder is recorded first when a mixed disorder is mentioned): Metabolic acidosis: 9 (2,6%), metabolic acidosis and respiratory acidocis: 2 (0,8%), metabolic acidosis and respiratory alkalosis: 15 (6.1%), metabolic acidosis and respiratory alkalosis and metabolic acidosis with increased anion gap: 1 (0.4%), respiratory acidosis and metabolic acidosis: 2 (0.8%), respiratory alkalosis and metabolic acidosis: 27 (11.1%), respiratory alkalosis and metabolic acidosis and metabolic alkalosis: 1 (0.4%). From the data analyzed, statistical significance was observed when comparing patients with respiratory alkalosis and metabolic acidosis: 27 patients (11.1%), versus patients with just respiratory alkalosis [48 patients, (19.8%)] as far as the duration of treatment is concerned (13 vs 11 days, p-value=0.04).

Conclusions: From this particular sample of patients, it seems that the presence of metabolic acidosis in combination with metabolic alkalosis leads to increases in the duration of treatment.

 DOI: 10.12890/2022_V9Sup1

1626 / #EV0297

ELEVATED CALCIUM LEVELS ON ADMISSION AND DURING HOSPITALIZATION, IN COVID-19 PATIENTS. POSSIBLE EFFECT ON DISEASE PROGNOSIS

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Background and Aims: Hypercalcemia is likely to be associated with a worse clinical outcome. The purpose of this study was to find the possible correlations of hypercalcemia with disease severity markers in COVID-19 patients.

Methods: Data of 334 COVID-19 positive patients, hospitalized in University Hospital of Ioannina during the period 02/2020-12/2020, were analyzed. As hypercalcemia were defined blood Calcium levels >10.5 mg/dL. The analysis was conducted with a non-parametric Mann-Whitney U test and Fisher's Exact test, on the R v 4.0.5 platform.

Results: The average mean age of patients was 65.51 years, 186 (55.6%) were male. Hypercalcemia, at the time of admission, was recorded in 2 patients (0.5%), during hospitalization in 3 (0.89%). Patients with hypercalcemia at the admission had a higher maximum value (on average) of Horowitz index (partial oxygen pressure/fraction of inspired oxygen) (448.5 vs 214.0, p-value = 0.027), compared to the non-hypercalcemic patients. In the group of patients who developed hypercalcemia during hospitalization, while compared to the group of other patients was also observed a higher maximum mean value of troponin (121.90 vs 9.75 pg/ml, p-value=0.044).

Conclusions: Hypercalcemia appears as a potential complication of COVID-19, with a low frequency in the current sample. These data require further testing in a larger sample of patients to draw safer conclusions. Taking into consideration the abovementioned results, calcium levels could also be used in predictive models for the outcomes of COVID-19 patients.

128 / #EV0298

DERMATOLOGIC MANIFESTATION OF COVID-19

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Background and Aims: Coronavirus disease-19 (COVID-19) is an ongoing global pandemic caused by the "severe acute respiratory syndrome coronavirus 2" (SARS-CoV-2), which was isolated for the first time in Wuhan (China) in December 2019. Common symptoms include fever, cough, fatigue, dyspnea and hypogeusia/hyposmia. While much of the focus has been on the cardiac and pulmonary complications, there are several important dermatologic components that clinicians must be aware of. However, overall similarities in the clinical presentation of these dermatological manifestations have not yet been summarized.

Methods: This review summarizes the current knowledge on COVID-19-associated cutaneous manifestations, focusing on clinical features and therapeutic management of each category and attempting to give an overview of the hypothesized pathophysiological mechanisms of these conditions.

Results: Dermatologic manifestations of COVID-19 are increasingly recognized within the literature. The primary etiologies include vasculitis versus direct viral involvement. There are several types of skin findings described in association with COVID-19. The main clinical patterns are maculopapular rashes, urticaria, vesicles, petechiae, purpura, chilblains, livedo racemosa, and distal limb ischemia. Most of these dermatologic findings are self-resolving but they may help one's suspicion for COVID-19.

Conclusions: It is important to be aware of the dermatologic manifestations and complications of COVID-19. Many morphologies were nonspecific, whereas others may provide insight into potential immune or inflammatory pathways in COVID-19 pathophysiology. Knowledge of the components is important to help identify potential COVID-19 patients and properly treat complications

2430 / #EV0299

COVID-19 DISEASE COURSE RISK FACTORS AMONG ADULTS HOSPITALIZED IN THE UNIVERSITY HOSPITAL, LITHUANIA

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Background and Aims: While healthcare systems are periodically overburdened due to COVID-19 pandemic, it remains essential to identify patients most at-risk for severe COVID-19 to provide them appropriate healthcare. The aim of this study was to determine the main risk factors associated with severe disease and death due to COVID-19.

Methods: COVID-19 positive patients of ≥18 years old hospitalized in Vilnius University Hospital Santaros Klinikos, Lithuania, were included in the cohort study between March 2020 and December 2021. Study outcomes were severe COVID-19, defined as pneumonia with objective respiratory failure symptoms

 DOI: 10.12890/2022_V9Sup1

(SpO2<94%), and death. p-value <0.05 indicated significance. Significant risk factors in univariate regressions were included in backward stepwise multivariate regression.
Results: Among 495 participants, 47.1% were women, 26.5% were ≥65 years old, 27.7% were obese, 61.2% had comorbidities. Severe COVID-19 was diagnosed for 291 (58.8%) participants; 21 (4.2%) participants died. Multivariate regression indicated that obesity (OR 3.34; 95%CI 1.61-6.79, p=0.001) was associated with severe COVID-19. Being ≥65 years old (OR 5.01; 95%CI 1.80-14.37, p=0.002), having lung diseases other than asthma and chronic obstructive pulmonary disease (COPD) (OR 7.68; 95%CI 1.60-36.86, p=0.011), haematological (OR 4.22; 95%CI 1.42-12.55, p=0.010) and other oncological diseases (OR 3.39; 95%CI 1.07-10.72, p=0.038) increased the odds of dying from COVID-19.
Conclusions: The risk factor for severe COVID-19 was obesity, while for COVID-19 related deaths it was older age, haematological, oncological and lung diseases other than asthma and COPD. Defining key risk factors for poor COVID-19 outcomes is essential to identify most at-risk subpopulations to provide them appropriate preventive, pre- and post-exposure healthcare.

103 / #EV0300

CLINICAL FEATURES AND OUTCOMES OF COVID-19 IN PATIENTS WITH IGG4-RELATED DISEASE. A COLLABORATIVE EUROPEAN MULTI-CENTRE STUDY

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Background and Aims: The prevalence of COVID-19 and of its complications in patients with immunemediated disorders remains unclear. The frequency and impact of COVID-19 on patients with IgG4- related diease (IgG4-RD), many of whom are on concurrent immunosuppression has not been addressed. To assess the epidemiological and clinical relevance of COVID-19 in patients with IgG4-RD.
Methods: This is a multi-centre retrospective observational study of IgG4-RD patients from France, Italy, Spain and the UK. Demographics, IgG4-RD features, current and past treatment along with COVID-19-symptoms and COVID-19 diagnoses from February 2020 to January 2021 were recorded by means of direct/phone interviews. Patients with reverse-transcriptase polymerase chain reaction-confirmed (cCOVID) or presumed COVID-19 based on clinical, serological or imaging features (pCOVID) were pooled for analysis (totCOVID) and compared to patients who were not diagnosed with COVID-19.
Results: A total of 305 patients were studied. 51% of patients were taking corticosteroids at time of interview and 30% were on immunosuppressants. Thirty-two totCOVID cases (23 cCOVID, 9pCOVID) were identified: 11/32 were hospitalised, 2needed intensive care and four died. Having one or more infected family members was a risk factor for COVID-19 in patients with IgG4-RD (OR=19.9; p<0.001). There was no association between adverse outcomes with COVID-19 and higher doses of steroids (>20mg) or rituximab administration.
Conclusions: The prevalence and course of COVID-19 in IgG4-RD patients are similar to those of the general population of the same age, with no evident impact of disease- or treatment-related factors to the basal infectious risk. Effective public health countermeasures might be beneficial for patients with IgG4RD.

2535 / #EV0301

ANTIBIOTIC USE IN PATIENTS WITH CORONAVIRUS DISEASE-19 PNEUMONIA IN A PORTUGUESE INTERNAL MEDICINE WARD

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Background and Aims: Although literature diverge with some studies reporting a prevalence of confirmed bacterial co-infection as low as 8% and bacterial super-infection as high as 20%, a large proportion of patients received antimicrobials (75%) in the early days of COVID-19 pandemic. Despite of bacterial co-infections have been associated with poor outcomes there is an increasing concern about antibiotic misuse due to antimicrobials resistance. Our aim is to characterize antibiotic use in an Internal Medicine ward in patients with coronavirus-19 pneumonia.
Methods: Retrospective observational study of hospital admitted patients in the period between 1st January to 28th February 2022, diagnosed with SARS-CoV-2 pneumonia to whom antibiotic therapy was used due to suspected bacterial co-infection/super-infection. Data was recorded and analyzed in Microsoft Excel.
Results: We treated 31 patients (51.61% male and 48.39% female with a mean age of 76.9 years, 83,87% had at least one dose of the SARS-CoV-2 vaccine). Antibiotic was given to 70.97% (22/31) of patients, 41.93% (13/31) at admission and of those 38.46% (5/13) suspended in the first 48h. None of those who stopped had antibiotic re-introduction.
Conclusions: Despite a small sample size, this study shows that an antibiotic program targeting prescription at emergency department could be an effective away to improve antibiotic misuse. More efforts should be done for a microbial prescription based on chest imaging, laboratory inflammatory markers and microbiological studies.

 DOI: 10.12890/2022_V9Sup1

1327 / #EV0302

IL-1 RECEPTOR AS A THERAPEUTIC TARGET IN COVID-19

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Background and Aims: Multiple treatments have been tested against COVID-19, with immunomodulators so far being the most successful in modifying the course of the disease. Aim: To assess the survival of patients with COVID-19 who receive treatment with Anakinra.

Methods: Observational cross-sectional study (September 2020 to April 2021) of all patients admitted to the Internal Medicine department at Valme Hospital (Seville/Spain) with a diagnosis of COVID-19 who received treatment with anakinra. Survival data analysis was performed using Cox regression.

Results: 209 subjects were included, 60% male and 40% female, with a mean age of 68.5 years. The median hospital stay was 10 days, with a complication rate of 35.4%, including mainly bacterial pneumonia (9.1%) and delirium (4.8%). All patients were treated with anakinra, with a mortality rate of 11% in the subgroup receiving more than 6 days of treatment compared to 61% in the subgroup receiving 5 days or less (p<0.001). The reason for receiving fewer days of treatment in most cases was death. Factors related to increased mortality: requiring oxygen therapy with a reservoir mask (p=0.015), suffering complications during admission (p=0.006) and receiving 5 days or less of treatment with anakinra (p<0.001).

Conclusions: Patients who received treatment for more days with Anakinra had higher survival rates, probably associated with the early initiation of the drug, taking advantage of the opportunity window still unknown in this disease. The occurrence of respiratory failure with high oxygen requirements was the factor that most marked the prognosis of patients admitted.

1213 / #EV0303

ANAKINRA IN NON-INTUBATED HOSPITALIZED PATIENTS WITH COVID-19: A SYSTEMATIC REVIEW AND META-ANALYSIS

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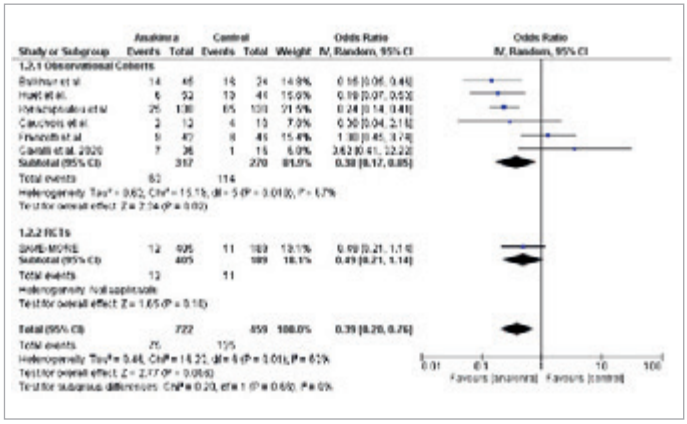
Background and Aims: Acute respiratory distress syndrome and cytokine release syndrome are the major complications of coronavirus disease 2019 (COVID-19) associated with increased mortality. We aimed to evaluate the efficacy and safety of anakinra in adult non-intubated patients with COVID-19.

Methods: We have included clinical trials evaluating the effect of anakinra on the need for invasive mechanical ventilation and mortality in hospitalized non-intubated patients with COVID-19.

Results: Nine observational studies (n=1.119) and a double-blind randomized, placebo-controlled clinical trial (n=594) were included in the present meta-analysis. The risk of bias in relation to the parameters evaluated was high for the observational studies. Overall, anakinra reduced the need for invasive mechanical ventilation (OR: 0.39, 95% CI: 0.20-0.76, p=0.006, I2=63%, Figure 1A) and mortality risk (OR: 0.34, 95% CI: 0.25-0.47, p <0.001, I2=0%, Figure 1B) compared to standard-of-care therapy. There were no differences in the risk of side effects, including bacteremia (OR: 1.03, 95% CI: 0.48- 2.22, p >0.05, I2=66%, Figure 1C) and hepatic impairment (OR: 0.95, 95% CI: 0.72-1.25, p> 0.05, I2=33%, Figure 1D). Figure 1.

Conclusions: The available data shows that treatment with anakinra reduces both the need for invasive mechanical ventilation and mortality risk in hospitalized non-intubated patients with COVID-19 without increasing the risk of adverse reactions.



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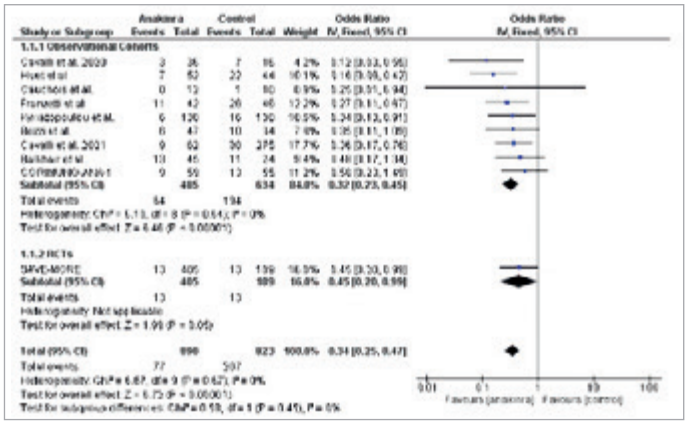
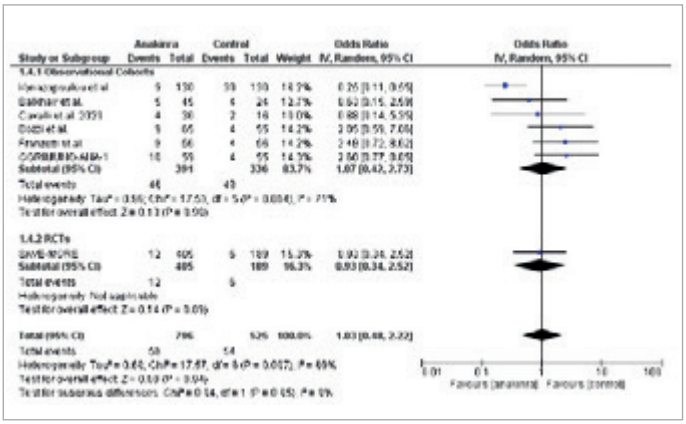


#EV0303 Figure 1B.

DOI: 10.12890/2022_V9Sup1



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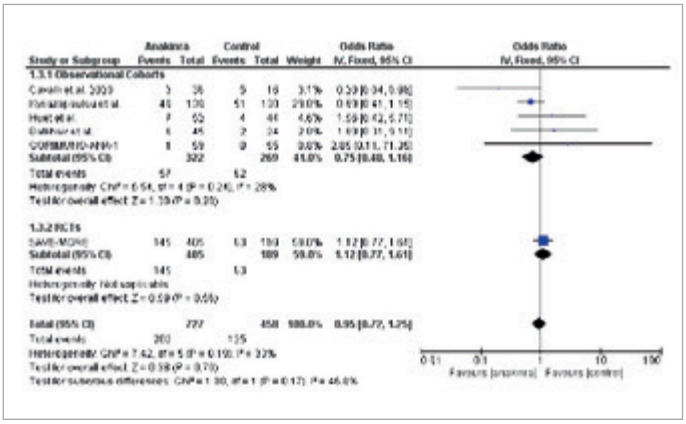

#EV0303 Figure 1D.

1628 / #EV0304

COVID-19 AND SENSORY DISORDERS. EFFECT OF THE VIRUS IN OLFACTORY AND TASTE FUNCTION IN ADULTS. DATA FROM A PROSPECTIVE STUDY IN EPIRUS GREECE

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Background and Aims: The purpose of this research is to study the effect of SARS-CoV-2 infection on the olfactory and taste function.
Methods: The study included 300 adult patients, who tested positive for SARS-CoV-2, following molecular testing (reverse transcriptase-Polymerase Chase Reaction). Of the total sample, 150 patients recovered at home and 150 were hospitalized in the Infectious Disease Units of the University General Hospital of Ioannina.
Results: The mean age in the total patient population was 46.02 years. The mean age in the group of hospitalized patients was 57.35 years, while it was 34.69 years for those who recovered at home. Women in the total sample accounted for 35.33% (40% hospitalized and 30.67% home recovery), while men accounted for 64.67% (60% and 69.33% hospitalization and home, respectively). There were 101 patients who recovered at home and had a loss of smell (67.3%) and 85 patients (56.7%) that reported loss of taste. 70 patients were hospitalized and had a loss of smell (46.67%) and 70 patients (46.67%) reported loss of taste. In regards with the sample population, loss of smell occurred in 171 patients (57%) and loss of taste in 155 patients (51.6%).
Conclusions: The data analyzed above, confirm the high frequency of loss of smell and taste in COVID-19 patients. It was observed that the rate of patients who reported these symptoms was higher at the subgroup of non-hospitalized rather than at the subgroup of those who were admitted to the hospital.

1629 / #EV0305

COVID-19 AND OLFACTORY DYSFUNCTION. CORRELATION WITH AGE PROGRESSION. A POPULATION BASED STUDY

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Background and Aims: The purpose of this research is to uncover the effect of SARS-CoV-2 infection on the severity of olfactory loss in patients as well as to interpret data from the correlation with age.
Methods: The study included 300 adult patients, tested positive for SARS-CoV-2, following molecular testing (RT-PCR). 150 were home quarantined and 150 were hospitalized in the Infectious Diseases Units of the University General Hospital of Ioannina. The statistical analysis was based on the program IBM-SPSS Statistics 26.0.
Results: Regarding sex: 35.33% was female and 64.67% of the total population were male. Underweight (BMI< 18.5) was the 2.67% of the total population, overweight (BMI=25-29.9) were 39.33% and obese (BMI>30) the 21% of the total population . Analysis of the data for each age group showed that patients aged 21-25 years with loss of smell (14% of the total population) differed significantly (p=0.013) from patients aged 21-25 years (5.33%), without loss of smell. Patients aged 61-65 years with loss of smell (2.6%) also differed significantly (p=0.049) compared to patients

 DOI: 10.12890/2022_V9Sup1

of the same age without loss of smell (5.0%) as did patients aged 71-75 years (1.33%) with loss of smell, who differed significantly (p=0.027) with patients of the same age, without loss of smell (3.33%).
Conclusions: From the present sample it appears that the youngest age, and specifically the age between 21-25 years, was associated with an increased probability of smell loss, while the opposite was observed in the age groups between 61-65 and 71-75 years.

1630 / #EV0306

PROSPECTIVE DATA ANALYSIS: THE POSSIBLE EFFECT OF BODY WEIGHT AND PROGRESSION OF AGE IN THE OLFACTORY AND TASTE DYSFUNCTION IN COVID-19 PATIENTS

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Background and Aims: The aim of this study was to identify the effect of SARS-COV2 infection on patients' olfactory and taste function regarding age and obesity.
Methods: 300 patients were randomized in two groups: 150 patients recovered at home and 150 were hospitalized in the Infectious Diseases Unit of the University General Hospital of Ioannina.
Results: Mean age in the total population was 46.02 years (hospitalized: 57.35 years, home: 34.69 years). The mean body mass index (BMI) was: 26.54, 28.2 and 24.87 kg/m^2, respectively in the above-mentioned groups. Statistically significant relationship was observed between age and loss of smell and loss of taste ($p<0.05$ and $p=0.013$, respectively) and particularly in the age group of 21-25, 61-65 and 71-75 years ($p=0.013$, 0.043 and 0.049, respectively) for the incidence of loss of smell. While for the loss of taste statistical significance was recorded in the age group of 31-35 and 71-75 years ($p=0.03$, $p=0.013$, respectively). Statistically significant relationship was observed, for BMI and risk of hospitalization in the subgroups of overweight (25-29.9) and obese (>30) patients ($p=0.025$ and <0.05, respectively), with a positive correlation ($\rho = 0.054$) but not statistically significant (p value=0.288). A positive correlation was observed respectively for age, ($p=0.054$) but also not statistically significant (p value=0.512).
Conclusions: Results showed a possible association of age and loss of smell and taste. BMI appears to be related with the risk of hospitalization, but these results need further evaluation in a larger sample of patients.

119 / #EV0307

UTILITY OF THE ADAPTED RALE SCALE IN COVID-19

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Background and Aims: Our objective was to analyze whether the adapted RALE scale is an optimal tool for predicting the severity of SARS-CoV-2 pneumonia.
Methods: Retrospective, observational and analytical cohort study of patients admitted with SARS-CoV-2 pneumonia in our hospital during January 2021. Calculation of the RALE scale upon admission by chest X-ray, all viewed and scored by the same observer trained. Collection of the outcome of the admissions (discharge versus death). Categorization of the RALE scale adapted according to severity (0 points: normal; 1-2: mild; 3-6: moderate; greater than 6: severe). Bivariate analysis using Chi square test and hypothesis testing.
Results: A total of 86 patients were analyzed. Regarding severity, 13 were classified as "mild" severity, 50 as "moderate" and 23 as "severe". Of the mild group, there were no deaths. 18% of the patients with ""moderate"" severity died, while in the group with the highest severity this percentage rose to 65%. The difference in mortality is statistically significant between the three groups.
Conclusions: The assessment of SARS-CoV-2 pneumonia through chest radiography using the adapted RALE scale is a valid tool to establish the severity of the infection, and is related to with their mortality.

1797 / #EV0308

CONCURRENT PERSISTENT COVID-19 AND INVASIVE PNEUMOCOCCAL DISEASE IN A 29-YEAR-OLD SEVERELY IMMUNOCOMPROMISED PATIENT WITH NEWLY DIAGNOSED HIV INFECTION.

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Case Description: We present a 29-year-old male diagnosed in July 2021 with mild SARS-CoV-2, who is admitted in September with SARS-CoV-2 and pneumococcal pneumonia, acute respiratory failure and concomitant diagnosis of HIV infection in the emergency department.
Clinical Hypothesis: Remdesivir has demonstrated clinical benefit in early disease in hospitalized patients with non-severe infection. In our country, its use is only authorized during the first seven days

 DOI: 10.12890/2022_V9Sup1

after symptom onset. However, there are no studies examining whether SARS-CoV-2 viraemia is a useful variable to guide the initiation of treatment during disease progression.
Diagnostic Pathways: Microbiology samples were obtained showing a positive SARS-CoV-2 RT-PCR in nasopharyngeal exudate and an urine pneumococcal antigen. Laboratory tests showed a very low lymphocyte count: 2 CD4 cells/ml. He was initially treated with COVID-19 convalescent plasma, baricitinib, antibiotics and corticosteroids according to protocols. No group C opportunistic infection was diagnosed. Concomitant antiretroviral treatment was started (TDF/FTC-DTG) with good tolerance and absence of immune reconstitution inflammatory syndrome. Initial SARS-CoV-2 viraemia was 21 copies/ml, with progressive increase in the following days and clinical deterioration, so it was decided to administer remdesivir. The patient experienced overall clinical improvement and achieved an undetectable SARS-CoV-2 viral load.
Discussion and Learning Points: We requested the use of remdesivir on a compassionate use basis after protocolized treatment, clinical deterioration and persistent SARS-CoV-2 viraemia. We believe that monitoring SARS-CoV-2 plasma levels in severe cases may be useful to guide the use of this treatment. Further studies in immunocompromised patients are needed.

2237 / #EV0309

CLINICAL CHARACTERISTICS, MORTALITY RATES, USE OF HEALTHCARE RESOURCES AND COSTS OF MANAGING PATIENTS WITH COVID-19 IN SPAIN

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Background and Aims: To analyze the socioeconomic impact that the COVID-19 pandemic had in Spain, regarding healthcare and non-healthcare costs.
Methods: This is an observational and retrospective study based on the electronic medical registries from the BIG-PAC® database, which includes data of 1,8 million patients. Symptomatic patients with a diagnosis of COVID-19 were followed up to 6 months from the index date, defined as the date of diagnosis (between 31/06/2020 and 31/12/2020). Demographic and clinical characteristics, healthcare resources and costs were analyzed. Costs (€, 2020) were adjusted by sex, age, Charlson index scores, and the prevalence of patients with post-COVID-19 syndrome.
Results: The study considered 90,015 patients (mean age: 55.8 years; males: 55.3%), who were classified as outpatients (n=82,888) and inpatients (n=7,127). Outpatients had fewer comorbidities than those admitted to hospitals (mean Charlson index scores: 1.5 (standard deviation, SD: 1.6) vs. 0.4 (SD: 0.8); p<0.001). The post-COVID-19 syndrome was less frequent in outpatients compared to inpatients (37.7% vs. 69.6%, p<0.001). Throughout the study period, it was estimated that outpatients had a 15% lower risk of death than inpatients (Hazard ratio = 0.85 [95% confidence interval, CI: 0.83 – 0.87]; p<0.001). The healthcare resources most frequently required were primary care visits and hospitalizations, particularly in inpatients. Healthcare and non-healthcare costs of outpatients and inpatients during the follow-up period amounted to €1,429 (95% CI: 1,420-1,439) and €11,032 (95% CI: 10,996-11,068), respectively.
Conclusions: From the social perspective, the assistance to outpatients with COVID-19 may be at least 7 times less expensive than the management of inpatients.

1010 / #EV0310

CORTICOSTEROID USE DURING THE FIRST WAVE OF THE COVID-19 PANDEMIC ON OUR INTERNAL MEDICINE WARD

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Background and Aims: To assess whether patients with COVID-19 infection who required treatment with corticosteroids due to their severity have different hospital stay, mortality and admission to the ICU compared to those who did not require them.
Methods: We conducted a prospective observational study between 9/03/2020 and 02/04/2020 as part of the COVID-SEMI database and included variables such as age, sex, mean length of stay, mortality during or after admission and need for admission to the ICU.
Results: A total of 275 patients were registered of which 8 were lost. 175 were males (63.6) and 100 females (36.4) with a mean age of 68.5 (95% CI 66.69-70.32) years. From them we selected a group of 147 patients who received corticosteroid therapy and in whom we found a mean length of stay of 11.61 (10.44-12.77) days. Moreover, 120 of these patients survived (82.19%) and 26 did not (17.8%) and 18 required ICU (12.2%) and 129 did not (87.8%).
On the other hand, 120 patients were selected in whom corticoids

 DOI: 10.12890/2022_V9Sup1

were not prescribed and in whom we found a mean length of stay of 7.5 (6.42-8.57) days. Of these 91 survive (75.83%) and 29 do not (24.16%) and 4 require ICU (3.3%) and 116 do not (96.7%).
Conclusions: Severe patients with COVID-19 infection who have been treated with corticosteroids have a stay twice as long as those who did not require them, which makes us wonder whether the medical therapies applied at the beginning were useful and whether corticosteroid therapy should have been implemented earlier.

2233 / #EV0311

POST-COVID-19 PHENOTYPING IN ELDERLY PATIENTS AFTER DISCHARGE FROM HOSPITAL

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Background and Aims: On 11 March 2020, the WHO recognised SARS-CoV-2 infection and its disease (COVID-19) as a new pandemic. Elderly population has been one of the main risk groups for this viral infection and has post-COVID-19 sequelae remaining after infection. Our aim was to characterise the analytical, functional and symptomatological sequelae of SARS-CoV-2 infection in elderly population 3 months after hospital discharge.
Methods: 42 elderly patients with positive PCR of SARS-CoV-2 and admitted to the Internal Medicine Department of the Regional Hospital of Málaga, were followed up in the post-COVID-19 monographic consultation three months after hospital discharge. Analytical, functional and symptomatic parameters were analysed.
Results: 21 males and 21 females participated in this study. Average age of the patients was 76±9 years. The most frequent comorbidity at admission was hypertension and they were mainly treated with hydroxychloroquine and azithromycin for infection. Three months after hospital discharge, we found normalisation of analytical parameters, a significant increase in the degree of dependency and frailty, as well as an increase in the number of associated comorbidities. On the other hand, the most frequent sequelae were asthenia, weight loss and dyspnea.
Conclusions: SARS-CoV-2 infection has caused important sequelae in elderly patients affected by COVID-19 that affect their quality of life. Within 3 months of hospital discharge, this population shows an increased level of dependency, frailty and other clinical complications. Exhaustive identification of post-COVID-19 sequelae is essential to reduce morbidity and mortality in this population.

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SECONDARY PARSONAGE-TURNER SYNDROME A SARS-COV-2

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Case Description: The present clinical case deals with a healthy 50-year-old male doctor who began with headache, myalgia, cough, fever and general malaise. Three days later, he was diagnosed with COVID-19. A week later he was admitted to the ICU due to a worsening of his general condition presenting bilateral pneumonic infiltrate requiering endotracheal intubation and connection to invasive mechanical ventilation were required during 7 days, due to an adult respiratory distress syndrome. Since the begining of the symptoms he received treatment with kaletra, hydroxychloroquine, azithromycin, interferon beta, cefriaxone, tocilizumab and corticosteroids. He highlighted significant generalized muscle weakness with marked loss of strength in the proximal right upper limb.
Clinical Hypothesis: The exploration showed lowered right shoulder, deltoid atrophy and serratus major, right winged scapula. Discrete right glenohumeral subluxation, tendon reflexes was present. Muscular balance: Lack of antepulseors of the right upper limb (0º- 90º), with scapular substitution, shoulder abductors 45º.
Diagnostic Pathways: Given the persistence of the deficit, an electromyogram was performed on May 27, which revealed a probably autoimmune right brachial plexopathy in the context of post-COVID right amyotrophic neuralgia, compatible with Parsonage Turner syndrome (PTS).
Discussion and Learning Points: Coronaviruses do not always remain confined to the respiratory tract, they can also invade the central nervous system. Neurological symptoms have been described in patients affected by COVID-19, such as headache, dizziness, myalgia and anosmia, as well as cases of encephalopathy, encephalitis, stroke, seizures, rhabdomyolysis and Guillain-Barré syndrome.
The SPT has an initially clinical diagnosis, supported by the physical and the electromyographic examination, which documents its extension.

 DOI: 10.12890/2022_V9Sup1

1023 / #EV0313

THE EFFECT OF ALCOHOLISM ON MORTALITY IN COVID-19 PNEUMONIA

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Background and Aims: Analyze the effect of alcoholism on mortality in COVID-19 pneumonia.

Methods: A retrospective observational cohort study was performed of the effect of alcoholism on mortality (according to WHO ordinal scale) on day 28 from admission, including patients from March to September of 2020, with SARS-CoV-2 pneumonia and SpO2 <94%. Data recolection was approved by hospital's CEIC, and its analysis carried out by binary logistic regression and adjusted with index matching propensity.

Results: Of a total of 929 patients: 62.2% were male, mean age 68 (55-78), 54.0% were hypertensive, 24.1% diabetic, 17.7% had heart disease, 22.9% had chronic lung disease and 23.0% oncohematological disease. Median initial SpO2FiO2 was 429 (332-452), median initial CRP 78.1 mg/ L(33.4-138). 34.1% received corticosteroid and 6,8% remdesivir. 6.6% were admitted in ICU. Regarding alcohol use: 3.0% were active drinkers, 3.3% ex-drinkers and 93.6% non drinkers. Fourteen drinkers or ex-drinkers died (23.7%) and 211 non-drinkers (24.3%). Data analysis adjusted by confounding variables (age, sex, smoking, heart disease, neoplasia and dyspnea) shows that alcoholism has no effect on mortality (OR 0.96; 95% CI 0.41-2.24; p=0.956). Despite various meccanisms by which alcoholism could worsen SARS-CoV-2 disease (stimulation of pro-inflamatory citokines TNK-α, IL1 and IL6; increased expression of antiotensin II receptor in alveolar cells, increased destruction of epithelial intercellular junctions) scientific studies to date have not managed to demonstrate a statistically significant increase in mortality in SARS-CoV-2 infecction by alcoholism. Results obtained in this study are consistent with previous data available.

Conclusions: In this study, alcoholism had no effect on mortality in pneumonia SARS-CoV-2.

143 / #EV0314

CLINICAL IMPACT OF CHRONIC ANTICOAGULATION IN PATIENTS WITH SARS-COV-2 INFECTION

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Background and Aims: SARS-CoV-2 infection is associated with an increased risk of thromboembolic disease. The objective of this study is to compare whether patients hospitalized for SARS-CoV-2 infection who were chronically anticoagulated had less complications such as acute myocardial infarction (AMI), stroke, disseminated intravascular coagulation (DIC), acute respiratory distress syndrome (ARDS), multiorgan failure (MOF).

Methods: Retrospective observational study that includes 324 patients hospitalized at the San Carlos Clinical Hospital in Madrid in March 2020. Patients with positive PCR for SARS-Cov-2 were selected. They were divided into two groups according to whether they were chronically anticoagulated or not, to analyze variables such as: AMI, stroke, DIC, ARDS, MOF and mortality. A descriptive and analytical study was carried out.

Results: 21% of patients were chronically anticoagulated. The group of anticoagulated patients was older (80 vs 65 years), their percentage of women was lower (33% vs 46%), and they had a higher score on the Charlson index (2.21 vs 1.4) and a history of arterial hypertension (81% vs 48%). They also presented ARDS in a higher percentage (36.1 vs 23%, p<0.05), as well as DIC (3.1 vs 0.4%, p<0.05), MOF (24.6 vs 10 , 6%, p<0.05) and mortality (62.5 vs 33.5%, p<0.05). An inverted trend was found in AMI and stroke, without reaching statistical significance.

Conclusions: Among chronically anticoagulated patients with COVID-19 infection, a greater number of complications such as ARDS, DIC, multi-organ failure and mortality were observed. In the group of anticoagulated patients, there was a higher percentage of hypertensive patients and men.

 DOI: 10.12890/2022_V9Sup1

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MULTIDISCIPLINARY APPROACH AFTER ACUTE COVID19 INFECTION IN A TERTIARY CARE HOSPITAL

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Background and Aims: After acute SARS-CoV-2 infection, many patients require long-term medical attention. The aim of this study is to compare the presentation of sequelae in inpatient or outpatient management of COVID-19 patients.

Methods: 162 patients were divided into two groups, depending on whether they had been hospitalized or not. Statistical analysis was performed.

Results: 27.8% patients were referrals from Primary Care, 69.8% were post-hospitalization follow-up, and 2.5% were referred from other departments. Hospitalized patients (51.6% men; 70.5±9.0 years) had moderate to critical evolution with previous associated comorbidities. They suffered respiratory failure during the acute infection: moderate (45.9%), severe (34.4%) or critical (16.4%). The most frequent complication was presence of infiltrates at discharge (68.9%). The discharge rate from follow-up consultation was 63.1%. The non-hospitalized group (70.0% women; 50.1±16.6 years), had no relevant medical history. They had mild acute infection (100%) without need for admission or oxygen therapy. They presented heterogeneous and fluctuating symptoms. The percentage of finished follow-up was 47.5%. Both groups presented statistically significant differences in gender, age, comorbidities and type of sequelae. No differences found in number of consultations between groups.

Conclusions: COVID-19 patients who suffered a more adverse acute phase have important complications but usually normalize their clinical situation. Some patients with mild acute infections developed medium-term conditions of lesser severity but incapacitating for their daily life, without clinical discharge in many cases.

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PLATYPNEA-ORTHODEOXIA WITH PATENT FORAMEN OVALE IN A PATIENT WITH SEVERE SARS-COV-2 INTERSTITIAL PNEUMONIA. A CASE REPORT

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Case Description: An 80-year-old male with history of ischemic heart disease with preserved ejection fraction and controlled hypertension; non-smoker, and had no previous history of pulmonary or congenital heart disease. On admission to our ward with fever, shortness of breath, confusion, diarrhea and vomiting. On room air with type 1 respiratory failure (pH 7.51; PaO2 60 mmHg; paCO2 26 mmHg, R P/F 288). Two weeks after the diagnosis there was a deterioration of respiratory failure, with the need to escalate oxygen therapy to high flow nasal cannula and non-invasive ventilation.

Clinical Hypothesis: Pulmonary embolism; heart failure; secondary bacterial infection.

Diagnostic Pathways: CT showed bilateral diffuse peripheral ground-glass opacity in every pulmonary lobe. Re-evaluation CT showed fibrotic evolution, suggesting organizing pneumonia. On the 30th day of illness it was noticed his hypoxemia was more profound while he was standing (with 88% saturation), and improved when he laid down (saturation of 96%). A transthoracic echocardiogram with bubble showed signs of pulmonary hypertension and a significant right-to-left shunt through a PFO.

Discussion and Learning Points: It was assumed extensive post-COVID-19 organizing pneumonia, precipitated pulmonary hypertension, and reversion of shunt to right-to-left. Under corticosteroids and physiotherapy, platypnea-orthodeoxia improved by day 45 of illness. On discharge, the patient denied dyspnea and his PaO2 was 69.6mmHg on room air in orthostasis. POS is an underrecognized syndrome associated with a variety of other clinical entities. It should be considered in COVID-19 pneumonia patients after ruling out other causes of respiratory distress. It is paramount to determine the etiology, since treatment is guided by the pathophysiology of the shunt

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IMPORTANCE OF VACCINATION IN THE PREVENTION OF RESPIRATORY COMPLICATIONS IN PATIENTS HOSPITALIZED FOR SARS-COV 2 INFECTION

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Background and Aims:

The incidence of respiratory complications in COVID infection what include the need of ventilatory support, known as high oxygen flow mask (HOFM), high-flow nasal cannula (HFNC) therapy, non-invasive mechanical ventilation (NIMV) and intubation, are important because of the high morbidity associated. In that way, the vaccines for the virus have brought the chance to get immunity against COVID-19. Our main aim would be to know if at least one dose of the vaccine can provide protection against these respiratory complications .

Methods: Retrospective cohort study, descriptive, in patients who have been confirmed of COVID infection with PCR or antigenic test. We have made a comparison between 46 vaccinated patients and 46 non-vaccinated. Both groups have similar features.

Results: From the vaccinated group we found that 38 patients had

 DOI: 10.12890/2022_V9Sup1

bilateral pneumonia, 16 of them needed HOFM, 6 needed NIMV or HFNC. No one of this group has been intubated but a patient has moved to Intensive Care Unit (ICU) From the unvaccinated group, 42 had bilateral pneumonia, 24 required HOFM, 15 have needed HFNC or NIMV, 7 of them have moved to ICU and 3 were intubated.
Conclusions: With a RR of 0.71 we could say that one dose of vaccination has rentability to avoid complications but with an CI 95% [0.44-1.13] we couldn't assure it. We found significant differences on NIVM and the need for ICU admission between the two groups.

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APPLICABILITY OF PRETEMED, PADUA, CAPRINI AND IMPROVE SCALES IN COVID-19

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Background and Aims: Our objective is to analyze the adequacy of thrombotic/hemorrhagic risk scores (PRETEMED, Padua, Caprini and IMPROVE) in COVID-19.
Methods: Retrospective, observational and analytical cohort study of patients admitted to our hospital during January 2021 with SARS-CoV-2 pneumonia confirmed by PCR or antigen test. Quantitative variables of normal and abnormal distribution were compared by Student's t-test and Mann-Whitney U test. Categorical variables were compared using chi square. Results were expressed as mean ± standard deviation, median or number. Through bivariate and later multivariate analysis, quantification on the scales described was related to thromboembolic and hemorrhagic events, the need for invasive mechanical ventilation, and mortality.
Results: A total of 88 patients were available, mean age of 67 years, median of 69, 45 women and 43 men. 12 patients (13.6%) had been diagnosed or currently presented a malignant oncological process. A single patient had a previous DVT. No case with hyperhomocystinemia was detected and only one case with previous thrombophilia was observed. Regarding the risk scores, mean value was obtained on the IMPROVE score of 3, Caprini of 3, PRETEMED of 4 and Padua of 4. All the scales were significantly related to mortality and the need for invasive mechanical ventilation. Padua and Caprini scores were significantly related to the appearance of deep vein thrombosis.
Conclusions: The IMPROVE, PRETEMED, Caprini and Padua scales predict mortality in patients hospitalized for SARS-CoV 2 pneumonia. The Padua and Caprini scores appear to be useful in predicting the risk of deep vein thrombosis in this group of patients.

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DOSAGE OF LOW MOLECULAR WEIGHT HEPARIN ACCORDING TO THE PROTHROMBOTIC SITUATION OF THE PATIENT WITH SARS-COV-2 PNEUMONIA

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Background and Aims: Our aim is to assess the effects of adapting the low molecular weight heparin (LMWH) dosage, according to the prothrombotic situation, on mortality, invasive mechanical ventilation, hospital stay and thromboembolic/hemorrhagic events.
Methods: Retrospective, observational and analytical cohort study on patients admitted with pneumonia due to SARS-CoV-2 in our hospital during the month of January 2021. Analysis of demographic variables, hemogram, biochemistry and coagulation on admission and discharge, zenith D-dimer, CRP, PCT, trough lymphocyte level, extent of pneumonia, thromboembolic/hemorrhagic events, LMWH dosage. Contingency tables analyzing frequency measures and measures of association or effect. Hypothesis testing, Mantel-Haenszel Chi test and multivariate analysis.
Results: A total of 88 patients, of which 74 received prophylactic, 5 intermediate and 9 therapeutic doses. The deceased had a higher lymphopenia trough ($p<0.001$), higher maximum LDH ($p<0.001$) and CRP ($p=0.021$). In the bivariate analysis, mortality was significantly related to COPD ($p<0.001$), CKD ($p=0.037$), ASA ($p=0.001$) and ACEI ($p=0.009$), DVT ($p=0.009$) and PET ($p=0.027$) and inverse relationship with iDPP4 ($p=0.027$). The adaptation of the LMWH dosage did not imply significant differences in terms of mortality ($p=0.95$), invasive mechanical ventilation ($p=0.259$), PE ($p=0.84$), DVT ($p=0.951$), bleeding ($p=0.463$) or days of stay ($p=0.441$).
Conclusions: We have not shown that modifying the low molecular weight heparin dosage in SARS-CoV-2 pneumonia depending on the procoagulant status of the patient or its severity influences mortality, need for invasive mechanical ventilation or length of stay. Nor has it been shown that increases the number of cases of severe bleeding compared to what is expected.

 DOI: 10.12890/2022_V9Sup1

118 / #EV0320

PROGNOSTIC VALUE OF THE PROFUND AND BARTHEL INDICES IN PATIENTS HOSPITALIZED FOR SARS-COV-2 PNEUMONIA

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Background and Aims: Our aim is to evaluate the prognostic value of the PROFUND and BARTHEL index on patients hospitalized for SARS-CoV-2 pneumonia.
Methods: Retrospective, observational and analytical cohort study on patients admitted with SARS-CoV-2 pneumonia in our hospital during January 2021. Calculation of PROFUND and BARTHEL, outcome verification (discharge versus death) as well as days of hospital stay. Contingency tables analyzing frequency measures and measures of association or effect. The quantitative variables of normal and abnormal distribution were compared using the Student's t test and the Mann-Whitney U test, respectively.
Results: A total of 88 patients were analyzed, with a mean age of 67 years (range 23-93) and a median of 69, of which 45 were women and 43 were men. Regarding cardiovascular risk factors, 62 patients (70.5%) were diagnosed with arterial hypertension, 39 (44.3%) with hypercholesterolemia and 36 (40.9%) with diabetes mellitus. A quarter of the patients were classified as obese. Nine patients (10.2%) had a history of ischemic heart disease. The mean value of the PROFUND index among deceased patients was significantly higher than that of survivors (7.83 vs 2.76 [p = 0.002]). The mean value of the BARTHEL index among patients deceased was significantly lower than that of survivors (64.37 vs 81.19 [p = 0.006]). There were no significant differences in either of the two indices regarding the days of hospital stay.
Conclusions: The PROFUND and BARTHEL index predict mortality among patients hospitalized for SARS-CoV-2 pneumonia. There were no differences regarding the days of hospital stay.

2623 / #EV0321

COMPLEMENT MEDIATED AUTOIMMUNE HEMOLYTIC ANEMIA AND PULMONARY EMBOLISM AS A COMPLICATION OF COVID-19 INFECTION

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Case Description: We present the case of a 66 years old man admitted to our Unit after a 7 days history of weakness, dyspnea, chest pain and a presyncopal episode. The patient's past medical history only revealed hypertension. He reported 20 days prior to admission, a history of flu-like symptoms when he tested positive to SARS-CoV2 infection. Laboratory tests revealed macrocytic anaemia (7.8 mg/dL, MCV 108.4 fl n.r. 81.2-94 fl), increased reticulocyte count, LDH (784 U/L n.r. 87-241 U/L), total bilirubin (3.20 mg/dL n.r. 0.3-1mg/dl), abnormal d-dimer (2442 ug/L n.r. <500 ug/L), reduction in haptoglobin (<0.08 g/L n.r. 0,3 – 2 g/L), C3 (0.67 g/L n.r. 0.9-1.8 g/L), C4 (0.03 g/L n.r. 0.1-0.4 g/L).
Clinical Hypothesis: The clinical and laboratory picture araised the suspicion of autoimmune hemolytic anemia, suggesting also a possible correlation between COVID-19 infection and the development of autoimmune dysregulation as previously described in literature.
Diagnostic Pathways: A positive Coombs test identifying the presence of an IgG + C3d, confirmed the diagnosis wAIHA. Other laboratory tests were carried out with no relevant findings. Chest CT scan was performed and showed the presence of pulmonary embolism. No abnormalities in the peripheral vascular system were detected through doppler ultrasound.
Discussion and Learning Points: This case revealed a double correlation between COVID-19 infection and AIHA as potential risk factors to the development of PE. Both conditions may enhance procoagulant reactions through several underlining mechanisms such as SARS-CoV-2-initiated inflammatory response, as well as antibody related triggers, assembly of enzymatic complexes and cell-free hemoglobin induced adesion molecules expression on the enothelial cells found in AIHA.

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EFFECT OF INTERFERON BETA 1B ON MORTALITY IN COVID-19 PNEUMONIA

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Background and Aims: There are several studied therapies for the treatment of SARS-CoV-2 infection but no antiviral agent has proven to be effective. The effects of interferon beta-1b in this infection aren't known.
Methods: This is a retrospective observational cohort study on the effect of Interferon beta-1b (250 mcg/48 h SC) on mortality according to the WHO ordinal scale on day 28 from admission, in 1043 patients admitted to the Universitary Hospital "Príncipe de Asturias "from March to September 2020, with SARS-CoV-2 pneumonia and SpO2 <94% at baseline. Analysis with binary logistic regression has been performed and adjusted with propensity index score.
Results: Of the 1009 patients, 62.2% are men, median age 68 (IQR 55 to 78) years, with comorbidities (54% hypertensive, 24.1% diabetic, 17.7% heart disease, 22.9% chronic lung disease and

 DOI: 10.12890/2022_V9Sup1

23.0% oncohaematological), median initial SpO2FiO2 429 (IQR 332 to 452), median initial CRP 78.1 (IQR 33.4 to 138) mg/L, 6.8% were treated with remdesivir, the 34.1% with corticosteroids and 6.6% were admitted to the ICU. 193 (16.3%) received interferon beta-1b and 845 (83.7%) didn't received it. 62 (37.8%) of those who received interferon beta-1b and 190 (22.5%) of those who did not receive it, died (OR 2.10; 95% CI 1.47 to 2.99; p<0.001). In the analysis adjusted for the confounding variables like age, sex, immigrant, hypertension, diabetes, dyslipidemia, heart disease, etc no effect on mortality was observed (OR1.31; 95%CI 0.83 to 2.07; p=0.247).
Conclusions: In this observational study, Interferon beta-1b had no effect on mortality in SARS-CoV-2 pneumonia. Randomized and controlled studies are necessary.

2725 / #EV0323

ORGANIZING PNEUMONIA SECONDARY TO COVID-19: CLINICAL PRESENTATION AND THERAPEUTIC ORIENTATION

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Case Description: Male, 70 years old, no relevant personal history. Diagnosis of COVID-19 with 10 days of evolution, the patient was referred to hospital for persistent fever and cough.
Clinical Hypothesis: Complicated COVID-19 infection and/or bacterial over-infection.
Diagnostic Pathways: Blood gas analysis with hypoxemic respiratory failure. Analytical study with lymphopenia and elevated C-reactive protein. Thoracic computed axial tomography shows areas of ground glass and linear consolidations in a crazy-paving pattern, affecting more than 50% of the lung parenchyma.
Discussion and Learning Points: The case describes a picture of organizing pneumonia (PO) secondary to COVID-19. The patient was admitted to an intermediate care unit with corticotherapy and high flow oxygen therapy. The patient evolved favorably with clinical and imagiological improvement (however maintaining peripherally predominant pulmonary interstitial densifications and structural disorganization of the lung parenchyma). Lung damage caused by COVID-19 may appear as secondary PO. It usually appears subacutely and sometimes leads to severe respiratory failure or even irreversible lung damage. In these cases, given the non-specificity of the clinical picture, imaging plays an essential role in their diagnosis. The treatment of this entity is still controversial, and the use of high-dose corticoids is currently approved. However, the use of other immunomodulatory prognostic agents, such as macrolides, is already being proposed. It is therefore important to distinguish these cases to institute the most appropriate treatment at an early stage.

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IMMUNOMODULATION AND REDUCTION OF THROMBOEMBOLIC RISK IN HOSPITALIZED COVID-19 PATIENTS: SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED TRIALS

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Background and Aims: Several immunomodulatory agents were proposed as potential therapeutic options for severe COVID-19 to inhibit the pro-inflammatory effect and its consequences on pulmonary and other organ function. We aimed to investigate the potential beneficial effect of immune modulation therapy on the thromboembolic risk in hospitalized COVID-19 patients.
Methods: We searched PubMed and Scopus for randomized trials reporting the outcomes of venous thromboembolism (VTE), ischemic stroke or systemic embolism, myocardial infarction, any thromboembolic event and all-cause mortality in COVID-19 patients treated with immunomodulatory agents. Odds ratios (OR) and 95% confidence intervals (CI) were calculated using the Mantel–Haenszel random-effects method.
Results: Among 8499 patients hospitalized with COVID-19, 4638 were treated with an immunomodulatory agent and 3861 with usual care only. Among patients assigned to immunomodulatory agents, VTEs occurred in 1.77 compared to 2.30 per 100 patient-months, among those treated with usual care (OR:0.84, 95% CI:0.61-1.16; I2:0%). Among patients who received interleukin-6 (IL-6) antagonist, VTEs were reported in 12 among 1075 patients compared to 20 among 848 in the usual care (OR:0.52, 95% CI:0.22-1.20; I2:6%). Immunomodulators as an add-on to usual care did not reduce the risk of stroke or systemic embolism (OR:1.10, 95% CI:0.50-2.40; I2:0%) or myocardial infarction (OR:1.06, 95% CI:0.47-2.39; I2:0%) and there was a non-significant reduction in any thromboembolic event (OR:0.86, 95% CI:0.65-1.14; I2:0%).
Conclusions: We did not identify a statistically significant effect of immunomodulation on prevention of thromboembolic events in COVID-19. However, given the large effect estimate for VTE

 DOI: 10.12890/2022_V9Sup1

prevention, especially in patients treated with IL-6 antagonists, we cannot exclude a potential effect of immunomodulation

1688 / #EV0325

SURVIVAL ANALYSIS OF IL-6 INHIBITORS VERSUS STANDARD OF CARE FOR COVID-19: A META-ANALYSIS OF INDIVIDUAL PATIENT DATA FROM RANDOMIZED CONTROL TRIALS

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Background and Aims: The aim of the study was to compare the effect of IL-6 inhibitors versus Standard of Care (SOC) on survival in patients with COVID-19.

Methods: A systematic review of MEDLINE (via PubMed) and Scopus databases (last search date: October 10th, 2021) was performed according to the PRISMA statement for randomized control trials (RCTs) of IL-6 inhibitors versus SOC in patients with COVID-19. Individual patient data on overall survival (OS) were extracted from Kaplan-Meier curves. We subsequently performed one-stage frequentist random-effects meta-analyses using both Cox proportional hazards. Two-stage random-effects meta-analyses were also performed as sensitivity analyses.

Results: Overall, 10 RCTs incorporating 7,219 patients (IL-6 inhibitors: 3,940; SOC: 3,279) were included in our study. In the one-stage frequentist meta-analysis, the IL-6 group had superior OS (hazard ratio [HR]: 0.76, 95% confidence interval [CI]: 0.69–0.83, p<0.001). The OS benefit was also noted in the two-stage meta-analyses models ([HR]: 0.84, 95% [CI]: 0.77–0.92, p<0.001).

Conclusions: In patients with COVID-19, IL-6 inhibitors' utilization is associated with better OS compared to acetylsalicylic acid.

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QUALITY OF LIFE AND COPING WITH DEATH IN INTERNAL MEDICINE HEALTHCARE PROFESSIONALS BEFORE AND AFTER A GLOBAL PANDEMIC

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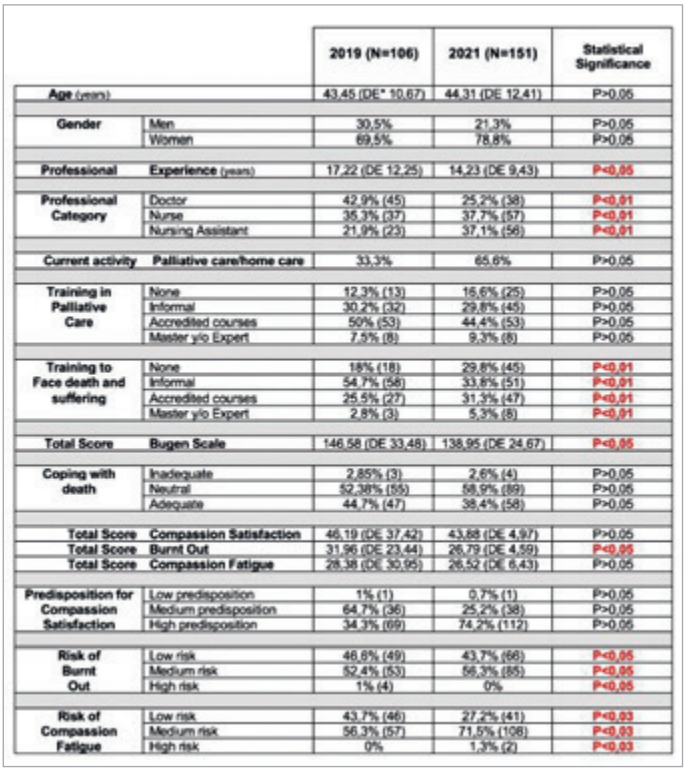
Background and Aims: To assess differences before and after SARS-CoV-2 pandemic in quality of life and coping with death strategies on a Spanish Internal Medicine service.

Methods: Descriptive study on Internal Medicine professionals through an online survey with sociodemographic variables, Coping with death scale and Quality of life scale between February-March 2019 and March-April 2021.

Results: A total of 106 professionals answered in 2019 (69.5% women, 43±11 year-old) whereas 151 did it in 2021 (78.8% women, 44±12 year-old). In 2021 the mean professional experience was higher [17 vs 14 years (p<0.05)], the number of physicians who answered lower (25% vs 43%), and of nursing assistants higher (37.1% vs 21.9%, p<0.05). Accredited training to face suffering and death was significantly lower in 2021 [(25.5% vs 31.3%) p<0.05)]. Total score on Bugen Scale in 2019 was 146.58±33.48 vs 138.95±24.67 in 2021 (p<0.05). Higher scores on risk of burnout were found in 2021 (31.96 vs 26.79) (p<0.05). Comparing 2019 to 2021, 46.6% vs 43.7% presented low risk of burnout; 52.4% vs 56.3% medium risk and 1% vs 0% high risk (p<0.05). In addition 43.7% vs 27.2% showed low risk of compassion fatigue; 56.3% vs 71.5% intermediate risk and 0% vs 1.3% high risk (p<0.05).

Conclusions: After a pandemic year, the risk of compassion fatigue, burnout and inadequate coping with death has increased significantly. It is necessary to develop intervention strategies to avoid a deterioration of quality of life in health-care professionals.

 DOI: 10.12890/2022_V9Sup1



		2019 (N=106)	2021 (N=151)	Statistical Significance
Age (years)		43,45 (DE* 10,67)	44,31 (DE 12,41)	P>0,05
Gender	Men	30,5%	21,3%	P>0,05
	Women	69,5%	78,8%	P>0,05
Professional	Experience (years)	17,22 (DE 12,25)	14,23 (DE 9,43)	P<0,05
Professional Category	Doctor	42,9% (45)	25,2% (38)	P<0,01
	Nurse	35,3% (37)	37,7% (57)	P<0,01
	Nursing Assistant	21,9% (23)	37,1% (56)	P<0,01
Current activity	Palliative care/home care	33,3%	65,6%	P>0,05
Training in Palliative Care	None	12,3% (13)	16,6% (25)	P>0,05
	Informal	30,2% (32)	29,8% (45)	P>0,05
	Accredited courses	50% (53)	44,4% (53)	P>0,05
	Master y/o Expert	7,5% (8)	9,3% (8)	P>0,05
Training to Face death and suffering	None	18% (18)	29,8% (45)	P<0,01
	Informal	54,7% (58)	33,8% (51)	P<0,01
	Accredited courses	25,5% (27)	31,3% (47)	P<0,01
	Master y/o Expert	2,8% (3)	5,3% (8)	P<0,01
Total Score	Bugen Scale	146,58 (DE 33,48)	138,95 (DE 24,67)	P<0,05
Coping with death	Inadequate	2,85% (3)	2,6% (4)	P>0,05
	Neutral	52,38% (55)	58,9% (89)	P>0,05
	Adequate	44,7% (47)	38,4% (58)	P>0,05
Total Score	Compassion Satisfaction	46,19 (DE 37,42)	43,88 (DE 4,97)	P>0,05
Total Score	Burnt Out	31,96 (DE 23,44)	26,79 (DE 4,59)	P<0,05
Total Score	Compassion Fatigue	28,38 (DE 30,95)	26,52 (DE 6,43)	P>0,05
Predisposition for Compassion Satisfaction	Low predisposition	1% (1)	0,7% (1)	P>0,05
	Medium predisposition	64,7% (36)	25,2% (38)	P>0,05
	High predisposition	34,3% (69)	74,2% (112)	P>0,05
Risk of Burnt Out	Low risk	46,6% (49)	43,7% (66)	P<0,05
	Medium risk	52,4% (53)	56,3% (85)	P<0,05
	High risk	1% (4)	0%	P<0,05
Risk of Compassion Fatigue	Low risk	43,7% (46)	27,2% (41)	P<0,03
	Medium risk	56,3% (57)	71,5% (108)	P<0,03
	High risk	0%	1,3% (2)	P<0,03

#EV0326 Table 1: Results 2019 vs 2021.

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HOW NUTRITIONAL STATUS INFLUENCES ON COVID19 PATIENT'S EVOLUTION IN A REGIONAL HOSPITAL

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Background and Aims: Obesity and malnutrition induce an unfavorable evolution in COVID-19 patients. An initial nutritional assessment is essential using different tools such as CONUT scale, Mini nutritional assessment (NMA) scale, MUST scale, among others. Describe the risk of malnutrition in hospitalized COVID-19 patients at Infanta Elena Hospital (Huelva).

Methods: Retrospective analysis on 187 patients admitted for COVID19 between January and March 2021 followed on posterior revision. We studied risk of malnutrition and possible relationships with sociodemographic and analytical variables.

Results: CONUT scale was calculated in 116/187 people. Mean score was 2.27±1.84 points. An 87.1% (101) presented low risk of malnutrition, 12.9% (15) a medium risk. A positive correlation was observed between CONUT total score and age (p<0.05). Average score on men: 2.53±1.86 points vs 1.98±1.79 points on women (p<0.05). Into low-risk group: 50.5% were male (51) vs 49.5% (50) female. In moderate risk: 60% (9) were male and 40% female (6). Average stay on low-risk malnutrition patients was 8.47±5.45 days, compared to 9.47±10.06 days in moderate ones (p>0.05). No relationship was found between mean stay and the total CONUT score (p>0.05). We found a positive correlation between D-dimer and time of admission, being negative with albumin value.

Conclusions: An 87.1% presented low risk of malnutrition, 12.9% medium risk. Mean score on scale was higher in elders and men. No differences on mean stay according to CONUT score, being greater in patients with lower albumin levels and higher D-dimer.

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WHAT DEPENDS ON THE AVERAGE STAY OF COVID19 PATIENTS IN A REGIONAL HOSPITAL?

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Background and Aims: To describe the relationship between sociodemographic and therapeutic profile variables and average stay on COVID-19 patients.

Methods: Descriptive observational analysis on 187 COVID-19 patients admitted between January and March 2021 followed on posterior medical consultation.

Results: Medium average stay: 7 days (ICR 6). Existed a positive correlation between the age and hospital admission (p<0.05). No differences in hospital stay according to gender.

Patients who required ventilatory support beyond conventional oxygen therapy (19,30%: 44,4% ONAF, 38,88% NIMV, 16,7% IMV) remained hospitalized for 15.83±8.9 days compared to 6.23±3.5 days for those who did not (p<0.05). Average stay in patients treated with corticosteroids (93.48%) was 8.93±6.48 days compared to 8±3.16 days in those who did not (p>0.05). Those who received bemiparin at therapeutic or intermediate (38%) doses stayed hospitalized for 10.14±8.25 days compared to 6.81±3.95 days in those with prophylactic doses (p<0.05). No differences between people treated with vitamin D and not. Rendesivir was used on 84.43% patients. Tozilizumab on 24.73%. Both drugs on 5.88%. Rendesivir-treated patients hospitalized for 12.6±6.6 days versus 7.18 ± 5.8 days (p<0.05). Average stay in those treated with tozilizumab was 12.62±8.81 days compared to 6.56±4.28 days for those who did not (p<0.05).

Conclusions: Older patients needed longer admission. Those who required supplemental oxygen ventilation to conventional, intermediate/therapeutic dose heparin, or tozilizumab stayed hospitalized longer, probably related to a higher risk profile. The patients treated with rendesivir had longer stay probably due to the indicated pattern of 5 days.

 DOI: 10.12890/2022_V9Sup1

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COVID19 GLOBAL PANDEMIC: EMOTIONAL IMPACT IN HEALTHCARE PROFESSIONALS OF A INTERNAL MEDICINE SERVICE.

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Background and Aims: To assess the quality of life and coping with death of Internal Medicine healthcare professionals along SARS-CoV-2 pandemic.

Methods: Descriptive study on professionals of an Internal Medicine service by a self-administered survey with sociodemographic variables, Bugen's coping with death scale and Pro-Quality of life scale.

Results: A total of 151 of 361 professionals answered (78.8% women, 43±1 years-old). Most respondents were nurses (37.7%), followed by nursing assistants (37.1%), and physicians (25.3%); with 14±1 years of professional experience; 65.6% were working on a palliative care area; and 17.2% had suffered COVID-19. A 63.7% and 36.6% of respondents had received accredited training in palliative care and facing with suffering or death, respectively. The main results of the survey were: Coping with death: inadequate (2.6%), neutral (58.9%), adequate (38.4%). Predisposition for Compassion Satisfaction: low (0.7%), medium (25.2%) and high (74.2%). Risk of Burnout: low (43.7%), medium (56.3%). Risk of compassion fatigue: low (27.2%), medium (71.5%) and high (1.3%). The differences between those who provided direct care to covid-19 patients with respect to the remaining respondents are detailed in the Table 1.

Conclusions: Most of respondents presented medium risk of burnout and adequate or neutral strategies to coping with death. Those who treated COVID-19 patients, showed greater predisposition to higher compassion satisfaction.

		DIRECT CARE TO COVID19+		
		NO (N=51)	YES (N=100)	statistical significance
Total score	Bugen's Scale	141,22 (DE 24,39)	137,8 (DE 24,86)	P>0,05
Total score	Compassion Satisfaction	43 (DE 5,20)	44,33 (DE 4,82)	P>0,05
Total score	Burnout	32,06 (DE 4,6)	31,92 (DE 4,61)	P>0,05
Total score	Compassion Fatigue	26,57 (DE 6,05)	26,50 (DE 6,65)	P>0,05
Coping with Death (Bugen's Scale)	A. Inadequate	2% (1)	3% (3)	P>0,05
	A. Neutral	56,9% (29)	60% (60)	P>0,05
	A. Adequate	41,2% (21)	37% (37%)	P>0,05
Predisposition for Compassion Satisfaction	Low	0% (0)	1% (1)	P<0,05
	Medium	37,3% (19)	19% (19)	P<0,05
	High	62,7% (32)	80% (80)	P<0,05
Risk of Burnout	Low	0% (0)	1% (1)	P>0,05
	Medium	98% (50)	97% (97)	P>0,05
	High	2% (1)	2% (2)	P>0,05
Risk of Compassion Fatigue	Low	23,5% (12)	29% (29)	P>0,05
	Medium	76,5% (69)	69% (69)	P>0,05
	High	0% (0)	2% (2)	P>0,05

#EV0329 Table 1: Differences between people who gave direct care to covid 19 or not.

532 / #EV0330

HOW DEMOGRAPHY AND SOCIAL DISTANCING RULES ADOPTED DURING THE COVID-19 PANDEMIC IMPACTED IN SEASONAL ONSET OF VIRAL AND BACTERIAL PNEUMONIA IN TWO AREAS OF ABRUZZO

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Background and Aims: Different strategies were used, in Italy, to face COVID-19 pandemic, from social distancing and PPE (personal protection equipment) obligation of utilization to total lockdown. Italy had to deal with three main waves of contagion, each one with various impact in different regions around the nation. The aim of this work was to find out if these strategies were effective to preserve collective health and socio-economic dynamics.

Methods: We analyzed 15,603 hospitalization records of LHB 1 (local health board) and LHB 3 of Abruzzo region using data mining tools, and we compared COVID-19 related International Classification of Disease (ICD-9) codes, from the 1st of January 2018 to 31st of March 2021.

Results: A higher number of COVID-19's cases occurred in the second wave, but LHB 3 was more affected than LHB 1. Their different socio-economic and environmental features appeared to be correlated to a more critical health state for LHB 3 and led to another age-dependent distribution of COVID-19 infection. Infective pneumonias, by the way, significantly decreased in the last 15 months.

Conclusions: The lowest COVID-19 diffusion was correlated to the higher level of restrictive laws in both the areas but considering socio-economic differences can lead to a better anti-contagion strategy in managing highly infective diseases and preserving socio-economic dynamics as a matter of fact. Collaterally to the COVID-19 cases decrease, many other bacterial and viral respiratory infections appeared to slow down during this period of social and behaving restrictions, proving to be significantly effective in future health policy.

 DOI: 10.12890/2022_V9Sup1

1618 / #EV0331

CORRELATION OF DISEASE SEVERITY MARKERS AND PROGNOSIS IN COVID-19 PATIENTS WITH HYPOMAGNESAEMIA

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Background and Aims: Hypomagnesaemia is a common disorder in hospitalized patients and predisposes to life-threatening complications (hypokalemia, ventricular arrhythmias). The aim of this study was to describe the frequency of hypomagnesaemia and its correlations with the prognosis of COVID-19 patients.

Methods: Data of 334 patients, who were hospitalized in the Infectious Diseases Unit of University General Hospital of Ioannina during the period 02/2020-12/2020, were analyzed. Hypomagnesemia was defined by levels of Mg+<1.3 mEq/L. The comparison was done between the group of patients with and without hypomagnesaemia. Data analysis was performed with a non-parametric Mann-Whitney U test, on the platform R v 4.0.5.

Results: Hypomagnesaemia on admission was present in 105 patients (31.4%), while during hospitalization in 242 (72.4%). The group of patients with hypomagnesaemia on admission had longer hospitalization (12 vs 15 days, p=0.050). Both in the group of patients with hypomagnesaemia on admission and those with hypomagnesaemia during hospitalization, a lower mean platelet count was observed compared to the rest of the patients (189,000/μL vs 159,000/μL, p=0.001 and 194,000/μL vs 166,000/μL, p=0.0001, respectively). In the group of patients with hypomagnesaemia during hospitalization, a higher mean maximum value of D-dimers was observed (0.820 vs 1.165 ng/mL, p=0.008).

Conclusions: Hypomagnesaemia is a very common disorder in COVID-19 patients. In fact, the high frequency recorded may require thorough research to find a possible pathogenic mechanism. The relationship of magnesium levels with platelet and d-dimers levels may lead to further investigation of the increased incidence of thrombotic phenomena in these patients.

1623 / #EV0332

INCIDENCE OF HYPOKALEMIA AND HYPERKALEMIA. SERUM POTASSIUM LEVELS ARE ASSOCIATED WITH COVID-19 DISEASE SEVERITY

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Background and Aims: SARS-CoV-2 induces increased renal excretion of potassium and leads to hypokalemia.

Methods: Data were analyzed from 334 COVID-19 positive patients, hospitalized in University General Hospital of Ioannina, from 02/2020-12/2020.

Results: On admission (day 1) hypokalemia had 26 patients (7.7%) and hyperkalemia 6 (1.7%). Patients with hypokalemia had higher CK and serum troponin value than patients without (222.5 vs. 152.0 IU/L, p=0.028 and 13.8 vs. 9.2 pg/ml, p-value=0.017). On admission (day 1) hyperkalemia had 6 patients (1.7%). Patients with hyperkalemia had higher value of procalcitonin and ferritin than those without (4.95 vs 0.10 ng/ml, p=0.012 and 1222.0 Vs 433.5 ng/ml, p=0.022, respectively). During hospitalization, hypokalemia had: 75 patients (22.4%), and hyperkalemia: 23 (6.88%). In patients with hypokalemia the mean value of the PO2/FiO2 (lower value) and platelets were lower than in those without (197.5 vs 240.0, p=0.048 and 161,000 vs 176,000, p=0.007 respectively). Procalcitonin levels and d-dimers were increased in the group with hypokalemia (0.16 vs 0.09 ng/ml, p=0.02 and 1.415 vs 0.990 mg/ml, p=0.005 respectively). In patients with hyperkalemia the mean duration of hospitalization and CRP were higher (16.5 vs 11.0, p=0.001 and 130 Vs 78 mg/L, p=0.0007 respectively) as well as the mean value of procalcitonin and ferritin (0.325 vs 0.100 ng/ml, p=0.006 and 637 vs 444 ng/ml, p=0.03, respectively). In the group of hyperkalemia the mean value of PO2/FiO2 and the absolute number of lymphocytes were lower (163.5 Vs 234.0 p=0.008 and 532 vs 730, p=0.015) compared to those without hyperkalemia.

Conclusions: Potassium disorders from this sample appear to have a statistically significant relationship with COVID-19 disease severity markers.

 DOI: 10.12890/2022_V9Sup1

1800 / #EV0333

ASSOCIATION OF HYPOCHLOREMIA AND CLINICAL PROGRESSION IN COVID-19 PATIENTS

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Background and Aims: COVID-19 is a multifaceted infection with various clinical implications. The purpose of this study was to describe the frequency of hypochloremia, and seek for possible correlation with the clinical outcome.

Methods: Data of 334 patients, hospitalized in the Unit of Infectious Diseases of University Hospital of Ioannina during 02/2020-12/2020 were analyzed. Hypochloremia was defined as Cl<98 mEq/L. The comparison was made between the group of hypochloremic patients and normochloremic. The analysis of the data was conducted using Mann-Whitney U test, on R v 4.0.5.

Results: The mean age was 65.51 years, 186 (55.6%) of them male. The most common comorbidities were: arterial hypertension, diabetes mellitus and coronary artery disease. Hypochloremia at the time of admission was observed in 5 patients (1.4%) and during hospitalization in 9 (2.6%). Hypochloremic patients during admission and hospitalization, developed, on average, lower minimum platelet values (171,000 vs 115,000, p=0.050 and 170,000 vs 117,000, p=0.026) and lower PO2/FiO2 ratio (218 vs 51, p=0.001 and 226 vs 57, p=0.001). Patients with hypochloremia on admission, had a lower minimum value of lymphocytes (700 vs 500, p=0.038). Finally, hypochloremic patients required longer hospitalization (12 days vs 22 days, p=0.022).

Conclusions: Hypochloremia appears as an aggravating factor for COVID-19 patients since it is associated with worse PO2/FiO2 ratio, a key criterion for potential intubation. Moreover, the need for longer hospitalization observed in hypochloremic patients suggests the existence of a strong correlation between disease severity and chloride levels.

1999 / #EV0334

UNUSUAL COVID-19-ASSOCIATED MULTISITE ARTERIAL THROMBOSIS

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Case Description: A 55-year-old female presented with chest-pain, dry cough and vomiting. ST-segment elevation myocardial infarction (STEMI) was diagnosed. Primary angioplasty revealed trombotic occlusion of distal anterior descending artery. Transthoracic echocardiogram showed a left atrial mass suspicious of a thrombus. SARS-CoV-2 RNA testing in nasopharyngeal swab (real-time polymerase chain reaction) (RT-PCR) was negative. On 5th day of hospitalization, the patient presented with signs of left leg acute ischemia. Doppler ultrasonography (US) revealed occlusion of the internal iliac artery and thrombus on the common femoral artery bifurcation. Fogarty thrombectomy was performed and low molecular weight heparin was administered in combination with dual antiplatelet therapy. Pre-surgical SARS-CoV-2 RNA (RT-PCR) testing, requested per hospital protocol, was positive. For the next days, patient´s clinical condition worsened with respiratory failure, signs of acute ischemia of both lower limbs and thrombosis of right brachial artery. Thoracic computed angio-tomography scan showed sub-segmental arterial pulmonary embolism (PE) and multiple kidneys and splenic infarctions; there were no signs of SARS-CoV-2 pneumonia. Doppler US showed loss of flow pattern of both femoral and popliteal arteries. Urgent surgical aortic bifurcation embolectomy was performed. The patient was discharged home, after prolonged hospitalization, on therapeutic anticoagulation.

Clinical Hypothesis: Multisite arterial thrombosis due to hypercoagulable state associated to SARS-CoV-2 infection.

Diagnostic Pathways: An extensive diagnostic work-up excluded hereditary and acquired thrombophilias.

Discussion and Learning Points: This patient presented simultaneous multiple acute arterial thrombosis, resulting in STEMI, intracardiac thrombus, acute limb ischemia, PE and splenic and renal infarctions. We hypothesize that systemic inflammation and hypercoagulable state induced by SARS-CoV-2 infection underlies this condition.

DOI: 10.12890/2022_V9Sup1

1118 / #EV0335

PULMONARY THROMBOEMBOLISM IN A PATIENT WITH ASYMPTOMATIC SARS-COV-2 INFECTION

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Case Description: A 27-year-old male, with no relevant personal history, with SARS-CoV-2 infection known after a risky epidemiological context, was admitted due to a sudden onset of right pleuritic pain, with no other symptoms. Upon observation, he was hemodynamically stable, eupneic on room air with peripheral saturation of 97%, with no other alterations. D-dimers were increased (2.13 mg/dL).

Clinical Hypothesis: Pulmonary thromboembolism thrombotic complications have been described in patients with severe SARS-CoV-2 infection. Several mechanisms have been proposed, including production of inflammatory cytokines, endothelial dysfunction and formation of hyaline microemboli, in addition to the risk factors already existing in patients with severe infection, such as immobility, invasive procedures and mechanical ventilation. However, the relative risk in patients with mild or asymptomatic disease is unknown, raising controversy regarding the diagnostic and therapeutic strategies.

Diagnostic Pathways: An angio-tomography of the chest was performed, which documented segmental pulmonary thromboembolism and right lower lobe subsegmental thromboembolism with areas of pulmonary infarction. No ground glass opacification was found. An etiological study was carried out, excluding the main acquired and hereditary thrombophilias. Inpatient therapeutic anticoagulation was started with low molecular weight heparin and he was discharged with oral anticoagulant.

Discussion and Learning Points: Hypercoagulability and the resulting thrombotic phenomena have been widely recognized in patients with moderate to severe SARS-CoV-2 infection. Recently, thrombotic complications have been reported in asymptomatic patients. The authors present a rare case of pulmonary thromboembolism in a patient with asymptomatic SARS-CoV-2 infection, underlining the relevance of considering anticoagulation strategies across the entire spectrum of viral infection.

421 / #EV0336

ELEVATED LIPOPROTEIN (A) AND COVID-19

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Background and Aims: Lipoprotein (a) characteristics (similarity to plasminogen without fibrinolytic activity, proinflammatory, prothrombotic and proatherogenic features) suggest that it may have an influence on COVID-19 course. The aim of the study was to investigate whether Lp(a) ≥30mg/dl (regarded as elevated) has an impact on the course of COVID-19.

Methods: The retrospective study was conducted in the Department of Internal Diseases and Clinical Pharmacology and included data of 124 patients hospitalized due to COVID-19.

Results: 124 COVID-19 patients were divided into two groups: 1. COVID-19 patients with Lp(a) <30mg/dl regarded as not elevated n=80; 2. COVID-19 patients with Lp(a) ≥30 regarded as elevated n=44. In our results, COVID-19 patients with elevated Lp(a) level spent significantly longer time in the hospital (11 vs. 9.5 days; p=0.0362), they had more extensive radiological changes in CT scan (35 vs. 30%; p=0.0301). Elevated Lp(a) in COVID-19 patients was also associated with significantly higher OR for High Flow Nasal Oxygen Therapy (HFNOT) OR=3.48 95% CI(1.24,9.77), p=0.009. Patients with Lp(a) ≥30mg/dl were also more often intubated and transferred to the ICU - OR=4.05 95% CI (0.96,17.09) p=0.028. They also had significantly higher OR for death; OR=2.84 95% CI(0.84,9.55), p=0.046.

Conclusions: Lp(a)≥30 mg/dl may have an influence on the course of COVID-19. It may be associated with with longer hospitalization, more extensive pulmonary radiological changes and more frequent need for use of High Flow Nasal Oxygen Therapy or intubation and ICU hospitalization and death.

2295 / #EV0337

QT IN THE TREATMENT OF COVID-19. IS IT A REAL PROBLEM?

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Background and Aims: During the SARS-CoV-2 pandemic, different treatments have been proposed. The drugs with risk of prolonged QT interval are hydroxychloroquine, azithromycin and lopinavir/ritonavir.

This risk has been used to avoid home use. Although there are studies that show that each of them has an individual risk of lengthening the QT interval, there are no conclusive studies that show that such risk increases when they are associated. Our objective is to analyze whether the combination of hydroxychloroquine + azithromycin implies a real risk of QT prolongation and whether it should be a condition for starting treatment, especially at home.

Methods: We present a sample of 20 patients who have been admitted to our hospital with a diagnosis of SARS-CoV-2 pneumonia who received treatment with hydroxychloroquine + azithromycin.

We collected demographic data, calculated severity by NEWS2 scale and Risk Score QT according to the Bazzet formula. We recorded ECG on admission and at 48h.

Results: We collected 20 patients (15 men, 5 women, mean age 69

DOI: 10.12890/2022_V9Sup1

years). Eight had structural heart disease. On the NEWS-2, four had a score of 0, nine of 1, five of 2, and two of 3 (Low risk: 0-4). Treatment was not suspended in any case (in three patients the QT was shortened).
We have not found significant differences in terms of QT prolongation depending on the duration of treatment, which was five days in 16 patients and seven in 4. There were no deaths.
Conclusions: It does not seem that the risk of QT prolongation should condition this treatment.

340 / #EV0338

PULMONARY ULTRASOUND IN PATIENTS VACCINATED AGAINST SARS-COV-2 ADMITTED FOR COVID19

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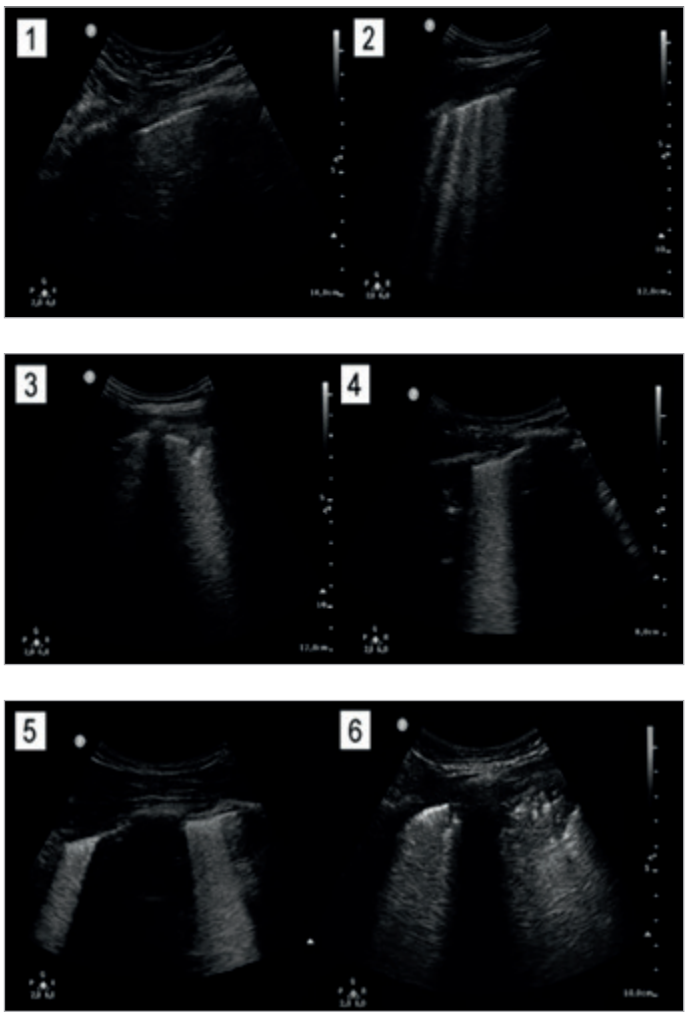
Background and Aims: Vaccination against SARS-CoV-2 has proven to be the most effective weapon in the fight against COVID19, though some patients are still being admitted to our hospitals despite having been vaccinated. Lung ultrasound has proven to be an useful prognostic tool during the pandemic, although there are few studies carried out in vaccinated patients admitted with COVID-19. Specifically, Lung Ultrasound Score (LUS) is based on a pulmonary ultrasound quantitative evaluation in 12 exploratory quadrants. Each quadrant is given a score: 0, corresponding to normal lung; 1 point, corresponding to a thickened and irregular pleuro-pulmonary line; 2 points, if coalescing B lines or small subpleural consolidations are seen; and 3 points, if large consolidations or white lung are appreciated. Finally, the sum of the points were obtained for each explored quadrant. A higher score implied a worse prognosis.
Methods: Case series of 30 patients vaccinated against SARS-CoV-2 who were admitted due to COVID-19. All of them underwent lung ultrasound in the first 24 hours after admission, describing the findings and calculating the LUS. The outcome at 14 days was also collected.
Results: 14 days after admission, 24 patients had been discharged, while six patients died or remained hospitalized. Common ultrasound findings were thickening and irregularity of pleuro-pulmonary interface, the presence of isolated or coalescing B lines (cascade sign), and subpleural consolidations.
Conclusions: Lung ultrasound findings in our patients were similar to those described for unvaccinated patients in literature. LUS upon admission of these patients was higher in those with an adverse outcome at 14 days.



#EV0338 Figure 1: Lung ultrasound findings on vaccinated patients with COVID-19 pneumonia.
1: Pleural irregularity and thickening; 2: B lines; 3: Subpleural consolidations; 4: Coalescing B lines (“cascade” sign); 5: “White” lung; 6: Big consolidation.

1073 / #EV0339

WITHIN THE “HEART” OF COVID: THE IMPACT OF PRE-EXISTING CARDIOVASCULAR DISESES IN THE COVID PATIENTS’ OUTCOME.

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Background and Aims: COVID-19 patients with pre-exiting cardiovascular disease (CVD) are at the most high-risk for virus infection and developing severe disease. Pathophysiological mechanism is characterized by the viral link to angiotensin-converting enzyme 2 and the involvement of endothelial system with the release of cytokines and direct damage of the myocardium,

 DOI: 10.12890/2022_V9Sup1

microthrombosis, and alterations of oxygen diffusion. Aim of the study is to analyze clinical course and outcome in patients with pre-existing CVD.
Methods: Analysis of clinic documentations of 1264 patients with complete data set admitted to Internal Medicine COVID Units of Ospedale dei Castelli to evaluate: 1. number of patients with CVD (Heart Failure (HF), Heart Attack (HA), Atrial Fibrillation(AF) (total/gender-related) 2. age and 3. Length of stay (LOS) (mean and gender-related).
Results: Most common CVD was Hearth Failure (117 patients), followed by association HA + HF (49), HF + AF (47), AF (43), HA (21), HF + HA + AF (19) and HA+HA (5). 100% of CVD patients underwent Non Invasive Ventilation (NIV). Overall LOS was 16,5 days. 36% of death patients had CVD. 67,4% (11,2% with CVD) were discharged at home, 43,6% (16,6% with CVD) transferred to step down care, and 9% to Intensive Care Unit.
Conclusions: Timely identification and evaluation of patients with pre-existing CVD is fundamental for adequate treatment based on the severity and state of illness and for risk reduction. Presence of one or more CVD increase LOS,costs and worse outcome. Presence of CVD is gender-related. Molecular mechanism of SARS-CoV-2 in CVD patients needs further invesigations.

1758 / #EV0340

IMPACT OF COVID-19 ON POSTGRADUATE MEDICAL EDUCATION

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Background and Aims: With the increased workload during COVID-19 pandemic, the educational aspect of residency was deprioritized. Many studies report a negative impact, namely fewer learning opportunities, modification of rotations, decrease in consultations, cancellation of educational conferences and postpone of oral examinations. Also, it was reported an important impact on the wellness and mental health. Thus, we intent to review the impact of COVID-19 on internal medicine (IM) residency.
Methods: Comparison between personal case series of IM residents from a peripherical hospital during 2019 and 2020.
Results: Overall, there was an increase in the admissions' numbers at the emergency room (ER) (44.5%) and at the IM ward (14.6%), but a decrease in consultations performed (12.2%). Also, there was a significant increase in the overtime hours worked at the ER (133.3%). We yet found there was a decrease in the number of educational conferences (17.4%), courses (31%) and presentations (65.4%). Also, in 2020, the majority of conferences was virtual.
Conclusions: The magnitude of COVID-19 impact on IM residency should not be underestimated. Our study showed a significant increase of workload, with less time available for self-study and research and less opportunities for scientific gatherings. While the immediate effects of the disruptions resulting from COVID-19 have been alluded to in this study, the lingering impact remains to be seen. Thus, further research is needed in order to understand the global impact.

1014 / #EV0341

STUDY OF CORTICOSTEROID APPLICATION DURING THE COVID-19 PANDEMIC´S FIRST WAVE ON OUR INTERNAL MEDICINE WARD

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Background and Aims: To evaluate the use of corticosteroids performed in our internal medicine ward in patients with COVID-19 infection during the pandemic's first wave.
Methods: A prospective observational study was conducted from 09/03/2020 to 02/04/2020 as part of the SEMI-COVID registry, analyzing the age and sex of the patients, the cumulative, minimum and maximum dose of corticosteroids used, the mean days of use, the days to onset of corticosteroids since admission and the number of patients with megadoses.
Results: 286 patients were registered (11 lost); 145 were selected to have received corticosteroid therapy. 68% were men and 32% women. The mean age was 69.72 (67.30-72.13) years.
We observed that the mean accumulated corticosteroid dose is 914.48 (801.021-1027.9) mg of prednisone. The minimum dose recorded is 50mg and the maximum dose is 4250mg. The mean number of days of corticosteroid use was 7.03 (5,968-8,092) days. Time from admission to initiation of therapy presented a mean of 11.49 (10.33-12.64) days, with a minimum of 0 and a maximum of 45 days. All but 1 patient received mega bolus therapy at baseline.
Conclusions: The lack of a clear guideline in the use of corticosteroids has meant that in many cases beneficial doses for the patients may have been exceeded, entering into iatrogenic terrain as is reflected in our data, with an average of close to one gram of prednisone, in some cases reaching up to 4 g. Furthermore, not all patients were treated in the same way and in some cases the therapy was delayed too long.

 DOI: 10.12890/2022_V9Sup1

1524 / #EV0342

ASSESSMENT OF COAGULATION STATUS IN PATIENTS AFTER COVID-19 WITH THROMBODYNAMICS ASSAY

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Background and Aims: Assessment of the coagulation status using different laboratory methods discovered hypercoagulation in patients with COVID-19. These trials were usually performed in the acute stage of the infection and don't disclose if these changes in hemostasis are persisted after COVID-19. The aim of our work was to study the coagulation status in patients after COVID-19 with thrombodynamics assay.

Methods: In this prospective observational study, we evaluated the coagulation status of the patients after confirmed COVID-19 hospitalized to the National Medical and Research Center for Therapy and Preventive Medicine in Moscow between April 20th and July 15th, 2021. Thrombodynamics assay was performed using a Thrombodynamics Analyzer and Thrombodynamics kit (LLC HemaCore, Moscow, Russia).

Results: A total of twenty-six patients were enrolled in our study (mean age 65,8±7,1 years, 54% men). The median of the period between confirmed COVID-19 infection and the thrombodynamics evaluation was 5 months (IQR 4-8). In 14 (53,8%) patients hypercoagulation was observed, in 10 (38,5%) patients the parameters of coagulation were in the normal ranges, and in 2 (7,7%) patients hypocoagulation was discovered. It wasn't revealed any relationship between the severity of the previous COVID-19 infection as well as the period after COVID-19 and the hemostatic status.

Conclusions: In our study, the prevalence of hypercoagulation reached 54% among patients admitted to the hospital even in the prolonged period after COVID-19 regardless of the severity of the previous infection.

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FROM THE RESPIRATORY SYNDROME TO THE THROMBOTIC SYNDROME OF COVID-19: A RARE CASE OF ACUTE LIMB ISCHEMIA

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Case Description: A 90-year-old woman with past history of hypertension, dyslipidemia and paroxysmal AF was diagnosed with COVID-19 on 22/01. On 05/02 she presented to the emergency department with dyspnea and asthenia. She was hypotensive, tachycardic with SpO2 81% in room air, with bibasal crackles and lower limb edema. The blood gas analysis presented with hypoxemia and hypocapnia, RCP was 14.74 mg/dL, NT-proBNP was 3342 pg/mL, D-Dimers was 1077 ng/mL. She was hospitalized with the diagnosis of Acute Heart Failure due to AF with RVR, and started enoxaparin in therapeutic dose.

Clinical Hypothesis: On day 1 she had signs of bad perfusion of the right foot, without palpable pedals or posterior tibial pulses. Despite the good respiratory evolution, the ischemia evolved to gangrene of 2/3 of the right leg, with rhabdomyolysis and persistent elevation of inflammatory parameters. Piperacillin+Tazobactam was started empirically and she underwent supracondylar amputation on day 13 with subsequent good clinical evolution, being discharged on day 32.

Diagnostic Pathways: COVID-19 is associated with a pro-inflammatory and pro-thrombotic state, with a documented increase of thrombotic complications in patients with COVID-19 compared to patients without COVID-19 with similar clinical severities. In addition to venous thrombosis, there are cases of arterial thrombosis in patients with COVID-19, with acute limb ischemia being a rare event.

Discussion and Learning Points: It is important to assess the risk of arterial thrombotic complications regardless of the severity of respiratory clinic. We recall the need to study effective anticoagulation regimens in preventing arterial thrombosis in patients with COVID-19.

DOI: 10.12890/2022_V9Sup1

1105 / #EV0344

OBSERVATIONAL COHORT STUDY OF PERICARDIAL INVOLVEMENT IN PATIENTS WITH SARS-COV-2 INFECTION

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Background and Aims: SARS-CoV-2 (COVID-19) infection has several clinical presentations and affects multiple organs, including heart. Mounting evidence is now supporting that COVID-19 affects cardiovascular system with acute cardiac injury, high risk of thrombosis including stroke, pulmonary embolism, and acute coronary syndrome. Conversely, very few attention has been paid to pericardial effusion. The aim of this observational cohort study was to describe characteristics of patients hospitalized for COVID-19, with pericardial involvement, in Professor Doutor Fernando Fonseca Hospital, Amadora - Portugal.

Methods: We retrospectively enrolled patients with COVID-19 admitted in the hospital between March 2020 and May 2020 who simultaneously had pericardial affection observed in imaging studies (any modality). Data was collected by a careful review of medical record.

Results: We included 202 patients that exhibited a positive PCR test and performed a thoracic or cardiac imaging exam, during hospital stay. Pericardial involvement was observed in 8.4% of patients, mainly showing presence of effusion in CT (88%) or echocardiogram (41%). Median age was 70 years and 59% were male. None of the patients developed cardiac tamponade. Laboratory exams showed a median CRP of 5.86 mg/dL and troponin of 22 ng/mL. Death occurred in 11% of patients, and was not attributed to direct complications of pericardial involvement.

Conclusions: This study suggests a high prevalence of COVID19-associated pericardial affection. Further studies are needed to understand clinical implications and long-term evolution of these abnormalities in COVID-19 patients.

1843 / #EV0345

RACE, ETHNICITY AND OUTCOME IN COVID-19 HOSPITALIZATION IN SPAIN. (SEMI-COVID-19 REGISTRY)

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Background and Aims: This work aims to analyze the differences of adverse outcomes (in hospital mortality, admission in intensive care unit (ICU) and use of invasive mechanical ventilation (IMV) according race and in Spain

Methods: This is a cross-sectional analysis within a retrospective cohort of hospitalized patients with confirmed COVID-19 admitted to 150 Spanish hospitals (SEMI-COVID-19 Registry) from March 1, 2020 to April 30, 2021. The endpoint of the study was in hospital mortality, ICU and IMV. The endpoint were adjusted by age, gender and Charlson comorbidity index.

Results: Of the 22,953 patients hospitalized with COVID-19, 20,599 (89.7%) were white, 1,829 (7.9%) Latinx, 124 (0.5%) African black, 110 (0.5%) Asian, and 281 (1.2%) other. The percentage of man were higher in African (61.3%) and Asian (66.4%) than White (57.4%) and lower in Latinx (53.9%). The mean age, and CCI were higher in white (69.5 years and 1.4) and the other races. The mortality was higher in white (21.6%) than Lain (7.1%), Africa back (3.2%) and Asian (19.9%), after adjusted the mortality was similar in all races. The admission in ICU was less in white (9.1%) than Latinx (13.0%), African black (10.5%) and Asian (14.5%), after adjusted the admission in ICU was similar in all race.

Conclusions: Although age, gender, morbidity, mortality, ICU admission and IMV differed with race and ethnicity, mortality, ICU admission and IMV after adjusting for age and gender were similar across all breeds evaluated.

 DOI: 10.12890/2022_V9Sup1

1452 / #EV0346

LEG ARTERIAL THROMBOSIS, TRANSIENT ISCHEMIC ATTACK AND PULMONARY THROMBOEMBOLISM, THE CASE OF TRIPLE THROMBOSIS AFTER 14 DAYS OF JANSSEN-COVID19 VACCINE.

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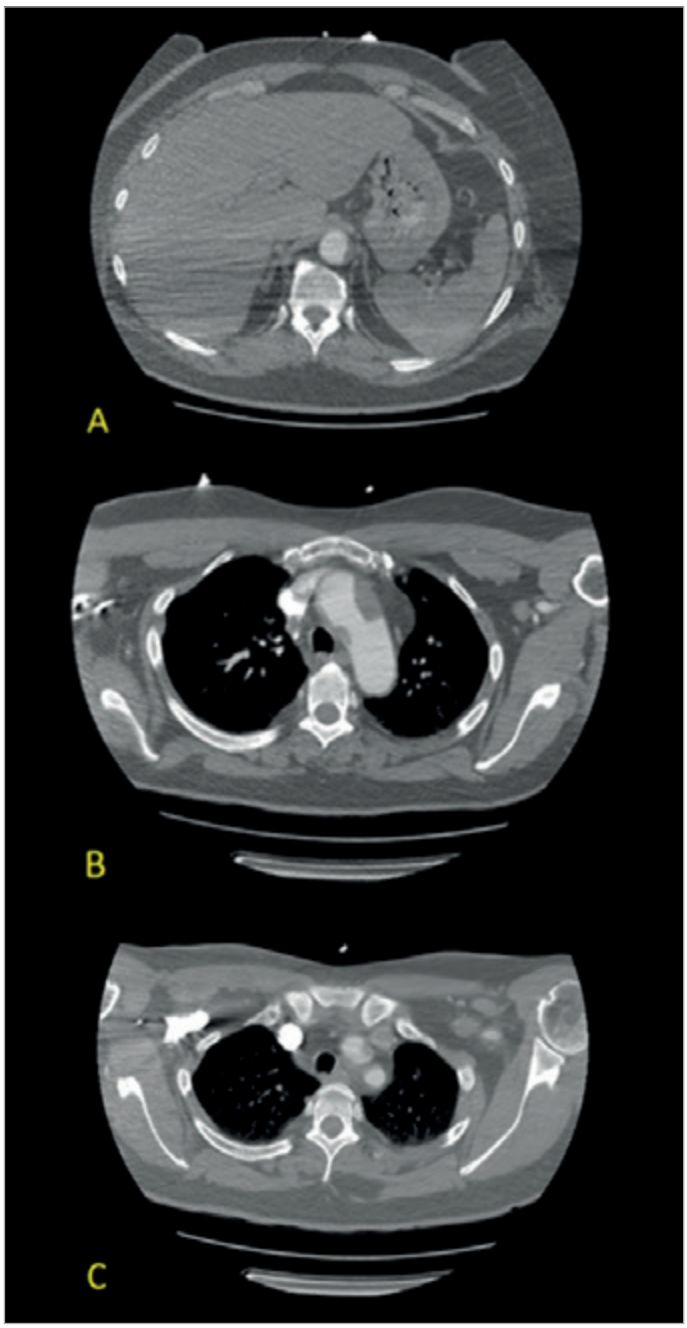
Case Description: We present the case of 53-year-old caucasian woman, smoker, with medical history of arterial hypertension and with no previous history of thrombosis, thrombophilia disease or use of oral contraceptive medication. On August 24th, after receiving the J&J COVID-19-vaccine, was diagnosed with arterial ischemia of the right-leg. Few days later suffered a transient ischemic attack and the urgent CT angiography scan showed an acute thrombus of the aortic arch extending into the emergence of the left common carotid artery and an occlusion of the left cerebral artery. Later, the patient presented respiratory worsening and pulmonary thromboembolism was diagnosed.

Clinical Hypothesis: In summary, we have a woman, vaccinated against COVID-19 with Jcovden, who presented three thrombotic events and intense thrombopenia, being under treatment with sodium heparin. This opens up the differential diagnosis between thrombosis with thrombocytopenia syndrome induced by adenoviral vaccines (TTS) and heparin-induced thrombopenia (HIT). Anti-PF4 antibodies detected by ELISA were positive, which was compatible with TTS.

Diagnostic Pathways: See Table 1.

Discussion and Learning Points: One of the most adverse events regarding SARS-CoV-2 vaccination is the conjunction of thrombocytopenia and abnormal clotting, which led to the description of TTS in April 2021 by the American Society of Hematology. So we have to be aware of its screening in patients who have been vaccinated with adenoviral vaccines 4-42 days ago and present symptoms compatible with TTS. If TTS is suspected, a complete diagnostic work-up for TTS should be performed: blood test with platelet count, D-dimer and fibrinogen, imaging test based on the patient's symptoms and PF4-ELISA (HIT assay).



#EV0346 Figure 1.

HEMOSTÀSIA
(Dra. N. Vilalta / Dr. J. Mateo)

ANTI-PF4-heparina confirmatori	Negatiu
Anticossos antiplaquetaris PF4	Positiu
ELISA	

Negatiu per quimioluminiscència i positiu per ELISA.

#EV0346 Figure 2.

DOI: 10.12890/2022_V9Sup1

	Case presentation
1) Covid vaccine 4-42 days prior to symptom onset	Vaccinated 14 days before the first event
2) Any venous or arterial thrombosis	2 Arterial thrombosis and one venous
3) Platelet count < 150 x 10^9/L	On first admission, 40,000 × 109/L platelets
4) Positive PF4 ELISA	Yes
5) Markedly elevated D-Dimer	67.062 ng/mL

#EV0346 Table 1: Thrombosis with Thrombocytopenia Syndrome (TTS). Definitive diagnosis must meet all five criteria. American Society of Hematology. Comparison with our case presentation.

2537 / #EV0347

EVALUATION OF THE EFFECT OF THE STEROID WINDOW AND HOSPITAL TREATMENT WITH BARICITINIB AND STEROIDS ON HOSPITAL STAY AND SURVIVAL OF HOSPITALIZED PATIENTS WITH COVID-19

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Background and Aims: By 7 March 2022, COVID-19 has left a total of 6 million deaths worldwide. Up to 20% of patients may progress to a severe state characterized by a hyperinflammatory response caused by cytokine storm and acute respiratory distress syndrome. Steroids are the standard treatment for reducing inflammation, which can be combined with potent selective JAK1/2 inhibitors such as baricitinib that block cytokine intracellular signaling. Objective. To evaluate the effect of the steroid window and hospital treatment with baricitinib and steroids on hospital stay and survival in hospitalized patients with COVID-19.

Methods: Three study groups were included, 15 patients with steroid window prior to hospitalization and hospital treatment of baricitinib (4 mg/day/14 days) and steroids (VE+B+E), 15 patients only with baricitinib and steroids (B+E) and 19 patients with steroid window and steroids (VE+E), analyzing survival at day 12 and mean hospital stay.

Results: An 83% survival rate was obtained in the VE+B+E group in contrast to 53% in the B+E group and 68% in the VE+E group, although no significant differences were found. In hospital stay, the VE+B+E group presented a higher average of 15.6 days compared to 7.6 days in the B+E group and 10.38 days in the VE+E group, with significant differences recorded (p= 0.02).

Conclusions: The application of steroid window and hospital treatment with steroids seem to be the most suitable alternative to increase survival, although with a longer period of hospital stay compared to baricitinb that showed no clinical benefit.

2596 / #EV0348

EVALUATION OF THE EFFECT OF THE STEROID WINDOW AND HOSPITAL TREATMENT WITH BARICITINIB AND STEROIDS ON HOSPITAL STAY AND SURVIVAL OF HOSPITALIZED PATIENTS WITH COVID-19

Kevin Javier Arellano Arteaga[1], Elvira Miramontes Luna[1], Francisco Renteria[2], Cristian Oswaldo Hernandez Ramirez[2], Juan Francisco Toral Castellanos[1], Valeria Chavez Estrada[1], Alejandra Natali Vega Magaña[2], Jose Francisco Muñoz Valle[2]

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Background and Aims: Up to 20% of patients with COVID-19 may progress to a severe state characterized by a hyperinflammatory response caused by a cytokine storm and acute respiratory distress syndrome (ARDS). Steroids are the standard treatment for reducing inflammation, which can be combined with potent selective JAK1/2 inhibitors (baricitinib) that block cytokines intracellular signaling. However, there is little information about the clinical benefit of the steroid window and the combined treatment of steroids and baricitinib in severe COVID-19 cases. Obj.Evaluate the effect of the steroid window and hospital treatment with baricitinib and steroids on hospital stay and survival in hospitalized patients with COVID-19.

Methods: Three study groups were included, 15 patients with steroid window prior to hospitalization and hospital treatment of baricitinib (4 mg/day/14 days) and steroids (VE+B+E), 15 patients treated only with baricitinib and steroids (B+E) and 19 patients treated with steroid window and steroids (VE+E), analyzing survival at day 12 (Kaplan-Meier) and mean hospital stay (U Mann-Whitney)

Results: An 83% survival rate was obtained in the VE+B+E group in contrast to 53% in the B+E group and 68% in the VE+E group, although no significant differences were found. In hospital stay, the VE+B+E group presented a higher average of 15.6 days compared to 7.6 days in the B+E group and 10.38 days in the VE+E group (p= 0.02)

Conclusions: Steroid window and hospital treatment with steroids seem to be the most suitable alternative to increase survival, although with a longer period of hospital stay compared to baricitinb that showed no clinical benefit.

 DOI: 10.12890/2022_V9Sup1

2264 / #EV0349

RELATION OF THE D-DIMER WITH THE VENOUS THROMBOEMBOLIC DISEASE AND THE MORTALITY IN PATIENTS PRESENTING SARS-COV-2 INFECTION

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Background and Aims: To describe the coagulation alterations that can lead to the appearing of venous thromboembolic disease and its relation with the mortality in patients with COVID-19.
Methods: Observational, retrospective and single-center study with 484 patients undergoing COVID-19 confirmed with PCR test, antigen test and/or SARS-CoV-2 serology hospitalized at Internal Medicine in the Hospital Reina Sofia between March 2020 and February 2021, which were also included in the Spanish Society of Internal Medicine's COVID-19 Registry. We registered the basal characteristics, clinical and analytical severity criteria at the entry, venous thromboembolic events (VTE) and deaths during the hospitalization and after it. Furthermore, we did a survival analysis attending to the D-dimer levels, stablishing 1500 ng/mL as cut-off point.
Results: 484 patients, mean age 78.14±9.2 years old, were treated with low molecular weight heparine (LMWH) during the hospitalization (63.3% profilactical, 16.8% medium and 13.5% therapeutic doses), while 0.8% of the patients were anticoagulated with vitamin K antagonists (VKA) and 2.5% with direct-acting oral anticoagulants (DOACs). There were no differences in the VTE development according to the D-dimer level at the entry (p=0.25). However, we observed differences in the mortality of the patients: patients with a D-dimer level >1500 ng/dL had less survivance (p<0.01). It was analyzed the possible relation between the thrombosis and the worse prognosis factors and the relation between the inflammation parameters in the group of patients with VTE, with no significative statistical differences.
Conclusions: The D-dimer at the hospitalization can be considered a mortality predictor risk factor in patients with COVID-19.

2263 / #EV0350

CHARACTERISTICS AND OUTCOMES OF PATIENTS WITH TYPE 2 DIABETES MELLITUS TREATED WITH LINAGLIPTIN DURING ADMISSION FOR COVID-19

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Background and Aims: Recent evidence supports the use of i-DPP4 for the hospital management of patients with T2DM. This descriptive study analyzes the outcomes of diabetics inpatients with SARS-Cov2 infection comparing treatment with linagliptin versus linagliptin with insulin.
Methods: A sample of inpatients with SARS-COV2 infection from October 2020 to March 2021 was retrospectively analyzed. Those patients with intrahospital use of linagliptin in monotherapy or combined with insulin were selected, according to the recommendations of our hospital protocol for T2DM.
Results: A total of 86 patients were studied. Patients using linagliptin (26) as monotherapy had better glycemic control prior to admission compared to patients who required linagliptin and insulin therapy (60). Regarding complications, a lower rate of hyperglycemia (69% vs. 88%), hypoglycemia (7.7% vs. 13.3%) and treatment failures (34.6% vs. 66.6%) were observed in patients receiving monotherapy. Simultaneously, the mortality data were better in this first group (26.6% vs. 38.4%) as well as the percentage of patients who required admission to the ICU (7.7% vs. 13.33%) or in a subintensive respiratory care unit (3.8% vs. 16.66%).
Conclusions: Linagliptin is a simple and safe option in diabetic inpatients with SARS-Cov-2 infection with mild to moderate hyperglycemia. In our population, we found a lower rate of complications in patients using linagliptin versus linagliptin and insulin.

1103 / #EV0351

SEVERE COVID-19… GOOD OUTCOME AFTER ALL. THERE'S HOPE!

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Case Description: In critically ill coronavirus disease 2019 (COVID-19) patients pulmonary vascular endothelialitis and distal pulmonary embolism or thrombosis were reported, which may difficult antibiotic penetration in the lung parenchyma and thus promoting lung abscess formation. We report a case of ventilator-associated pneumonia (VAP) complicated of lung abscess in a patient with critically ill COVID-19. A 39-year-old man with a history of smoking (20 pack years), irrelevant past medical history and no medication presents to the emergency room with dyspnea. He was diagnosed with COVID-19 6 days earlier.

DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: Chest CT scan showed ground glass, patchy pleural-based consolidations of lung parenchyma involving about 75% of it. His clinical condition worsen with acute respiratory failure (PaO2/FiO2 78) and he was admitted to the intensive care unit. He required invasive mechanical ventilation and extracorporeal membrane oxygenation. Several complications were reported, included massive pulmonary embolism, bilateral femoral veins thrombosis and methicillin-susceptible Staphylococcus aureus ventilator-associated pneumonia (VAP) complicated of lung abscess. The patient was treated with linezolide (21 days) and rifampin (11 days).

Diagnostic Pathways: A clinical improvement of lung abscess after the administration of antibiotics was reported and he was discharged from the hospital with no oxygen support 3 months later.

Discussion and Learning Points: Despite being a severe case of COVID-19 with several associated complications, a total recovery was achieved and in a 3 months follow up appointment he reported no symptoms and the chest CT showed remarkable improvement with no abscesses. Even though COVID-19 is causing a huge impact on healthcare systems, there are still rewarding cases of success.

1455 / #EV0352

SARS-COV-2 VACCINE–INDUCED IMMUNE THROMBOTIC THROMBOCYTOPENIA (VITT): A CASE REPORT

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[2]Centro Hospitalar Universitário do Porto, Imunoalergologia, Porto, Portugal

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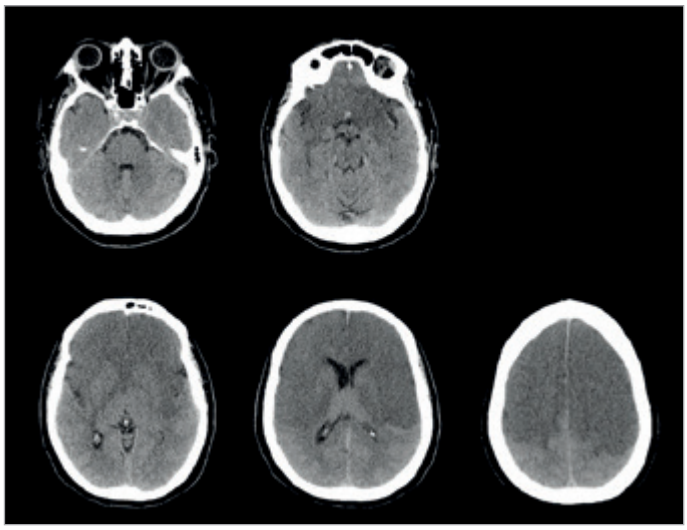
Case Description: We report a case of a 68-year-old woman with hypothyroidism (treated with levotiroxin). She was admitted to the emergency room after being found comatose at home. Two days earlier she complained of malaise and vomiting. She was imunized with COVID-19 vaccine ten days before. On examination, O2V1M3 (Glasgow Coma Scale), hypertensive, left gaze deviation, indifferent plantar reflex and signs of poor peripheral perfusion.

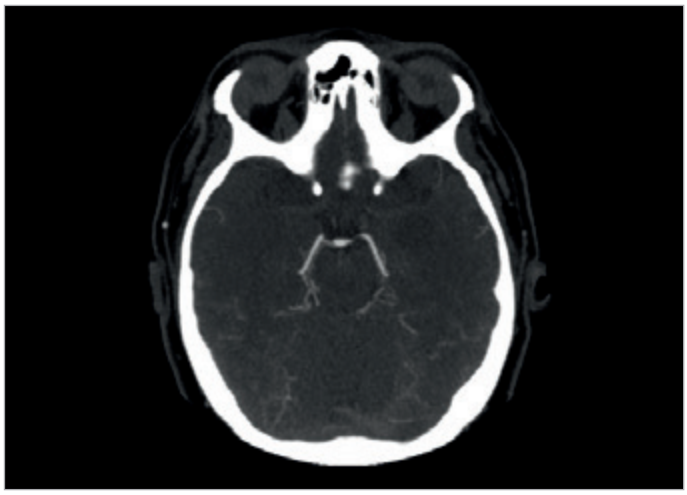
Clinical Hypothesis: The coma was the main feature in this case. We first need to rule out an hemorrhagic or an ischemic stroke. We also need to keep in mind drug abuse, metabolic disturbances, infections and, less likely in this case, an cardiac event.

Diagnostic Pathways: Arterial gasometry was normal and no drugs found on the urine analysis. EKG had sinus rhythm. Brain CT reavealed bilateral occlusion of carotid arteries with bilateral cerebral infarction. The hemogram showed thrombocytopenia 19,000 (normal platelet count previously). D-dimers were high (34,000 ng/ml); fibrinogen, prothrombin time and activated partial thromboplastin time were normal. Anti-PF4/heparin antibodies were positive. SARS-CoV-2 RT-PCR was negative.

Discussion and Learning Points: Given the already established infarction, with absence of bilateral anterior circulation, there was no benefit with any acute intervention. The patient had poor short-term vital prognosis. After the work-up, we assumed the diagnosis of Vaccine-Induced Immune Thrombotic Thrombocytopenia. We reported it to the National Authority of Medicines and Health Products, I.P. So far, there are few cases reported but the mortality rate is high (20%). The presentation ad initio could be inespecific (malaise, myalgias, fever, gastrointestinal symptons) so this entity keep unnoticed at the begining.

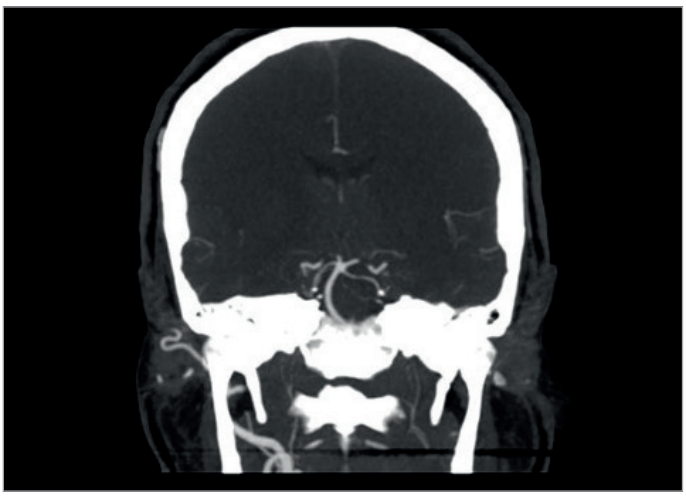


#EV0352 Figure 1: CT, acial sections, from the base of the skull to the high convexity. Recent frontal-temporo-parietal cortico-subcortical and deep ischemic lesions with striato-capsular and insula involvement (bilateral carotid territory).

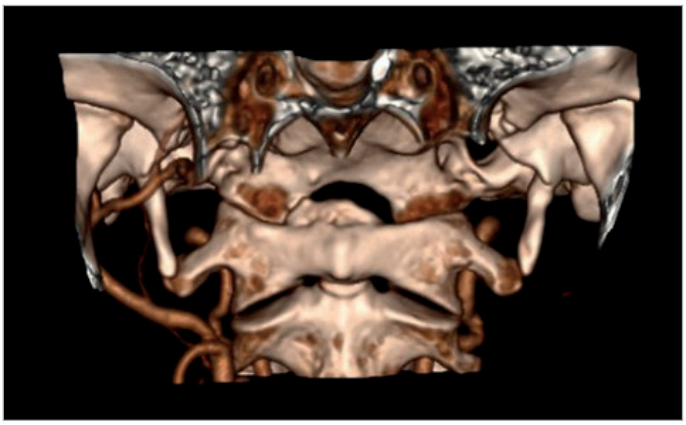


#EV0352 Figure 2: CT angiography of the cerebral arteries, axial sections. Absence of filling of the middle and anterior cerebral arteries (in contrast to the normal filling of the VB circulation).

 DOI: 10.12890/2022_V9Sup1



#EV0352 Figure 3: CT angiography of the cerebral arteries, coronal sections



#EV0352 Figure 4: 3D MIP reconstruction.
Absence of filling the right and left ICA, with absence of filling the branches of the left ECA (occlusion of the right ICA and left ACC). Normal filling of vertebral arteries and distal VB circulation.

2235 / #EV0353

EVALUATION OF RENAL FUNCTION AND MORTALITY AMONG PATIENTS ADMITTED WITH COVID-19

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Background and Aims: Renal failure (RF) is a mortality predictor in different COVID-19 cohorts. Our aim was to evaluate RF incidence and mortality according to glomerular filtrate rate (GFR) in COVID-19 hospitalised patients admitted to Internal Medicine on Reina Sofía University Hospital (RSUH).
Methods: A descriptive and retrospective study that included 484 COVID-19 patients admitted in RUSH between March 2020 and April 2021. We calculated GFR according to the MDRD equation and divided the patients in three group; <30 mL/min, between 30-60 mL/min and >60 mL/min at the hospital admission and after seven days of hospitalisation (A7DH). We used a Cox regression to analysed global mortality at both different times. Afterwards, the patients were divided according to previous diagnosis of mild-severe chronic renal failure (CRF) and patients with normal renal function (NRF).
Results: Patients with GFR <30mL/min and GFR 30-60mL/min had greater mortality than those with GFR>60 mL/min (p<0.001) (HR 3.81; CI95% 2.46-5.89) and (HR 1.8; CI95% 1.22-2.67) at admission and (p<0.001) (HR 4,61; CI95% 2.95-7.19) y (HR 2.84) CI95% 1.88-4.3) at A7DH respectively. Same results were found in patients with previous NRF. There were not differences on RCF patients.
Conclusions: Our study suggest that those patients with GFR <60 mL/min at the admission and A7DH have a greater COVID-19 mortality than those who have normal GFR. This was seen either in patients with CRF or NRF.

2461 / #EV0354

EVALUATION OF HYPERTENSION AS A CARDIOVASCULAR RISK FACTOR IN THE COVID-19 COHORT ON REINA SOFIA UNIVERSITARY HOSPITAL

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Background and Aims: To evaluate the hypertension prevalence and antihypertensive domiciliary treatment in COVID-19 hospitalised patients on the Internal Medicine service in Reina Sofia University Hospital (RSUH) and its implication in the evolution of the disease.
Methods: A cohort, descriptive and retrospective study that included 118 COVD-19 hospitalised in RSUH during March-May of 2020. The patients were classified depending on the previous diagnose of hypertension or not. We analysed different clinical and demographic aspects, complications and mortality.
Results: A 78% of our patients had a hypertension diagnosis. These patients presented higher prevalence of comorbidities (p=0.008), type 2 diabetes (p=0.006), higher levels or creatinine (p<0.001), urea (p=0.02) and glomerular filtration rate (p=0.01) comparing with no hypertension patients. We also observed more use of ACE inhibitors or angiotensin II receptor antagonist as a treatment in patients with hypertension than other kind of treatment (p<0.001). We did not obtain differences on symptoms, radiology

 DOI: 10.12890/2022_V9Sup1

signs, evolution, developing acute respiratory distress syndrome, mortality or admission in intensive care units in both groups.
Conclusions: Despite of the high hypertension prevalence in our cohort we did not found differences regarding the disease prognosis, complications or mortality. We detected worse renal function and relation to comorbidities in hypertension patients. We also did not obtain differences between the different antihypertensive treatments on survival or mortality in COVID-19 in our cohort.

1106 / #EV0355

FATALITY RATE OF COVID-19-ASSOCIATED THROMBOSIS AND MORTALITY PREDICTORS

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Background and Aims: Aim is to assess the fatality rate of COVID-19-associated thrombosis at Valme University Hospital (Seville, Spain), as well as mortality predictors due to this event.
Methods: Retrospective case series (March 2020-April 2021). Inclusion criteria: 1) Patients admitted to Internal Medicine ward of our hospital with a laboratory diagnosis of COVID-19 on admission or in the previous 30 days; 2) Being at least one venous or arterial thrombosis during hospitalization. Factors associated with mortality were analysed.
Results: During the study period, 43 COVID-19 patients developed a thrombotic event. The most frequent was pulmonary thromboembolism (35%). 21 (49%) patients had been receiving low molecular weight heparin, regardless of the dose. 37 (86%) patients needed oxygen therapy during hospitalization, of which 10 (27%) required invasive mechanical ventilation (IMV). 23 (53.5%) patients died during hospitalization; median (Q1-Q3) age in this subgroup: 76 (69-83) years. 17/22 diabetes mellitus patients died, whereas this occurred in 6/21 non-diabetic (p=0.001). Likewise, 10/11 patients with high-flow oxygen therapy and/or IMV died, whereas this occurred in 13/32 with lower oxygen requirements (p=0.004). After a multivariate analysis, independent predictors of mortality: age, diabetes, C-reactive protein (CRP) value at admission and the need for high-flow oxygen therapy and/or IMV.
Conclusions: COVID-19-associated thrombosis increases the morbimortality of these patients, with a fatality rate greater than 50% in our study. Clinical factors such as age, diabetes or CRP value at admission could help us to identify those patients with a greater risk of death. However, we have not been able to ascertain treatment regimens associated with lower mortality.

1176 / #EV0356

ANTICOAGULATION IN A PATIENT WITH SARS-COV-2: A CASE REPORT.

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Case Description: A 49-year-old man with no relevant history admitted for severe bilateral COVID-19 pneumonia. Due to progressive respiratory failure despite treatment he was transfered to the ICU, where he required ventilation with high-flow oxygen therapy. A few days after, he continued his recovery in conventional ward, where he presented paroxysmal atrial fibrillation with preserved ventricular response, deciding to anticoagulate with enoxaparin and adding amiodarone, reverting to sinus rhythm after 48 hours. However, he required withdrawal of anticoagulation due to hemoptysis and bleeding from puncture sites. He was discharged and evaluated in the outpatient department, where it was found that atrial fibrillation persisted, so anticoagulation was reintroduced with a direct oral anticoagulant. On this occasion, there were no incidents and the treatment could be maintained.
Clinical Hypothesis: Atrial fibrillation precipitated by SARS-CoV-2 infection, not anticoagulated due to bleeding complications.
Diagnostic Pathways: Serious infections can precipitate atrial arrhythmias and it is essential to diagnose them in time and rhythm control, if possible.
Discussion and Learning Points: Pathogenesis of hypercoagulability secondary to SARS-CoV-2 is not yet fully understood, but several factors have been shown to be involved: endothelial damage, blood stasis, hypercoagulant state and coagulation disorders. Recent studies have shown that there is a very high incidence of hyperviscosity in critically ill patients, with direct correlation between D-dimer levels and the severity of the disease. Bleeding is not usually found among the main manifestations of the infection, with similar approach to non-covid patients. In summary, SARS-CoV-2 is a complex disease that is related to an increase in prothrombotic phenomena, and it is essential to assess risk-benefit when introducing anticoagulant treatment.

1232 / #EV0357

PNEUMOTHORAX IN ADMITTED COVID-19 PATIENTS

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Background and Aims: The spectrum of respiratory involvement of COVID-19 is wide, with pneumothorax being an infrequent complication. AIM: To assess the incidence and characteristics

 DOI: 10.12890/2022_V9Sup1

of admitted patients because of COVID-19 who developed pneumothorax during hospitalization.
Methods: Observational cohort study (March-2020 to April-2021) of patients admitted at Internal Medicine of Valme University Hospital who developed pneumothorax during hospitalization. Diagnosis was made by conventional radiography or computed axial tomography.
Results: 7 patients were included (4 women, 57%), of whom 5 (71%) presented spontaneous pneumothorax and 2 (29%) related invasive mechanical ventilation pneumothorax. Cumulative incidence was 0.8%. Median (Q1-Q3) age was 76 years (75-81). Prevalence of smoking and respiratory disease history was 57% and 29%, respectively. Arterial hypertension was the most frequent comorbidity (71%). 5 patients (71%) presented unilateral pneumothorax versus 2 (28.6%) who developed bilateral pneumothorax, with only 1 case (14%) of tension pneumothorax. The average time to event was 15 days from admission. Laboratory values expressed as median (Q1-Q3): ferritin 894 µg/l (276-1826), C-reactive protein 120mg/l (72-166), lactate dehydrogenase 267U/l (243-465), erythrocyte sedimentation rate 102 mm/h (7-120) and lymphocytes 890x10^3/l (290-1130). All patients were treated with steroids and three (43%) with anakinra. Pleural drainage was required in five patients (71%). Mortality and/or ICU admission were 57% (4 patients). No mortality significant differences were found in any of the variables analyzed.
Conclusions: Mortality rate of COVID-19-associated pneumothorax is high even though an appropriated treatment. Despite there are not many cohort studies about COVID-19-associated pneumothorax, the incidence of events in our study resembles that described in others.

1240 / #EV0358

CLINICAL FEATURES OF COVID-19-ASSOCIATED THROMBOSIS PATIENTS

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Background and Aims: Hypercoagulable state of COVID-19 promotes the development of arterial and venous thrombotic events, increasing morbimortality. AIM: to assess the characteristics of patients admitted because of COVID-19 with thrombotic events.
Methods: Observational cohort study (March-2020 to April-2021) of patients admitted at Internal Medicine ward of Valme University Hospital (Seville, Spain) because of COVID-19, with at least one venous or arterial thrombotic event during hospitalization.
Results: 43 patients (49% women) developed at least one thrombotic event (cumulative incidence 5%). Median age (Q1-Q3): 74 (67-82) years. The most frequent event was pulmonary thromboembolism (PTE) (35%), followed by myocardial infarction (33%). The average time to event from admission was 4 days. The prevalence of a second thrombotic event was 9%. Laboratory values at admission, expressed as median (Q1-Q3): creatinine 1.05 mg/dl (0.79-1.53), C-reactive protein 103 mg/l (48-154), lactate dehydrogenase 333 U/l (253-570), D-dimer 2,345 ng/ml (735-17,098), lymphocytes 1,080 µl (610-1510). Last D-dimer value prior to the event: 3680 ng/ml (1930-16765). Treatment received prior to the thrombotic event: corticosteroid (44%), immunomodulatory treatment (23%), antiplatelet treatment (19%), treatment with low molecular weight heparin (LMWH) at any dose (38%), antiplatelet treatment and LMWH at any dose (12%); 30% of patients were not receiving any antithrombotic treatment. Thirty percent were admitted to the ICU. Among patients included in our study mortality rate was 53.5% whereas global mortality among patients admitted for COVID-19 during the study period was 27%.
Conclusions: Mortality is increased in COVID-19 patients with thrombotic events. PTE was the most frequent event in line with other published series, but our global incidence is lower.

721 / #EV0359

HEMOPHAGOCYTIC SYNDROME TRIGGERED BY COVID-19 SUPER-INFECTION IN A YOUNG PATIENT WITH SURGICAL TRAUMA INFECTION

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Case Description: A 19-year-old caucasian male was admitted to our COVID-19 Unit with SARS-CoV-2 infection after a long hospitalization as a result of complete dissection of left superficial femoral artery and left lower extremity compartment syndrome. He also suffered from severe necrotizing soft tissue infection with concurrent osteomyelitis of the left tibia due to multi-drug-resistant *Acinetobacter baumannii* and *Pseudomonas aeruginosa*. Ten days after initial diagnosis of COVID-19, the patient developed deterioration of fever without any clinical or imaging signs of lower respiratory tract involvement, and progressively deteriorating anemia and leukopenia, while he had increased laboratory values of serum ferritin, C-reactive protein, lactate dehydrogenase and triglycerides.
Clinical Hypothesis: Expansion of initial site infection and hemophagocytic syndrome were suspected.
Diagnostic Pathways: Surgical debridement and computed tomography (CT) scan did not reveal signs of new or expanding infection nor the tissue cultures revealed new bacterial pathogens. Bone marrow aspiration revealed hemophagocytosis of red blood cells and platelets. The patient received immunosuppressive treatment with Intravenous Immunoglobulin, tocilizumab -a monoclonal antibody against Interleukin-6 receptor- and intravenous high-dose dexamethasone, with subsequent improvement of his clinical condition and laboratory parameters.
Discussion and Learning Points: Hemophagocytic syndrome is

 DOI: 10.12890/2022_V9Sup1

a rare life-threatening disease characterized by overwhelming inflammatory response triggered by infection, malignancy, autoimmunity or trauma. There are some reports of secondary hemophagocytic syndrome associated with severe COVID-19 in the literature. In our case, the most probable trigger of hemophagocytic syndrome was the combination of COVID-19 infection and surgical trauma infection, since COVID-19 infection itself was not severe.

1930 / #EV0360

A SURGE IN C. DIFFICILE COLITIS CASES IN A COVID-19 UNIT: THE CHALLENGES OF INFECTION CONTROL AND ANTIMICROBIAL STEWARDSHIP IN THE COVID-19 ERA

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Background and Aims: *Clostridioides difficile* infection (CDI) is a severe gastrointestinal infection, commonly affecting patients with advanced age, previous antibiotic exposure and long length of stay in healthcare settings. Due to easy transmission of the microorganism, contact precautions are highly important to prevent transmission. Multiple studies have raised concerns of an increase in the incidence of CDI during COVID-19 pandemic. This study aims to describe a local outbreak of *C. difficile* colitis in a COVID-19 unit.
Methods: We collected and analyzed data from a cluster of four patients, who were diagnosed with CDI during their hospitalization in a COVID-19 unit. The diagnosis was made by the local microbiology laboratory with positive glutamate dehydrogenase (GDH) test, followed by positive enzyme immunoassay (EIA) test to confirm the presence of toxins.
Results: The first patient was a nursing home resident, who was symptomatic on admission (fever and diarrhea) and was subsequently diagnosed with CDI on day 2. She was immediately isolated, but the patient who was initially hospitalized in the same room, was also infected. Further patient cohorting took place to prevent spread. Finally, two more patients were diagnosed with CDI, without having any close contact with a confirmed case, possibly due to contact with healthcare personnel who have touched a contaminated surface or item.
Conclusions: Changes in infection prevention and control practices, as well as antibiotics prescribing during COVID-19 pandemic, have potentially contributed to the forementioned spread of toxigenic *C. difficile*. Our study emphasizes the importance of infection control and antimicrobial stewardship programs for improvement in patient care.

806 / #EV0361

EFFECT OF IMMIGRANT ORIGIN ON MORTALITY IN COVID-19 PNEUMONIA

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Background and Aims: Since the beginning of the pandemic, a number of comorbidities associated with a worse prognosis in SARS-CoV-2 infection have been identified. Preliminary studies show a higher prevalence and higher mortality in specific geographical areas (generally developing areas) associated with the same ethnicity or race. This study aims to analyse the effect of immigrant origin on mortality in COVID-19 pneumonia.
Methods: We performed a retrospective observational cohort study about the effect of immigrant origin on mortality according to the WHO ordinal scale on day 28 after admission, in 1132 patients admitted with SARS-CoV-2 pneumonia and baseline SpO2 < 94%, from March to September 2020 at a second level hospital. Analysis has been performed by binary logistic regression and adjusted for propensity score matching.
Results: Of the 1131 patients, 62,2% are men, the median age was 68 years with comorbidities (54.0% hypertensive, 24.1% diabetic, 17.7% heart disease, 22.9% chronic lung disease and 23.0% are oncohaematological), median initial SpO2FiO2 429. There were 160 (14.1%) patients of immigrant origin and 971 (85.9%) of non-immigrant origin. A total of 14 (8.8%) immigrants and 245 (27.3%) non-immigrants died. The analysis adjusted for the confounding variables age, hypertension, diabetes, dyslipemia, heart disease, atrial fibrillation, pneumopathy, neoplasia, neurological disease, among others comorbidities no higher mortality was observed in immigrants (OR 1.42; 95% CI 0.61 to 3.30; p=0.416).
Conclusions: In this observational study, no differences were found in mortality in SARS-CoV-2 pneumonia, depending on the origin of the patient. Other observational studies are needed to study this aspect.

1676 / #EV0362

BRADYCARDIA AS A MANIFESTATION OF COVID-19 INFECTION

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Background and Aims: Cardiac manifestations of infection by SARS-CoV-2 (COVID-19) such as acute cardiac injury or arrythmias have been reported in literature. However, several

 DOI: 10.12890/2022_V9Sup1

reported cases of transient sinus bradycardia still have no known cause. This 6-month study focuses on patients hospitalized due to COVID-19 respiratory infection who developed transient sinus bradycardia.
Methods: A retrospective cohort study between July and December of 2020 including hospitalized patients diagnosed with COVID-19 respiratory infection and sinus bradycardia in an Internal Medicine Department.
Results: 14 patients (64.3% male and 35.7% female; mean age 47.6 years) were hospitalized due to COVID-19 respiratory infection with mild symptoms which included shortness of breath and cough. Only 21.4% (n=3) had known medical history of asthma. The remaining patients had no known medical history. No patient had ambulatory medication. During hospitalization all developed asymptomatic transient sinus bradycardia (heart rate between 49-60 bpm). High-sensitivity troponin was slightly elevated in 35.7% of the patients (n=5) with no changes in electrocardiogram and normalized during the first 5 days of hospitalization. Echocardiography showed no alterations in any patients and 85.7% (n=12) maintained sinus bradycardia throughout the hospitalization. Reevaluation one month later showed that none of these patients had sinus bradycardia.
Conclusions: Cardiac manifestations of COVID-19 have been reported but transient sinus bradycardia is still not well established. COVID-19 infection appears to induce transient sinus bradycardia and its etiology may be multifactorial (damage from inflammatory cytokines, hypoxia or medication). These cases must be monitored closely after being discharged as the risk for arrythmias in these particular patients is still unknown.

2101 / #EV0363

HOSPITAL CO-MANAGEMENT IN THE COVID19 ERA

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Background and Aims: We define comanagement to mean the shared medical responsibilities and authority over the management of the patient between doctors across two or more specialities. The objective of this study is to assess the comanagement given to patients because of a combination of COVID-19 infection and another pathology that either could have caused the admission or developed during their stay.
Methods: We carried out a retrospective review of those admitted to the COVID-19 Internal Medicine units of the Reina Sofia University Hospital between January and June 2021, belonging to other specialities and in need of Comanagement.
Results: Over that period, we saw 678 patients with SARS-CoV-2. 7.5% of them needed comanagement, of which 51% came from surgical services (mostly General Surgery and Traumatology). Of the 7.5% who needed Shared Assistance, the majority of COVID-19 cases were asymptomatic or mild, allowing the intervention that led to their admission to take place. However, 23.5% developed a severe infection, 43% required low-flow oxygen therapy support in a conventional hospital ward and 8% required high-flow oxygen support. Mortality rate was 17.3% (11.5% with relation to COVID-19 and 5.8% due to their concomitant pathology.
Conclusions: Comanagement/Shared Assistance and consultation emerged as tools of support to surgical services and facilitated the management of comorbidities and coordination of patient care, ultimately reducing complications and mortality. In the current COVID-19 pandemic, it has shown to be highly beneficial.

2044 / #EV0364

SPONTANEOUS PNEUMOTHORAX AND PNEUMOMEDIASTINUM IN COVID-19 PNEUMONIA (UNRELATED TO POSITIVE PRESSURE): A RARE CASE

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Case Description: An 80-year-old man presented to the emergency department with 1 day of worsening fatigue and a syncope episode. The patient never smoked and had no underlying lung disease. The physical examination revealed bibasal crackles on lung examination and oxygen saturation of 88% on room air. The chest X-ray (CXR) showed bilateral infiltrates, and a reverse transcriptase PCR was positive for COVID-19. The chest computed tomography (CT) showed bilateral peripheral ground-glass infiltrates. Throughout hospitalization, the patient required increasing levels of supplemental oxygen, but at no point was used positive pressure oxygen devices. On day fourteen of hospitalization, the patient developed right pleuritic chest pain and transitional dyspnea.
Clinical Hypothesis: Pulmonary embolism, nosocomial pneumonia, organizing pneumonia or rneumothorax .
Diagnostic Pathways: A repeat CXR revealed a right pneumothorax. For further investigation the chest CT also revealed a large pneumomediastinum. The pneumomediastinum was managed conservatively, but in the pneumothorax case a chest tube was placed. Despite the improvement of these conditions, his hospital course was complicated by worsening hypoxia and the patient died from respiratory failure.
Discussion and Learning Points: In SARS-CoV-2 infection, pneumothorax and pneumomediastinum are infrequent presentations, especially if no predisposing factors are present, such as pulmonary diseases, tobacco or invasive or non-invasive positive pressure ventilation usage. Both are more frequent in males. Although our patient was male he did not have any of the predisposing factors. One lesson we can take is that pneumothorax and pneumomediastinum should be suspected even if the patient has none of the risk factors specially in the case of worsening

 DOI: 10.12890/2022_V9Sup1

condition.

982 / #EV0365

HEMOGLOBIN – IS THIS THE MISSING KEY TO UNDERSTAND SILENT HYPOXEMIA IN COVID-19?

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Background and Aims: Silent hypoxemia, characterized by asymptomatic low oxygen saturation levels, is one of the major concerns regarding COVID-19 infection, delaying its diagnosis and underestimating infection severity. Several mechanisms have been proposed to explain silent hypoxemia, namely SARS-CoV-2 neurotropism, intrapulmonary shunting and shifts in the oxygen dissociation curve. We aim to explore if tolerance to hypoxemia is related to higher hemoglobin values, similarly to what has been described in high-altitude-hypoxia.
Methods: A retrospective cohort study was conducted including hypoxemic (PaO2/FiO2 ratio<300 mmHg) patients with COVID-19 admitted between 02/01/2021 and 03/31/2021 in a district hospital. Silent hypoxemia was considered in the absence of dyspnea. Demographic, clinical and analytical data, namely hemoglobin levels at admission were analyzed. For statistical analysis, the IBM SPSS Statistics v26 software was used.
Results: In a sample of 247 patients, 47 (19.0%) had silent hypoxemia and 151 (81.0%) had dyspnea. There were no statistically significant differences in age (71.1±14.8 vs 74.6±13.8 years, p=0.178), gender (male 51.1% vs 53.5%, p=0.444) or assessed comorbidities, such as asthma (2.1% vs 3.5%, p=0.999) or COPD (6.4% vs 6.5%, p=0.977). Higher hemoglobin values (13.8±2.2 vs 12.9±1.7 g/dL, p=0.019) were observed in the absence of dyspnea, with no statistically significant differences in other studied parameters, namely in the ratio PaO2/FiO2.
Conclusions: Higher hemoglobin values seem to be associated with greater tolerance to hypoxemia in patients with COVID-19. Further studies are needed to understand the mechanisms of silent hypoxemia, as well as the role of hemoglobin in the treatment of these patients.

1357 / #EV0366

POST-COVID-19 VACCINE GUILLAIN-BARRE SYNDROME

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Case Description: Male, 28 years old, no medical history, woke up with inability to walk and decreased strength in the upper limbs. No breathing difficulties. The day before, referred the appearance of erythematous lesions on the arms, trunk and back. Patient received COVID-19 Vaccine Janssen within the previous 3 days. No other complaints or recent illness.
Clinical Hypothesis: Considering the temporal relationship between vaccination, the appearance of erythematous lesions and paresis, as well as the possibility of the occurrence of Guillain-Barré syndrome (GBS) after COVID-19 vaccination, this hypothesis was followed
Diagnostic Pathways: Glasgow scale 15. Upper functions were preserved; tetraparesis grade 3, no change in sensitivity. Impossible walk. Reflexes in the lower limbs slightly increased. Analytically: leucocytosis and neutrophilia, negative CPR. Normal Cerebral CT. Lumbar puncture with clear fluid leaving, without changing the outlet pressure, with characteristics of protein-cytological dissociation, bacteriological negative. Assumed the possibility of post-COVID-19 vaccine GBS and initiated Immunoglobulin IV (IGIV). Functional recovery after 1st day. Fulfilled 5 days of IGIV with full recovery of deficits. Electromyography suggested the existence of some degree of polyradiculoneuritis.
Discussion and Learning Points: GBS is a post-infectious autoimmune pathology triggered by a mechanism of molecular mimicry characterized by flaccid ascending paralysis and often arreflexic, symmetrical and dissociation albumin-cytological in cerebrospinal fluid. GBS was described during or after SARS-CoV-2 infection and after vaccination, for both RNA and adenovirus vaccine. Giving the available data, European Medical Agency considered a possible relationship between Janssen vaccine and GBS. In GBS, recovery generally occurs in 85% of cases.

1553 / #EV0367

HIGH-FLOW NASAL OXYGEN (HFNO) FOR PATIENTS WITH COVID-19 OUTSIDE INTENSIVE CARE UNITS

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Background and Aims: High-flow nasal oxygen (HFNO) has traditionally only been used in intensive care units (ICU) especially in acute respiratory distress syndrome (ARDS).
Methods: We studied the use of HFNO at Södersjukhuset, Stockholm, in patients with moderate to severe ARDS related to COVID-19 as well as its benefits both for patients and to offload

 DOI: 10.12890/2022_V9Sup1

the ICU. The patients were observed with frequent controls to assess the need of ICU in case of deterioration.
Results: We studied 41 patients with HFNO treatment either as primarily treatment (Step-Up) or after stabilizing in the ICU (Step-Down). The average duration for treatment with HFNO was 5.6 days. Of these patients 55% were discharged home or to geriatric rehabilitation and 10% avoided ICU completely. The usage of HFNO saved in total 229 days in the ICU. Mortality was higher among elderly patients, and patients with comorbidities (mainly hypertension and obesity).
Conclusions: HFNO treatment is feasible and efficient for patients with COVID-19, saving resources in the ICU and offering additional advantages as waken proning and fewer complications compared to traditional ICU care. It requires however frequent controls as deterioration is recurrent.

971 / #EV0368

ACUTE HEPATITIS AND AUTOIMMUNE THYROIDITIS AS A RARE PRESENTATION OF COVID-19

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Case Description: A 34-year-old healthy female patient came to de emergency department with abdominal pain. She denied other symptoms (respiratory, fever, pain chest, anosmia), drug, alcohol or medication abuse. The blood works showed a pancytopenia and an acute hepatitis (total bilirubin 3.0 mg/dL, direct bilirubin 2.2 mg/dL, aspartate aminotransferase 1249 IU/L, alanine aminotransferase 823 IU/L, alkaline phosphatase 147 IU/L, g-glutamyl transferase 160 IU/L); negative C reactive protein. Abdominal ultrasound was normal and Computed Tomography of the abdomen shown signs of hepatic steatosis. The patient was admitted to Internal Medicine ward for investigation. The routine PCR for SARS-CoV2 was positive (unvaccinated for COVID-19).
Clinical Hypothesis: Acute hepatitis as a COVID-19 manifestation.
Diagnostic Pathways: Serological tests were negative for hepatitis A, B, C and E, EBV, CMV, HIV, HSV1, HSV2, *Coxiella burnetii*, Brucella. Wilson Disease, hemochromatosis and alpha-1 antitrypsin deficiency were excluded. Thyroid hormones revealed a hyperthyroidism: TSH <0.00 µUI/mL, FT4 3.30 ng/dL. Screening for autoimmune hepatitis markers were negative but anti-thyroid stimulating hormone receptor-antibody, thyroperoxidase and thyroglobulin antibodies were detected to be positive. Thyroid ultrasound showed a normal-sized gland with a diffuse heterogeneous texture. Acute hepatitis resolved after four weeks without specific treatment.
Discussion and Learning Points: SARS-CoV-2 infection may be asymptomatic and frequently presents with respiratory symptoms. Other extrapulmonary manifestations are described in the literature. Acute hepatitis and autoimmune thyroiditis are rare presentations of COVID-19 in a patient without respiratory symptoms.

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1253 / #EV0369

RAPIDLY AND SEVERE PULMONARY FIBROSIS IN A COVID-19 SURVIVOR

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Case Description: A 56-year-old male, former smoker with a 55-day history of admission to the Intensive Care Unit for bilateral SARS-CoV-2 pneumonia complicated by overinfection and acute respiratory distress syndrome requiring invasive mechanical ventilation. Chest CT at the time described centrilobular and paraseptal emphysema and findings compatible with SARS-CoV-2 pneumonia. He was discharged home on noninvasive mechanical ventilation and oxygen. 5 months later the patient was evaluated in consultation. Control chest CT described disorganization of the normal lobular structure with signs of septal fibrosis and formation of multiple large subpleural parenchymal bullae in the apical regions and lower lobes and in the basal regions forming a honeycomb pattern. Nintendanib was started as an antifibrotic and due to the rapid evolution and irreversible sequelae after SARS-CoV-2 infection, the patient was referred for lung transplantation, which is awaiting.
Clinical Hypothesis: It was assumed the diagnosis of rapidly evolving Combined pulmonary fibrosis and emphysema (CPEF) after SARS-CoV-2 infection.
Diagnostic Pathways: Other etiologies were dismissed, namely bacterial or mycological infections, active/latent tuberculosis and autoimmune diseases. During the follow-up, was performed not only a transthoracic echocardiogram which revealed signs suggestive of pulmonary hypertension but also respiratory functional tests that showed moderate restrictive changes with severe impairment of alveolocapillary diffusion.
Discussion and Learning Points: Reviewing the current literature we know that patients with severe COVID-19 pneumonia are likely to have an increased risk of progression to interstitial lung disease and chronic pulmonary vascular disease which unquestionably leads to an increased mortality and morbidity.

 DOI: 10.12890/2022_V9Sup1

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POSTCOVID19 SYMPTOMS AFTER HOSPITALIZATION, AN OBSERVATIONAL RETROSPECTIVE STUDY

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Background and Aims: The goal is to analyse the most common residual symptoms after an hospitalization due to a SARS-COV-2 infection.

Methods: It is an observational, retrospective and descriptive study. We included 134 patients with positive PCR of SARS-COV-2 who were hospitalised between 01/03/2020 until 27/03/2020 in the Hospital Clínico San Carlos (Madrid). We compiled the information with telephone surveys (6 weeks after the hospital discharge) by a non-probabilistic consecutive sampling.

Results: From the 134 patients, 62 were men (46.3%) and 72 were women. 73 patients (54.3%) continued with asthenia, 31 with chest pain (23.1%) and 29 (21.6%) with palpitations. 54 patients remained with dyspnea (40.3%). 36 patients (26.9%) continued with dry cough and 35 patients (26.1%) with anosmia and 29 (21.6%) with dysgeusia. 10 patients (7.5%) persisted with paresthesia.

Conclusions: We can observe that the residual symptoms coincide with the most common symptoms in the acute phase. In most cases there are not incapacitating symptoms but they disturb the whole life of these patients. We must focus on the acute phase of the illness but we have to improve the management of the chronic phase too. More research must be done in order to have more knowledge about this infectious disease in the chronic phase.

Balachandar V, et. al. Follow-up studies in COVID-19 recovered patient - is it mandatory? DOI: 10.1016/j.scitotenv.2020.139021

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AGAINST ALL ODDS: CHALLENGES IN MANAGING COVID-19 SEVERE ILLNESS IN A RURAL SETTING

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Case Description: This is a serie of cases of three patients (a 60-year-old female, a 65-year-old female, a 67-year-old male with hypertension). Admitted with respiratory distress, <90% oxygen saturation/SpO2 in room air, apyretic, tachycardia, and bilateral pulmonary crackles. Oxygen via non-rebreather-mask (NRM) on prone position, 6mg/day dexamethasone, ceftriaxone, azithromycin, vitamins (B,C,D3,E), aspirin, clopidogrel, amlodipine were administered. 72 hours later showed clinical improvement and NRM was gradually shifted to a nasal cannula. Antibiotics were completed in 7 days while dexamethasone was gradually tapered until 10 days. 20 days later, they were able to breath without supplemental oxygen. Noted minimal clearing of infiltrates on radiograph and normalization of blood test. Hence, discharged and consistently improving.

Clinical Hypothesis: Severe COVID-19 that's not managed with remdesivir, dexamethasone, interleukin inhibitor/kinase inhibitor and anticoagulant will succumb.

Diagnostic Pathways: Complete blood count showed leucocytosis with lymphopenia. Electrocardiogram showed sinus tachycardia. Chest radiograph revealed cardiomegaly and severe pneumonia (>50% infiltrates both lungs). Diagnosis were confirmed by positive polymerase chain reaction swab test for COVID-19.

Discussion and Learning Points: The patients were to be referred but the referral hospital was out of capacity. Our hospital has no CT-scan, d-dimer or other coagulation tests, arterial blood gas nor high-flow oxygen device. There is no remdesivir, interleukin/kinase inhibitor or anticoagulant. In light with the pathophysiology of severe COVID-19, 6 mg/day dexamethasone was utilized for cytokine storm and dual antiplatelet (acute coronary syndrome dosage) for coagulopathy. Maximal oxygen via NRM on prone position were applied to improve hypoxemia. These pragmatical approaches were somehow effective. The underlying comorbid and unvaccinated status were contributing to severe COVID-19.

217 / #EV0372

A SERIAL CASE REPORT OF COVID-19 MIMICKING TYPHOID FEVER SYMPTOMS

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Case Description: This is four serial cases (a 18-year-old male, 31-year-old male, 21-year-old female, 40-year-old female) with similar clinical presentation (>5 days of fever, abdominal pain, nausea, occasional vomiting, and headache). No comorbidities and already vaccinated for COVID-19. They were initially managed as typhoid fever due to markedly elevated antibody of Widal test in primary health care. However, there were no improvement despite taking ciprofloxacin. Further work-up revealed negative antibody anti-salmonella IgM, but positive for COVID-19 polymerase chain reaction (PCR) swab test. Acetaminophen, multivitamin (D3,C,E, zinc), omeprazole, probiotic were administered. Their symptoms were recovered and completed 14 day self-isolation. There was no report of respiratory tract symptoms. Noted fatigue in scheduled follow-up.

Clinical Hypothesis: COVID-19 symptoms can involve the gastrointestinal (GI) system.

Diagnostic Pathways: Complete blood count showed leukopenia with lymphopenia and mild thrombocytopenia. Elevated antibody titer of anti-salmonella typhi H and O (Widal test) ranging from 1:320 to 1:640 and negative swab antigen test for COVID-19. Further work up revealed signs of gastritis on abdominal ultrasonography. Normal findings on chest radiograph. Normal sinus rhythm on electrocardiogram. Negative antibody anti-

DOI: 10.12890/2022_V9Sup1

salmonella IgM but positive PCR swab test for SARS-CoV-2.
Discussion and Learning Points: The underlying mechanism for GI symptoms in COVID-19 could be explained by the location of angiotensin converting enzyme-2 (ACE-2) receptor as the main SARS-CoV-2 entry site. Data showed that ACE-2 receptor is also present in the GI tract. Test of antibody anti-Salmonella IgM and PCR swab test can exclude GI symptoms mimicking typhoid fever from COVID-19. Vaccinated status could lessen the severity of COVID-19's symptoms.

423 / #EV0373

DEVELOPMENT OF FIBROMYALGIA FOLLOWING HOSPITAL ADMISSION DUE TO COVID-19

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Background and Aims: Based on the emerging studies regarding long-term consequences of coronavirus disease-2019 (COVID-19), post-COVID symptoms and fibromyalgia (FM) syndrome may clinically overlap. We aimed to investigate the incidence of FM syndrome among hospitalized COVID-19 survivors.
Methods: This is a cross-sectional study including patients who were discharged after hospitalization due to COVID-19 from our institute between July to November 2020. A phone interview was preformed including fibromyalgia survey diagnostic criteria, Sense of coherence (SOC) questionnaire to evaluate resilience and Subjective Traumatic Outlook (STO) questionnaire to assess the psychological aspects of trauma. The incidence of post-COVID FM was calculated and regression models were performed to identify predictors.
Results: The study population consisted of 198 eligible patients who completed the phone interview. Median age was 64 (52-72) and 37% were women. The median follow-up was 5.2 months (IQR 4.4-5.8). The incidence of FM was 15% (30 patients) and 87% had at least one FM-related symptom. Female sex was associated with post-COVID FM (OR 3.65, p=0.002). In addition, STO and SOC scores were both associated with post-COVID FM (OR 1.19, p<0.001 and OR 0.92, p<0.001 respectively). However, COVID severity and treatments during the acute phase were not found to be predictors.
Conclusions: COVID-19 survivors have higher incidence of FM compared to the general population. Female sex, low resilience and significant subjective traumatic experience are associated with post-COVID FM. Screening for FM should be considered among COVID-19 survivors with multi suggestive symptoms.

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DEMOGRAPHICS AND COMORBIDITY DURING FIRST 15 DAYS OF SARS-COV-2 PANDEMIC IN SPANISH SECOND-LEVEL HOSPITAL.

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Background and Aims: Spain has been one of the most affected countries by SARS-COV-2 pandemic. We proposed to know demographics and comorbidity of patients hospitalized for COVID-19 infection during the first 15 days of the SARS-COV-2 pandemic in a Second Level Hospital Internal Medicine Department.
Methods: Descriptive and retrospective analysis of patients admitted to our center from 03/15/2020 to 04/01/2020. They were consecutive included in the SEMI-COVID19 National Registry after oral informed consent. The general registry was requested to download local data, which were reviewed and subjected to statistical study using SPSS Statistics 22.0.
Results: 286 total cases, 11 were excluded. The median age was 68.9 years (range: 25-97). 63.6% were men. The predominant race was caucasian (98.5%). 72.1% of all had no previous comorbidity. Most prevalent chronic disease was hypertension (52%), followed by dyslipidemia (30.8%) and diabetes (19.6%). Only 9% had chronic lung disease, and 7.6% had active neoplasm. 215 patients (78.2%) were discharged due to clinic improvement and 60 cases of in-hospital deaths were registered during this period (22.1%).
Conclusions: At the beginning of SARS-COV-2 pandemic, a young population without comorbidity required hospital admission. Despite this, the majority group was men older than 65 years. Within this group, those with multiple comorbidities had a worse prognose and a higher mortality.

 DOI: 10.12890/2022_V9Sup1

1712 / #EV0375

A SYNDEMIC CASE REPORT OF COVID-19 CRITICAL ILLNESS AND AIDS: RISK-FACTOR OR PREDICTOR OF POOR OUTCOME?

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Case Description: A 49-year old man, with a history of HIV acquired immunodeficiency diagnosed one year ago, central nervous system toxoplasmosis, HIV-associated neurocognitive disorder, receiving antiretroviral therapy (ARV), pyrimethamine, atovaquone, was admitted to COVID-19 clinic due to 5-day fever. The patient was unvaccinated for COVID-19. He reported dyscataposis and a productive cough. Clinical examination revealed respiratory rhonchi but no hypooxygonemia. From laboratory results, inflammatory syndrome, electrolytes abnormalities, mild lymphopenia (recent CD4 T Lymphocytes=124) were noted. The patient received the same management as non-HIV patients (according to local guidelines). On the 5th day, the patient developed acute respiratory failure, was intubated and transferred to the Intensive Care Unit.

Clinical Hypothesis: Our clinical hypothesis concerns the question whether AIDS immunodeficiency is an independent risk factor or/and a poor outcome predictor, regarding the COVID-19 infection.

Diagnostic Pathways: During his ICU hospitalisation, the patient remained intubated for ten days and then underwent tracheostomy. After one month he was transferred to COVID-19 clinic on antibiotic and antifungal medication, with less oxygen demand (FIO2=24%), though on noradrenaline, thus still septic. He had multibacterial positive cultures. Twenty days later, he was deceased, with still positive RT-PCR for COVID-19.

Discussion and Learning Points: This case raises the awareness of the morbidity of COVID-19 in HIV patients, an impact that remains uncertain. Here, the possible fluctuating compliance to ARV therapy, low CD4 T lymphocytes and recent history of AIDS-defining infections (CNS toxoplasmosis), contributed to the devastating outcome. More data though are necessary to evaluate this entity and give a precise anwser.

1244 / #EV0376

MULTISYSTEM INFLAMMATORY SYNDROME IN ADULTS – A RARE COMPLICATION OF COVID-19 DISEASE

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Case Description: We describe a 34-yearold woman with a personal history of SARS-CoV-2 infection who presented 4 weeks later with fever, headache, myalgias, arthralgias, jaundice, acholia, choluria. The patient was diagnosed with Multisystem Inflammatory Syndrome in Adults (MIS-A) and was treated with corticoids, intravenous immunoglobulin and tocilizumab.

Clinical Hypothesis: Autoimmune, infectious and neoplastic diseases.

Diagnostic Pathways: Exclusion of autoimmune, infectious and neoplastic diseases.

Discussion and Learning Points: MIS-A is a severe illness requiring hospitalization in a person aged more than 21 years, with laboratory evidence of current or previous (within 12 weeks) SARS-CoV-2 infection, severe extrapulmonary organ dysfunction (including thrombosis), laboratory evidence of severe inflammation, and absence of severe respiratory disease The SARS-CoV-2 causes the infectious disease Coronavirus disease 2019 (COVID-19) that's characterized by a severe acute respiratory syndrome, a hyperinflammatory response, vascular damage, microangiopathy, angiogenesis and widespread thrombosis We can consider MIS-A as a rare complication of COVID-19 disease, although more studies are needed to fully understand this syndrome, it's important to all the physicians to recognize it so the treatment and its complications aren't delayed.

Vogel, T. P., Top, K. A., Karatzios, C., Hilmers, D. C., Tapia, L. I., Moceri, P., Giovannini-Chami, L., Wood, N., Chandler, R. E., Klein, N. P., Schlaudecker, E. P., Poli, M. C., Muscal, E., & Munoz, F. M. (2021). Multisystem inflammatory syndrome in children and adults (MIS-C/A): Case definition & guidelines for data collection, analysis, and presentation of immunization safety data. Vaccine, 39(22), 3037–3049. Stasi, C., Fallani, S., Voller, F., & Silvestri, C. (2020). Treatment for COVID-19: An overview. European journal of pharmacology, 889, 173644.

1727 / #EV0377

AWAKE PRONING: A FUTURE STANDARD OF CARE IN ACUTE RESPIRATORY DISEASES?

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Case Description: COVID-19 leads to Acute Respiratory Failure (ARF), ultimately progressing to Acute Respiratory Distress

 DOI: 10.12890/2022_V9Sup1

Syndrome (ARDS). We present a case of an awake proning/reposition (APR) strategy in a patient with COVID-19-ARF. A 65-year-old man was admitted for severe COVID-19. At presentation, he was dyspneic on the 10th disease day, had mild hypoxemia and mild systemic inflammation. Immediately, dexamethasone 6mg qd, prophylactic anticoagulation and conventional oxygen therapy (COT) were started. In the first 48 hours, ARF kept worsening and increasing COT demand was needed. APR was started, leading to hypoxemia and polypnea improvement. The patient was ultimately transferred to the Intensive Care Unit (ICU), where non-invasive-ventilation (NIV) and APR were maintained for one week and invasive ventilation (IV) avoided. After twenty days of hospitalization, the patient was discharged without COT.
Clinical Hypothesis: COVID-19 pneumonia.
Diagnostic Pathways: RT-PCR positive for COVID-19.
Discussion and Learning Points: Proning position (PP) is an already largely diffused strategy in ICU patients, which improves ARF and prevents ARDS and IV. Supine position leads to dorsal alveoli atelectasis by causing direct (compression) and indirect (over-inflation of ventral alveoli) pressure, which ultimately leads to V/Q mismatch. PP improves V/Q mismatch, reduces shunt and recruits posterior alveoli. APR is a PP strategy in awake/conscious patients, which improves oxygenation and dyspnea. APR can be autonomously achieved, which can be relevant during a pandemic context. In conclusion, APR leads to oxygenation and respiratory comfort improvement, possibly improving COVID-19 prognosis and avoiding IV. Moreover, it may become a standard of care in ARF by other acute respiratory diseases.

1008 / #EV0378

COVID-ARDS: THE HISTOPATHOLOGIC BASIS OF THE ELASTANCE PATTERNS

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Background and Aims: It has been postulated that COVID-19-related ARDS (cARDS) may be categorized into two distinctive pathophysiologic phenotypes: Type L, characterized by Low elastance (that is reciprocal of compliance), Low ventilation-to-perfusion ratio, Low lung weight and Low recruitability and Type H, with opposite features. However, a link between mechanoelastic ventilatory characteristics and histopathologic features has not been described so far.
Methods: Histopathologic analysis of 75 consecutive full autopsies of patients died from COVID-19 between February 29 and June 30, 2020 in Milan, Italy. The histopathologic patterns were scored in a semiquantitative manner and used for hierarchical clustering. Daily mechanical ventilatory parameters were considered until day 30.
Results: 41 patients had daily mechanoelastic ventilatory measures. An inverse correlation was found between dynamic compliance (Cdyn) and late-proliferative diffuse alveolar damage (DAD) (r=-0.381, p=0.026) and was more marked in patients in the higher tertile of length of stay in ICU (LOS-ICU) (r=-0.841, p=0.002). The means of Cdyn and late-proliferative DAD changed according to tertiles of LOS-ICU (p=0.04 and p<0.0001 respectively) and tertiles of mean positive end-expiratory pressure (p=0.006 and p=0.0035 respectively). Three clusters, with coexisting histopathologic patterns, were identified. Cdyn of the cluster with prevalence of fibroproliferative -not recruitable- DADs was lower compared to the other clusters (p=0.026 and p=0.009), while Cdyn didn't differ between the other two clusters.
Conclusions: Lung histopathology of cARDS is complex, with overlapping patterns in which lung mechanoelastic characteristics evolve during disease course. Therefore, H and L type categorization seems more speculative than supported by histopathologic data.

934 / #EV0379

A CASE OF PERICARDITIS AFTER THE COVID-19 MRNA VACCINE

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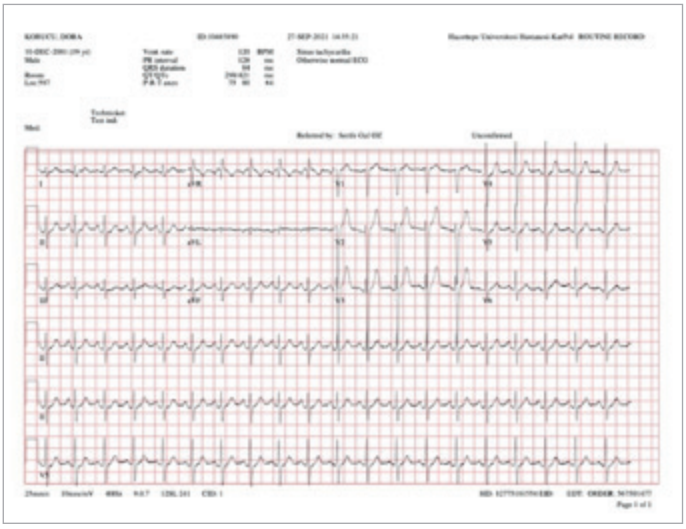
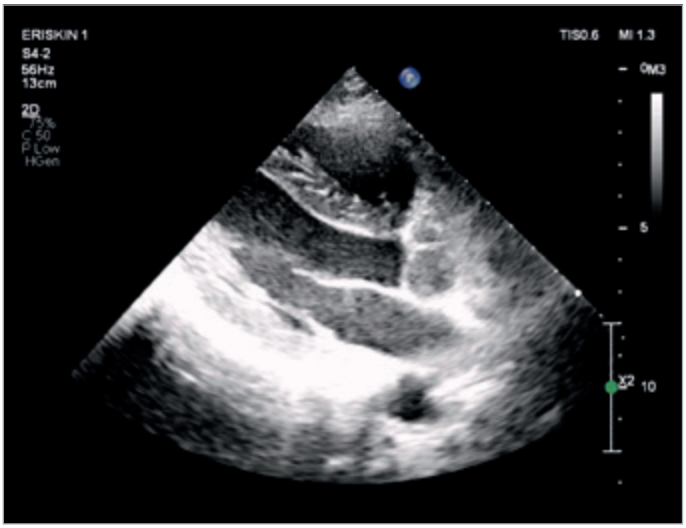
Case Description: A 19-year-old male patient was admitted to outpatient clinic with worsening chest pain when lying flat and relieved by leaning forward or sitting up since 3 days after his first COVID-19 mRNA (Pfizer-Biontech) vaccination. He had no fever. Lung sounds were normal, no rales or rhonchi were heard. All peripheral pulses were strong and regular, cardiac examination was normal. He had no history of trauma, smoking/alcohol, medication use. C-reactive protein level was 0.193 mg/dL (0-0.05). Erythrocyte sedimentation rate, hemoglobin and leukocyte counts were normal. Cardiac enzyme levels such as myoglobin, troponin, and creatine kinase were all in normal ranges. No agents were detected in the respiratory tract bacterial and viral panel (including COVID-19). No pathological finding was detected in the chest X-ray. The electrocardiogram (ECG) revealed widespread concave ST elevation and PR depression with sinus tachycardia (Figure 1).
Clinical Hypothesis: Pericarditis was considered with the history, clinical and ECG findings.
Diagnostic Pathways: Transthoracic echocardiography was planned with a preliminary diagnosis of pericarditis that significant

 DOI: 10.12890/2022_V9Sup1

increase in echogenicity was observed in the pericardium. There were no pericardial fluid (Figure 2). The patient diagnosed with "Autoimmune pericarditis related to the COVID-19 mRNA vaccine". NSAID was prescribed and bed rest was recommended.
Discussion and Learning Points: Lately with the SARS-CoV-2 pandemic and rapid development of vaccinations, an increased number of cases above an expected population rate of pericarditis have been reported in individuals who received mRNA COVID-19 vaccines. Pericarditis should be kept in mind in patients with chest pain after vaccination.



#EV0379 Figure 1.



#EV0379 Figure 2.

1029 / #EV0380

OUTCOMES OF ENOXAPARIN TREATMENT IN 136 HOSPITALIZED SEVERE, NON-CRITICALLY ILL COVID-19 PATIENTS: PRELIMINARY RESULTS FROM THE EMOS-COVID TRIAL

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Background and Aims: COVID-19 carries a high risk of vascular thrombosis. This prospective trial aimed to assess the efficacy and safety of enoxaparin at prophylactic vs therapeutic dose in hospitalized COVID-19 patients.
Methods: Single center phase III interventional randomized controlled trial (NCT04646655). COVID-19 patients with PaO2/FiO2 <250 and/or D-dimer >2000 ng/ml were enrolled. Patients with previous bleeding, hemostatic alterations, indications for full dose anticoagulation, severe renal failure were excluded. Clinical-biochemical parameters were monitored. Lower limbs venous compression ultrasound (CUS) was done at admission and after 7 days.
Results: From May 11, 2020 to May 7, 2021, 136 patients (mean age 62.73± 9.65 years) were enrolled, 68 randomized to prophylactic and 68 to therapeutic enoxaparin (70 U/Kg b.i.d. every 12 h). Baseline clinical and laboratory data were similar. Pivotal endpoints did not differ between the two arms: in-hospital and 30-day mortality (7.3% vs 7.3%, 5.9% vs 5.9%, p=1), need for mechanical ventilation (11.7% vs 6.2%, p=0.23), length of hospitalization (17.8 vs 16.5 days, p=0.46), CPAP days (8.3 vs 6.9, p=0.12), positive pressure ventilation-free days (9.4 vs 9.9 days, p=0.72). No patients developed major bleeding; two patients in the therapeutic arm and one in the prophylactic arm had clinically relevant non-major bleeding. In both arms, CUS did not reveal deep vein thrombosis. Three patients in the prophylactic arm experienced acute pulmonary embolism vs none in the therapeutic arm (p=0.24).
Conclusions: Our preliminary results do not highlight significant differences in the clinical course of moderate-to-severe COVID-19 patients treated with prophylactic vs therapeutic enoxaparin.

DOI: 10.12890/2022_V9Sup1

899 / #EV0381

LONG COVID SYNDROME: A CASE-CONTROL STUDY

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Background and Aims:
The mechanisms underlying the disproportionate effect of COVID-19 on patients with cardiovascular comorbidities remain incompletely understood. To assess whether COVID-19 has adverse clinical outcomes at medium-term.
Methods: A case-control study was performed. Cases were diagnosed with COVID-19 infection following nasopharyngeal swabbing; controls were age-and gender-matched subjects who were COVID-19 negative following swabbing and COVID-IgG antibodies. All were submitted a standardised questionnaire. Blood investigations were taken including NT-proBNP and troponin. hsCRP was taken as marker of inflammation, vWF as marker of endothelial dysfunction.
Results: 270 subjects were recruited, 174 cases and 96 controls. Of the latter, 21 were found to be COVID-IgG positive and were excluded. The mean age of the participants was 46.1±13.8years. The median follow-up was 173.5 days (IQR129-193.25). There was no statistically significant difference in baseline demographics, cardiovascular risk factors and underlying medical conditions between cases and controls. Regarding symptomatology at follow-up, there was a statistically significant difference between groups with regards deterioration in general condition ($p<0.001$), dyspnoea ($p=0.008$), fatigue ($p=0.044$), arthralgia ($p<0.001$), abnormal taste ($p<0.001$) and anosmia ($p<0.001$), cases were adversely affected. Blood investigations at follow-up, only hsCRP was statistically significant higher in cases ($p=0.03$). Correlation analysis revealed a negative correlation with troponin ($p=0.013$, $r=-0.19$) and vWF ($p=0.026$, $r=-0.169$) with time. Multivariate analysis revealed that cases experiencing dyspnoea had significantly higher white cell count (OR1.22, 95%CI 1.02-1.46, $p=0.029$) and troponin (OR1.15, 95%CI 1.02-1.29, $p= 0.015$) and lower haemoglobin (OR0.66, 95%CI0.5-0.86, $p<0.002$) at follow-up.
Conclusions: COVID-19 positive subjects have persistent symptomatology at medium-term follow-up. The role of markers of inflammation and endothelial dysfunction at longterm merit further investigation.

2378 / #EV0382

COVID-19 AND PULMONARY ASPERGILLOSIS: A DESTRUCTIVE MATCH

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Case Description: *Aspergillus* is a saprophytic fungus widespread in the environment, that can cause opportunistic infections in immunocompromised patients. One of the most important manifestation of aspergillosis is invasive pulmonary aspergillosis.
Clinical Hypothesis: A 62-year-old woman without significant past medical history was diagnosed and treated for COVID-19 pneumonia for the last 52 days.
Diagnostic Pathways: On day 53 she showed tachypnea, fever, CRP 25.4 mg/L, leukocytosis (19,580/uL with neutrophilia). Chest X-ray and CT scan showed a cavity lesion in the right medial lobe. Briochial secretions culture and microscopy revealed Aspergillus fumigatus. The patient was treated with intravenous voriconazole
Discussion and Learning Points: COVID-19 infected patients are in high risk of being infected by *Aspergillus*. Diagnosis is challenging as aspergillosis is a life threatening complication. Antifungal treatment should be considered in critically ill patients with severe covid-19 pneumonia.

1038 / #EV0383

DETERMINANTS OF HOSPITALISATION AND NEED FOR INTUBATION IN COVID-19 SUBJECTS

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Background and Aims: COVID-19 infection resulted in significant morbidity and mortality, with frail and immunocompromised subjects being more severely affected. It is unclear which patients are most adversely affected. Aim: To assess determinants of severe COVID-19 infection, as suggested by hospitalisation and intubation.
Methods: A cross-sectional survey was conducted in subjects diagnosed with COVID-19 following nasopharyngeal swabbing. All participants were asked whether they required hospitalisation or intubation. They were submitted a standardised questionnaire. This was done via telephone call.
Results: 2,650 subjects participated. Median age was 44 years (IQR:31-55). 48.6% were males. 5% were hospitalised and 0.7% intubated. In univariate analysis, age, gender, smoking, hypertension, hyperlipdaemia, ischaemic heart disease,

DOI: 10.12890/2022_V9Sup1

cerebrovascular disease, peripheral vascular disease, heart failure, diabetes type 1 and type 2, atrial fibrillation, obesity, chronic kidney disease (CKD) and being on immunosuppressants, were found to be statistically significant (p<0.05). However, on multivariate analysis, age (OR1.07, 95%CI 1.05-1.08, p<0.001), male gender (OR1.84, 95%CI 1.27-2.68, p=0.001), hypertension (OR1.82, 95%CI 1.21-2.73, p=0.004), CKD (OR66.67, 95%CI 7.04-500, p<0.001) and chronic respiratory disease (OR3.19, 95%CI 1.92-5.32, p<0.001) were shown to be independent determinants of hospitalisation. Likewise, univariate analysis was performed to assess for variables associated with intubation. Age, male gender, smoking, hypertension, heart failure, atrial fibrillation and CKD were statistically significant (p<0.05). On multivariate analysis, age (OR1.06, 95%CI 1.004-1.113, p=0.034) and CKD (OR22.22, 95%CI 1.87-250, p=0.014) were found to be independent determinants.
Conclusions: In the study population, CKD was the strongest predictor of severe COVID-19 disease, followed by chronic respiratory disease, hypertension, male gender and increasing age. Further follow-up regarding outcomes of the hospitalised population is merited.

2379 / #EV0384

CYTOMEGALOVIRUS COLITIS IN PATIENT WITH COVID-19

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Case Description: Cytomegalovirus (CMV) is a double-stranded deoxyribonucleic acid virus belonging to the Herpesviridae family that exists in 50%-80% of the world population and it is in clinically undetected form due to immunocompetent status of general population.
Clinical Hypothesis: A 70-year-old man was diagnosed and treated for COVID-19 pneumonia for the last 40 days. On day 42 he presented diarrhea, abdominal pain and fever.
Diagnostic Pathways: Blood, urine, stool, respiratory, stool and catheter cultures were all negative. The patient was also tested for *Clostridium difficile* toxin A and B using immunochromatography method which was also negative. CMV serum antibodies IGG and IGM were detected positive by the Microbiology- Immunology Department. Colonoscopy was performed and obtained colonic biopsies. The positive stool CMV-PCR result was a useful hint for making a definite diagnosis of CMV colitis. The patient was treated with ganciclovir.
Discussion and Learning Points: Critically ill patients frequently demonstrate immunedeficiency, predisposing them to viral reactivations, like CMV colitis and it is associated with high morbidity and mortality. Despite being a rare condition, these patients should be tested for cytomegalovirus infection, if the clinical picture is compatible, to avoid delay in diagnosis and allow prompt start of specific therapy.

263 / #EV0385

A FATAL CASE OF SARS-COV-2 IN A STAGE OF FULMINANT PROTHROMBOSIS: MALIGNANT STROKE

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Case Description: A 52-year-old man with DM, DL, AHT came up to the ER for abdominal pain. During the anamnesis we found a oxygen saturation of 72%, with no effects with support with ventimask. A complete physical examination was performed where a decrease in general murmur was observed with an adequate neurological examination, without a decrease in strength or sensitivity in any of the extremities.
Clinical Hypothesis: After the medical examination our first hypothesis was COVID-19, due to the high prothrombotic capacity, the diagnosis evolved to a malignant stroke.
Diagnostic Pathways: We decided to make a covid rapid test, lab test and a chest rx obtaining an elevation of the c-reactive protein, D-Dimer, positive result for covid and a masive bilateral pneumonia in the imaging test deciding medical hospitalization inmediatly. Ten minutes after being hospitalized, the patient suffered a sudden clinic of dysarthria, and loss of mobility of his right hemibody, entering a coma, requiring orotracheal intubation and transfer to the stroke unit. Angio-CT was performed in the emergency room, observing massive stroke of the entire frontal, parietal and occipital left hemisphere, unfortunately dying a few hours after the clinical onset.
Discussion and Learning Points: The 2019 coronavirus disease presents with a large variety of clinical manifestations ranging from asymptomatic carrier state to severe multiple organ dysfunction and death. Accumulating data suggests that COVID-19 results in a unique, profoundly prothrombotic milieu leading to both arterial and venous thrombosis. Only 10% of strokes has a malignant course, this case of COVID-19 show us the devastating type of this ischaemic stroke and the huge trombotic capacity of this disease.

 DOI: 10.12890/2022_V9Sup1

1054 / #EV0386

CLINICAL OUTCOMES OF COVID-19 RECOVERED PATIENTS

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Background and Aims: COVID-19 infection resulted in significant concern in view of the multi-organ involvement and high fatality rate, especially amongst elderly patients, immune deficient subjects and those with underlying medical conditions. Aim: To assess clinical outcomes at medium-term follow-up in subjects previously infected with COVID-19.
Methods: A cross-sectional survey was conducted in subjects who were diagnosed with COVID-19 following nasopharyhngeal swabbing. All participants were submitted a standardised questionnaire and a questionnaire to assess for persistent symptomatology. This was done via telephone call. Blood investigations were taken for participants who wished to do so.
Results: 2,650 subjects participated. Median age was 44 years (IQR:31-55). 48.6% were males. 5% were hospitalised, 0.7% intubated. Smokers comprised 16.9%, 10.3% were ex-smokers. 17% suffered from hypertension, 10.7% hyperlipidaemia, 2.3% ischaemic heart disease, 0.6% heart failure, 18% obesity, 0.2% chronic kidney disease, 6.9% chronic respiratory disease and 7.3% type 2 diabetes mellitus. At a median follow-up of 142 days (IQR:128-161), 22% of participants claimed they were feeling worse than before COVID-19, 77% claimed that their general condition was same. 22.5% reported dyspnoea, 8.4% chest pain, 25.6% fatigue, 19.6% headaches and 14.7%. myalgias. Abnormal taste and anosmia were reported in 52.9% and 55.2% respectively. On analysis of blood investigations, it was noted that hospitalised patients had significantly higher alkaline phosphatase and troponin ($p<0.05$) at follow-up. Subjects who required intubation had significantly higher troponin ($p<0.05$).
Conclusions: At medium-term, approximately one-fifth of subjects were still significantly debilitated following COVID-19. Elevated troponin at follow-up seems to indicate more severe disease. This merits further investigation.

2319 / #EV0387

ASSOCIATION BETWEEN VITAMIN D LEVELS AND INCIDENCE, SEVERITY AND MORTALITY FROM COVID-19

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Background and Aims: Some studies suggest that elevated plasma levels of vitamin D (25-OH-D3) have a beneficial effect against COVID-19. Therefore, the objective of the study is to determine if the decreased levels of 25-OH-D3 are associated with a greater probability of SARS-CoV-2 infection and if they negatively influence the evolution of COVID-19 patients admitted to the Miguel Servet University Hospital (HUMS).
Methods: The retrospective observational design was carried out using three databases: (A) PCR tests for the detection of SARS-CoV-2, (B) Plasma levels of 25-OH-D3, (C) Patients admitted with COVID-19. From them, three substudies were developed including subjects with 25-OH-D3 determinations of the 12 months prior to admission or SARS-CoV-2 PCR: (1) "25-OH-D3 IN PATIENTS WITH SARS-CoV-2 PCR TESTING", (2) "25-OH-D3 IN HOSPITALIZED PATIENTS", (3) "25-OH-D3 IN HOSPITALIZED PCR PATIENTS". A descriptive and comparison study of the patients categorized according to their plasma vitamin D levels was conducted.
Results: Each 10 nmol/L increase in 25-OH-D3 reduced the risk of positivity by 2% (substudy 1). Admitted patients who died were observed to have a ~13% reduction in 25-OH-D3 levels compared to patients without complications during admission (45.4 vs. 52.1 nmol/L). Finally, when vitamin D levels were studied in the different health stages of COVID-19 patients (substudy 3), a significant grading was found according to the order of individuals with negative PCR testing, >PCR positive who did not require admission >patients with uncomplicated admission >dead patients.
Conclusions: An association, not necessarily causal, has been observed between 25-OH-D3 deficiency and incidence, severity and mortality from COVID-19.

 DOI: 10.12890/2022_V9Sup1

AS05. EMERGENCY AND ACUTE CARE MEDICINE

1989 / #EV0388

DISSEMINATED INTRAVASCULAR COAGULATION IN THE COVID SETTING: A COMPLICATED CASE

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Case Description: 67 Year old female, asthmatic, is brought to the ER with progressive dyspnea, weezing, dry cough and myalgia with 10 days of evolution. On admission she was fully conscious and severely dyspneic at rest and unable to complete sentences. Had a 86% peripheric saturation, and a PaO2 of 47.5mmHg on ambient air, a BP of 130/72 mmhg and 97 bpm. Blood workout revealed leukopenia with neutrophilia, thrombocytopenia and an LDH of 714. The imaging of the lung by CT revealed bilateral gound glass opacities with retractil component in the upper lobes with 70% of lung parenchima affected

Clinical Hypothesis: The main diagnostic was billateral SARS-CoV-2 pneumonia with necessity of ventilatory support, being admitted in intensive care.

Diagnostic Pathways: The patient develop disseminated intravascular coagulation. This was an asthmatic patient with ARDS that required a difficult ventilattory management that caused three bilateral pneumothorax due to high airway pressure demands. Two of these events were hypertensive pneuthorax. Massive hemoptysis complicated ventilatory management. The patient needed prone positioning. During prone the patient develop a splenic laceration that caused an hemoperitoneum. Long mechanical ventilation correlated with multiple infectious complications namely necrotizing pneumonia, MRSA bacteriemia, E.Coli UTI and candidemia. hepatic and renal failure were also present The patient was discharged after a two month stay on ICU, maintaining a severe myopathy, a 2l oxigen demand, an hepatic cytolisis and a multifactorial anemia. The patient survived 6 month post ICU discharge.

Discussion and Learning Points: We describe a particularly difficult case of emergency medicine in the onset of COVID-19 disease with multiple complications that were successfully managed.

1174 / #EV0389

HEAT STROKE – NOT SUCH A MILD AFFAIR

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Case Description: 35-year-old male admitted to the emergency room after being found on a vineyard on a particularly warm summer day. Previous medical history of schizophrenia. At admission, the patient was unresponsive, hypotensive and tachycardic (BP 60/40 mmHg, HR 130 bpm); tympanic temperature 40ºC. ABG showed metabolic acidemia with hyperlactacidemia (lactate 6.0 mmol/L). Bloodwork showed acute kidney injury (Cr 3.5 mg/dL, Uuea 350 mg/dL), hypernatremia and hyperkalemia (Na+ 158 mEq/L, K+ 6.8 mEq/L), severe rhabdomyolysis (CPK 61,260 U/L, myoglobin 6272 ng/mL), elevated cardiac troponin (273p g/mL) and elevated procalcitonin (22ng/mL), with normal PCR levels. Cranial CT showed no signs of acute structural or vascular lesion, and EKG showed no abnormalities. The patient quickly presented multiple organ dysfunction, with immediate need for tracheal intubation and mechanical ventilation.

Clinical Hypothesis: Septic shock; myocardial infarction; acute ischaemic stroke; heat stroke.

Diagnostic Pathways: After adequate fluid repletion, bloodwork showed marked improvement in renal function and progressively lower CPK levels. Various blood, urine and CSF cultures were negative, and chest and abdomen imaging revealed no source of infection. The patient remained normothermic for the remainder of his stay and was eventually transferred to a general ward, and later discharged.

Discussion and Learning Points: High procalcitonin levels and hyperthermia could mislead the initial diagnosis and point to an infectious cause, however high procalcitonin levels can be seen in case of severe physiologic stress. This case highlights the importance of keeping in mind heat stroke as a cause of distributive shock, specially during warm weather and with high-risk patients for inadequate thermoregulation or adequate hydration, such as psychiatric patients as the one we present here.

 DOI: 10.12890/2022_V9Sup1

2064 / #EV0390

IS IT NECESSARY TO HAVE A STOMACH

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Case Description: Man, 56 years old, history of arterial hypertension, dyslipidemia and glaucoma. He was admitted at the emergency room with watery diarrhea (10 liquid expulsions/day) 3 days ago with abdominal discomfort, colic and fever. Objectively without neurological changes, hypotensive, febrile with an ear temperature of 39ºC, shivering, dehydrated. Analytically with increased inflammatory parameters, namely leukocytosis and hyperlactacidemia. It was considered septic shock due to gastroenteritis with multiorgan dysfunction: respiratory with type 1 respiratory failure, cardiovascular with refractory hypotension with need for vasopressor support, metabolic with metabolic acidosis and renal with AKIN 3 acute kidney injury. Image taken on admission with exuberant gastric distension causing diaphragmatic and cardiac compression, with dilatation of loops in the delegate.Regarding the etiology, the performed investigation showed positivity for campylobacter in the faecal microbiological.
Clinical Hypothesis: Septic shock, infectious disease, dehydratation.
Diagnostic Pathways: Medical history, objetive examination, microbiological of stool computerized tomography
Discussion and Learning Points: Gastroenteritis corresponds to a pathology commonly diagnosed in emergency services. The etiological diagnosis is often inconclusive or not made due to its usually benign and self-limited course. According to the existing bibliography, its etiology is mostly viral. *Campylobacter jejuni* is an important etiologic agent of acute bacterial diarrhea. Although most of these situations have a favorable and spontaneous evolution, it is essential to detect signs of seriousness that make imperative a rapid and effective treatment. The reported clinical shows a common pathology, however the presence of such exuberant and severe clinical manifestations is rare and makes the immediate treatment imperative.

862 / #EV0391

VENOUS THROMBOEMBOLIC DISEASE - WHEN PREDISPOSING FACTORS UNITE

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Case Description: A 25-year-old male, with no previous disease, came to the Emergency Department due to dyspnoea and left groin pain for 3 days, with previous general malaise and relative rest in the past week. He was merely febrile, with no cough nor expectoration. No congestive (HF) symptoms. No abdominal nor UTI symptoms. COVID-19 antigen was negative. 1st degree family history of repeated deep venous thrombosis (DVT) (mother during pregnancies). He was tachycardic (120 bpm, rhythmical) and O2 Sat. was 92% aa. Lung auscultation was anodyne. The physical examination only noted an enlarged left thigh, with erythema, oedema, heat and pain on extension. ABG showed hypoxemia with hypocapnia with normal pH. Bloodwork noted leucocytosis, gFR 54, 1.900 D-dimer, 95 TnI and 10 BNP. EKG showed a sinus rhythm with a Q and negative T in III. Chest Xray was non-descript. Lower left limb echo-doppler demonstrated a complete DVT of the left femoro-iliac axis. AngioTC showed a massive thrombosis of both pulmonary arteries at their bifurcation and indirect signs of right cardiac overload. Echocardiography established LV flattening (P overload) with ventricular interdependence and a dilated RV.
Clinical Hypothesis: High-risk pulmonary thromboembolism and extense DVT in a patient with no/low risk factors. Possible hereditary/acquired thrombophilia.
Diagnostic Pathways: Deferred study after withdrawal of VKA: - Positive Russell's Lupus Ac/Positive Silica - Protein S 51% (LIR 55%) Second study at 3 months, verifying results:
Antiphospholipid syndrome; PS deficiency (51%).
Discussion and Learning Points: In young patients (<50 yo), with unprovoked DVT, thrombophilia testing should be considered, particularly when there is a strong family history.

1595 / #EV0392

HEPARIN INDUCED THROMBOCYTOPENIA TYPE 2 (HIT TYPE 2) WITH PSEUDO-PULMONARY EMBOLISM SYNDROME IN HEMODIALYSIS PATIENT

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Case Description: 71-year-old patient in final stage of chronic renal failure with diabetic nephropathy was started hemodialysis treatment through a temporary central venous catheter (CVK). At the beginning of each hemodialysis patient received nadroparin 2850 IU anti Xa/0.3 ml and at the end of treatment CVK was filled with unfractionated heparin. Patient's condition was satisfactory with neat platelet values (320x10 /L), and twelfth day after start of hemodialysis treatmen arteriovenous fistula of left forearm

 DOI: 10.12890/2022_V9Sup1

was performed and thrombosized during the surgery itself. Day after this surgery, ten minutes after start of hemodialysis, cardiorespiratory syndrome developed in the patient with arterial hypotension, tachycardia, dyspnea and tachypnea that indicated a possible pulmonary embolism. Thrombocytopenia (43x10 /L) and elevated D-dimers 3.2 mg/L with neat acidobase status was found with no dynamics in terms of pulmonary embolism on radiological heart and lung findings, heart ultrasound and CT angiography of the pulmonary arteries. Further hemodialysis was performed with fondaparinux 2.5 mg on inclusion, and CVK was filled with citrate solution, after which general condition of patient was improved. After 4 days, the values of platelets and D-dimers were normalized.
Clinical Hypothesis: We suspected HIT type 2 embolism clinically manifested by pseudo-pulmonary syndrome.
Diagnostic Pathways: HIT type 2 was proved with following: ID-PaGia-Heparin PF4 HIT POSITIVE (3+) and ELISA-HIT POSITIVE (high reading).
Discussion and Learning Points: HIT type I is a harmless pharmacological phenomenon. HIT type II can be a cause of significant morbidity and mortality and is most often caused by an immune response to platelet factor 4 (PF4) and heparin complexes.

2120 / #EV0393

OSBORN WAVE ON THE ELECTROCARDIOGRAM: A SIGN OF HYPOTHERMIA

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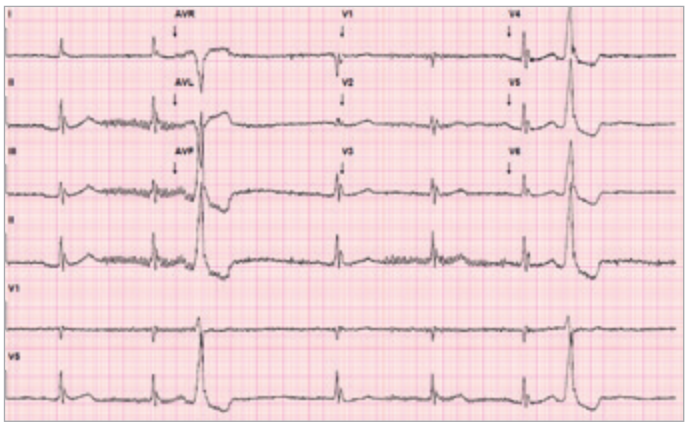
Case Description: An 81-year-old male was admitted to the Emergency Department (ED) in January due to altered mental status and bradycardia. He had a history of cervical myelopathy, that underwent decompression surgery, with postoperative complications and recent hospital discharge. He underwent observation in the ED in the previous week due to hypothermia, which completely resolved after external warm-up. On observation, he was alert but with no verbal response, bradycardic and had a tympanic temperature of 29.5°C and external signs of poor hygiene.
Clinical Hypothesis: We hypothesized moderate hypothermia in an elderly patient with a previous spinal cord injury and precarious social situation; other causes of hypothermia were also investigated.
Diagnostic Pathways: The EKG showed Osborn waves (Figure). The blood tests showed normoglycemia and normolactacidemia, normocytic normochromic anemia; renal and thyroid function within normal limits, C-Reactive Protein of 13.3 mg/L; type II urine showed leukocyturia and nitrituria. A recent Cranioencephalic computed tomography revealed no acute injuries. External heating and empirical antibiotic therapy due to the changes in the urinalysis were started. Social services were also activated. Despite the measures, the patient did not regain consciousness, and eventually died.
Discussion and Learning Points: Hypothermia can lead to changes in cardiac conduction, consequently increasing susceptibility to cardiac arrhythmias. One of the most characteristic electrocardiographic manifestations is the Osborn wave, which corresponds to an elevation of the J point. Certain populations, namely the elderly and patients with spinal injuries, are at greater risk of developing hypothermia and its complications, so adequate assistance should be provided, especially during the colder months.



#EV0393 Figure 1.

1288 / #EV0394

HYPERTENSIVE EMERGENCY - FROM EYE TO KIDNEY

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Case Description: 53-year-old male, obese, with arterial hypertension, previously polymedicated (suspended by the patient), presented with decreased visual acuity with 1 week of evolution. On admission he was hypertensive (215/125 mmHg) with peripheral oedema up to the knee. Fundoscopic examination showed acute hypertensive retinopathy, with papilledema, cotton wool exudates and haemorrhages. Electrocardiogram and chest radiograph were normal. Laboratory work showed acute renal failure with metabolic acidosis and proteinuria.
Clinical Hypothesis: Clinical findings suggested hypertensive emergency with end-organ damage. Patient was admitted for stabilization and evaluation of organic dysfunction. Visual loss resolved after blood pressure control. Renal impairment remained without evidence of hypervolemia, decreased urinary output or electrolyte disturbances.
Diagnostic Pathways: Due persistent kidney injury (pCr 4.5 mg/dL), the hypothesis of chronic kidney disease emerged. Etiological study showed elevated parathyroid hormone, hyperphosphatemia, vitamin D deficiency, macroalbuminuria, all

 DOI: 10.12890/2022_V9Sup1

compatible with chronic disorder. A renal biopsy was consistent with hypertensive nephropathy.
Discussion and Learning Points: Hypertensive emergency is defined as systolic blood pressure >179 mmHg or diastolic >109 mmHg and with evidence of new/progressive end-organ damage. Approach should target detection of dysfunction in one of those organs. Neurological findings, cardiovascular dysfunction and renal impairment are the most common findings. Clinical approach must include neurological and fundoscopic examination, neuroimaging, an electrocardiogram and chest radiograph, blood analysis including markers of myocardial injury, BUN, creatinine and electrolytes, and urinalysis. Blood pressure must not be reduced too quickly, to maintain organ perfusion and avoid ischemia with goal of reducing mean arterial pressure by 20-25% or diastolic blood pressure to < 110 mmHg over minutes/hours and with closed monitoring.

1838 / #EV0395

IS NOW IT? A CASE OF ACE-INDUCED ANGIOEDEMA

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Case Description: A 47-year-old caucasian female with a personal history of arterial hypertension, chronic kidney disease secondary to chronic glomerulonephritis, bronchiectasis and allergy to penicillin. Medicated two days before admission with an ACE inhibitor for hypertension, already prescribed two years before, but then discontinued due to orthostatic hypotension. Presented to the Emergency Department (ED) due to asymmetric edema of the tongue, associated with paresthesia, which appeared suddenly and progressively worsened within a few minutes. She denied dyspnea, dysphonia, dysphagia or the introduction of foods other than her usual diet. Objectively, she presented asymmetric tongue edema, with no other alteration in physical examination. Analytically, no relevant changes were detected.
Clinical Hypothesis: During her stay in the ED, it was prescribed vlemastine, hydrocortisone and methylprednisolone, without any improvement in her condition. After a few hours, she initiated progressively worse dysphagia, with no airway compromise. She was transferred to the emergency room and administered two doses of Icatibant, with complete resolution of the condition.
Diagnostic Pathways: She remained hospitalized in the Short-Term Unit for one day, having been discharged medicated with Amlodipine, with an indication to suspend Lisinopril and with an outpatient appointment for Immunoalergology.
Discussion and Learning Points: Angioedema caused by ACE inhibitors is a rare complication and should be addressed in the context of ER, as it becomes potentially fatal in case of airway obstruction. The treatment of underlying diseases must include the use of another pharmacological class, such as angiotensin receptor antagonists.

1654 / #EV0396

BACTERIAL TRANSLOCATION: MULTIDISCIPLINARY APPROACH TO SEPTIC SHOCK

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Case Description: 66-year-old woman with psychiatric history and hypertensive cardiopathy is brought to the ER because of 24-hour dizziness, intermittent abdominal pain, diarrhea, dysthermia and several presyncopal episodes. Vital signs: T 34 ºC, BP 70/49 mmHg, HR 101 bpm, RR 24, SpO2 96%, glucose 103 mg/dL, GCS 13 with mental confusion and drowsiness. Abdominal exploration showed distension with diffuse pain and positive Blumberg's sign.
Clinical Hypothesis: Septic shock with multiple organ dysfunction due to abdominal origin
Diagnostic Pathways: Analysis showed metabolic acidosis, renal failure, liver disfunction, increased C-reactive protein and procalcitonin. Aggressive fluid resuscitation and broad-spectrum antibiotic with piperacillin-tazobactam were initiated after blood and urine cultures. CT scan reported fecaloma in the recto-sigmoid transition, with inflammatory density increase of perirectal fat, no signs of perforation. After initial assessment, her evaluation and treatment were discussed multidisciplinary and ICU admission was decided to complete patient's resuscitation.
Discussion and Learning Points: Fecal impaction and chronic constipation are common side effects of neuroleptic treatment. Although infrequently, it may result in sepsis by bacterial translocation, defined as the invasion of intestinal bacteria through the gut mucosa to normally sterile tissues in the internal organs. Initial resuscitation with aggressive fluids and early broad-spectrum antibiotic therapy is recommended.

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 DOI: 10.12890/2022_V9Sup1

776 / #EV0397

BRASH SYNDROME DUE TO AMLODIPINE: A CASE REPORT OF AN UNDERDIAGNOSED MEDICAL CONDITION

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Case Description: BRASH syndrome, an acronym for bradycardia, renal failure, AV blockade, shock and hyperkalemia, has been recently described as a proper entity. Contrarily to each component alone, this syndrome represents the synergistic combination of both together creating a vicious cycle. Our patient is an 89-year-old female with history of essential hypertension treated with amlodipine 10 mg od. She was admitted due to a postprandial syncope.

Clinical Hypothesis: BRASH syndrome was hypothesized.

Diagnostic Pathways: EKG showed junctional rhythm. Atropine was given and heart rate recovered to 50 bpm. Blood pressure was normal. ABG on ambient air showed mixed acidemia: pH 7.26, pO2 94 mmHg, pCO2 54 mmHg, HCO3-act 24 mmol/L. Laboratory test results showed plasma creatinine of 1.74 mg/dL, blood urea of 140 mg/dL, hyperkalemia (6.5mEq/L), cardiac enzymes were normal. Cerebral CT had no lesions. After correction of the hydroelectrolytic disturbances the EKG showed normal sinus rhythm, 50bpm, pacemaker implantation was not necessary. After admission in an intermediate care unit no more syncopal events occurred, blood pressure was normal, heart rate 45-60bpm. She developed oliguric acute kidney failure but renovesical ultrasound was normal. Non-invasive mechanical ventilation was necessary for a short period. After five days, the patient was transferred to the general ward with plasma creatinine 1.24mg/dL and normalized kalemia. Furosemide was withdrawn and kidney function returned to baseline. Clinical evolution was favorable with support treatment. A final diagnosis of BRASH syndrome was established.

Discussion and Learning Points: This case highlights the importance of recognizing BRASH syndrome, an underdiagnosed and recently described clinical entity. Supportive treatment of each component usually leads to complete resolution.

136 / #EV0398

OESOPHAGEAL GIANT FOOD IMPACTION

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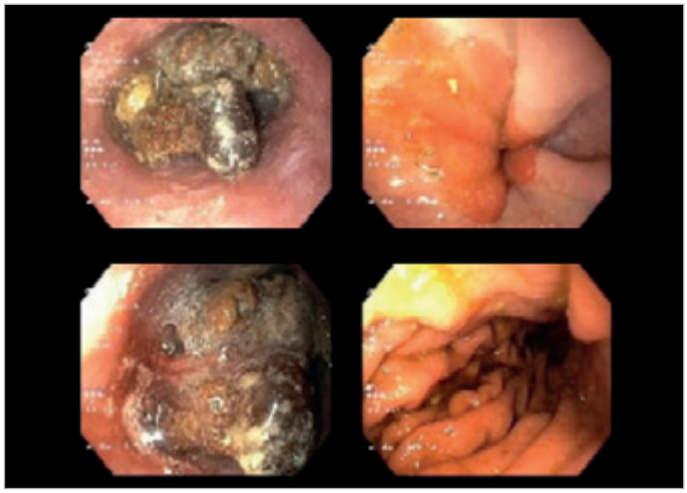
Case Description: A 67-year-old male, smoker, type 2 diabetic with hypertensive heart disease, using a biventricular pacemaker consult for dysphagia with foreign body sensation since the previous day. He reported no dyspnea or chest pain. No previous symptoms of gastro-oesophageal reflux. No previous choking. No general syndrome.

Clinical Hypothesis: The patient is admitted with suspected esophageal impaction.

Diagnostic Pathways: A full panel blood test and a chest X-ray were performed reporting no abnormalities.

An urgent gastroscopy was requested that showed a solid consistency mass with an elongated morphology completely impacted in the esophagus. It was impossible to remove it. Two days later, a new gastroscopy was performed under sedation and a 9 cm piece of meat was removed (Figure).

Discussion and Learning Points: In adults, food (typically meat) bolus impaction above a pre-existing esophageal stricture or ring is by far the most common cause of esophageal obstruction. Structural or functional esophageal abnormalities that increase the risk of foreign body/food impaction in the esophagus include diverticula, webs, rings, strictures, achalasia, and tumors. The typical clinical presentation is the acute onset of dysphagia. With CT, the shape, size, location, and depth of the impacted foreign body and the surrounding tissue can be visualized, which is important in determining treatment options and evaluating the risks of endoscopic management. For complete esophageal food impactions or those not relieved spontaneously, flexible endoscopy is first-line therapy for both diagnostic and therapeutic purposes We performed a CT and a gastroscopy two weeks after the submission that showed no pathology.



#EV0398 Figure 1A.

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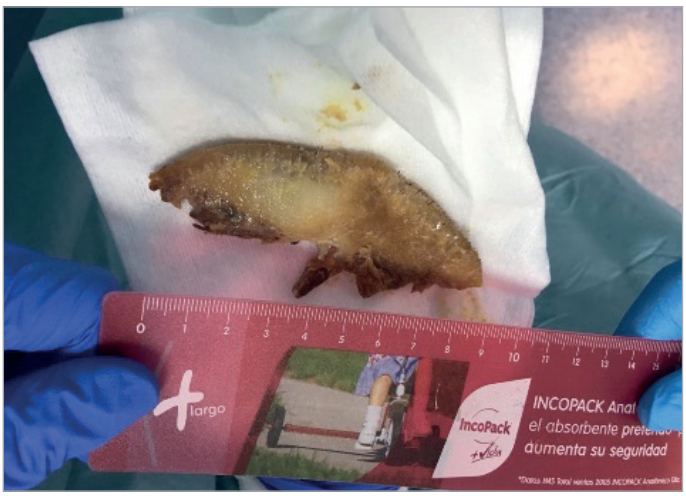

#EV0398 Figure 1B.

1731 / #EV0399

EFFECTIVENESS OF THE GRACE RISK SCORE 2.0 IN PATIENTS WITH ACUTE CORONARY SYNDROMES ACCORDING TO THE APPLIED BIOMARKER OF MYOCARDIAL INJURY

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Background and Aims: To evaluate the effectiveness of different myocardial injury biomarkers in prediction of ACS outcomes estimated by the GRACE 2.0 score.

Methods: 183 patients with verified ACS were enrolled. Creatine phosphokinase MB-fraction (CK-MB), cardiac troponin I, assessed by sensitive and high-sensitive methods (cTnI and hs-TnI) and heart-type fatty acids binding protein (hFABP) were evaluated at admission. Assessment of hFABP was performed with qualitative immunochromatographic point-of-care test "CardioFABP". Risk assessment of in-hospital and within 12-months death, as well as death and/or acute myocardial infarction (AMI) within 12-months was estimated by the GRACE 2.0 score with consecutive inclusion of different cardiac bioomarkers. The effectiveness of the prognostic scales was evaluated by the ROC analysis with comparison of the areas under the curve (AUC).

Results: AMI were diagnosed in 114 patients (62.3%), unstable angina – in 69 (37.7%). 10 patients (5.5%) died during the indexed hospitalization and 4 – during the follow-up period, 8 patients (4.4%) had new-onset/recurrent AMI. At admission, 94 patients (51.3%) had elevated hs-TnI, 90 (49.2%) – cTnI, 45 (24.6%) – CK-MB, 125 (68.3%) had positive "CardioFABP" test. There were no differences between the stratification of ACS patients by the GRACE 2.0 score into high and non-high risk groups in terms of complications ($p<0.05$). Similarly, there were no significant differences between AUC values of the biomarkers in terms of the endpoints estimated by the GRACE 2.0 score.

Conclusions: hFABP is non-inferior to traditional biomarkers of myocardial injury and may be used as the GRACE 2.0 scale component to stratify risks in patients with ACS.

1812 / #EV0400

SYSTEMIC LUPUS ERYTHEMATOSUS: THE IMPORTANCE OF A REGULAR FOLLOW-UP

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Case Description: A 83-year-old man presents to the emergency department (ED) with progressive shortness of breath and peripheral edema. He denied any chest pain, palpitations or syncopal symptoms, cough, nausea, vomit, diarrhea, dysuria as well as any other complaint. His past medical history was relevant for systemic lupus erythematosus (SLE) with secondary thrombocytopenia and antiphospholipid syndrome, diagnosed in 2012. He was on prednisolone 20 mg q.d., hydroxychloroquine 400 mg q.d. for the last 8 years with no regular follow-up. He had been hospitalized twice in the past six months due to respiratory and urinary infections resulting in worsening of the thrombocytopenia, having made multiple platelet transfusions and uptritated his dose of prednisolone.

Clinical Hypothesis: Upon initial evaluation, the most likely diagnosis was acute decompensated heart failure in a patient with active SLE.

Diagnostic Pathways: This patient presented with peripheral edemas, hypertension, acute respiratory failure and, not present 8 years before, cushingoid appearance, exophthalmia, and cataracts. His chest radiograph was compatible with community-acquired pneumonia, and relevant proteinuria (>500 mg/day) was noted during his evaluation. Broad spectrum antibiotics were initiated, intravenous diuretic treatment and antihypertensive drugs were administered. A 5-day protocol of intravenous human immunoglobulin was started, with recovery of platelet levels.

Discussion and Learning Points: SLE is a chronic autoimmune disease that can affect any organ with variable clinical features, including life-threatening disease. This case exemplifies the need for close monitoring of SLE patients to prevent and better manage disease and treatment-associated complications.

 DOI: 10.12890/2022_V9Sup1

2698 / #EV0401

NECROTIZING MYOSITIS: A STUDY OF THREE CASES

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Background and Aims: Myositis is a rare autoimmune disease affecting striated skeletal muscle and autoimmune necrotizing myositis (AINM) can be serious by its complications. Here we report 3 observations of AINM in order to state its evolutionary and therapeutic particularities.

Methods: It's a retrospective study of 3 cases admitted for proximal muscular deficiency in different levels of severity and for whome Electroneuromyogram showed a myogenic pattern. We collected for each interview data, clinical and paraclinical findings, and data of the follow-up.

Results: Case 1. A 26-year-old, with CPK 139 times normal (N), positive anti-SRP and necrotizing myositis on biobsy. The patient was put on high-dose corticosteroid therapy (HDCT). A clinical and biological myolysis and dysphagia were noted. He received 3 bolus of solumedrol (3BS) with relay by HDCT and methotrexate (MTX) 20 mg/week. The patient retained a deficiency. Rituximab was therefore recommended. However, partial loss of autonomy persisted.

Case 2. A 38-year-old, with dysphagia, CPK 28N, positive anti-SRP and on MRI a proximal myositis. The patient received 3BS relayed by HDCT, MTX , immunoglobulin (Ig), and rituximab. Evolution was favorable.

Case 3. A 66-year-old on statin, with CPK 300N and necrotizing myositis on biopsy. The patient was bedridden and had dysphagia. She was put on 3BS followed by HDCT, MTX and rituximab. CPK level decreased to 50N however the patient died from an aspiration pneumonia.

Conclusions: Autoimmune necrotizing myositis is a serious pathology that can be sometimes fatal by its complications. Early and aggressive therapeutic management including CTFD, MTX, Ig and Rituximab is essential. Despite these therapies, evolution is not always favorable.

1986 / #EV0402

SEROTONIN SYNDROME - A CASE REPORT

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Case Description: The authors report a case of a 66-year-old male, with history of hypertension, dyslipidemia and depressive symptoms, chronically medicated with antihypertensive drugs, statin, amitriptyline 25mg, buspirone 5 mg and zolpidem 10 mg. Admitted to the emergency room after intentional self-poisoning with an unknown amount of psychotropic drugs. On admission: Glasgow Coma Scale 9, polypnea (peripheral oxygen saturation 86%) and hyperthermia.

Clinical Hypothesis: Serotonin syndrome.

Diagnostic Pathways: Gastric lavage with activated charcoal was performed, as well as administration of antipyretics and oxygen. Laboratory findings showed creatinine 1.6 mg/dL, tricyclic serum levels (TSL) 828 ug/mL, hypoxemia and hyperlactatemia (3.4 mmol/L).Despite these measures, clinical status evolved with agitation, generalized tremor, tachycardia, hypertension and sustained fever and the patient was transferred to the intensive care unit (ICU). He underwent cold saline gastric and bladder lavage to reach temperature control and orotracheal intubation was later necessary due to respiratory failure and worsening mental status. After two days, sedoanalgesia and mechanical ventilation were successfully withdrawn and together with supportive care, clinical and analytical improvement was observed, with TSL 141 ug/mL at discharge.

Discussion and Learning Points: Serotonin syndrome (SS) is a potentially life-threatening condition associated with increased serotonergic activity in the central nervous system. It's especially seen in inadvertent interactions between antidepressant drugs (frequently selective serotonin reuptake and monoamine oxidase inhibitors) and it presents with a triad of mental status changes, autonomic hyperactivity and neuromuscular abnormalities. This syndrome has a favorable prognosis only if early recognition and correct complication treatment are made. Severe cases require admission into the ICU, which is why early diagnosis is imperative.

436 / #EV0403

AORTIC DISSECTION - FROM OBJECTIVE EXAMINATION TO THERAPEUTIC SUCCESS

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Case Description: Male, 61 years old. He went to the Emergency Department for right neck pain, of sudden onset, radiating to the hemithorax and ipsilateral lumbar region with 30 minutes of evolution, of 7/10 intensity, defeated as a "stab type"" asthenia generalizes, hyposthesia in the right lower limb (LL) and nausea with the same evolution time. On objective examination, TA in upper limbs (UL) right was 66/45 mmHg and UL left 112/60 mmHg, HR 53/min, mucocutaneous pallor, bradycardic, abdomen diffusely painful on palpation, cold extremities, pulses threadlike in the left UL and LL and absent in the right UL and LL with hyposthesia.

Clinical Hypothesis: Aortic dissection; acute coronary syndrome with elevated myocardial necrosis biomarkers; aortic insufficiency without dissection; aortic aneurysm without dissection.

Diagnostic Pathways: Complementary diagnostic exams: analytically with no increase in myocardial necrosis biomarkers; Chest CT showing a dissection of the thoracic aorta starting at the root and extending along the abdominal aorta to the common iliac arteries bilaterally, also involving a left renal artery and celiac trunk.

DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: Given the diagnosis of aortic dissection, the patient was transferred to the Cardiac Surgery Service. In the case of a medical emergency, the diagnosis of delay increases the probability of unfavorable outcomes. This case reflected that although we are in an age of diagnostic technology, objective examination is still the gold standard of the medical approach.

590 / #EV0404

AN IMPORTANT ROLE OF TRANSTHORACIC ECHOCARDIOGRAPHY IN PATIENT WITH ACUTE HEART FAILURE AFTER STEMI

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Case Description: This case-report demonstrates the patient with AMI complicated by the development of AHF and shows the importance of echocardiography as a diagnostic tool and a monitor of haemodynamic parameters during the inotropic therapy.
Clinical Hypothesis: Patient X was admitted to our clinic due to suspicion of NSTEMI. After admission he had ventricular fibrillation, was defibrillated and successfully resuscitated, after what a decision to perform an angiography was made. An acute occlusion of LAD was found and DES was placed. 16 hours after the PCI the patient become hypotensive, oliguric and had a dyspnoe at rest. It was suspected that patient had acute heart failure and it was decided to perform a TTE.
Diagnostic Pathways:
A TTE showed decreased EF, large area of anterior wall motion abnormality, pulmonary hypertension and elevated LV filling pressures. Lasix, nitroglicerine and dobutamine infusions were started, after what the patient condition improved: he became haemodynamically stable, his urine output was fine, he denied dyspnea at rest. TTE was repeated: there were no signs of PH, elevated JVP or LV filling pressure.
Discussion and Learning Points: Despite the great results, achieved in the treatment of acute myocardial infarction (AMI), AHF, including cardiogenic shock, still remains the main causes of mortality in patients with MI. The most available and informative method to determine the reason of the patient's deterioration is echocardiography. Echocardiography plays an important role in monitoring the parameters of cardiac output in patients in the inotropic and vasopressor support, as well as during the mechanical circulatory support.

448 / #EV0405

ESOPHAGEAL SUBMUCOSAL HEMATOMA WITH MALLORY-WEISS SYNDROME THAT CAUSED HEMORRHAGIC SHOCK AFTER ENDOVASCULAR SURGERY FOR AN UNRUPTURED CEREBRAL ANEURYSM

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Case Description: We recently experienced a case of esophageal submucosal hematoma with Mallory-Weiss syndrome that caused hemorrhagic shock after endovascular surgery for an unruptured cerebral aneurysm, after which we searched for other cases.
Clinical Hypothesis: We reviewed the medical records at our hospital since establishment. We also performed a literature review with keywords "esophageal submucosal hematoma," "Mallory-Weiss syndrome," and "Sengstaken-Blakemore (S-B) tube" to identify relevant studies or case reports, based on PubMed databases from January 1st, 2014 to July 31th, 2021.
Diagnostic Pathways: We found no other cases. A 73-year-old female underwent endovascular treatment for unruptured cerebral aneurysm. The patient received aspirin and clopidogrel before surgery and heparin during surgery. She was suffered from chest discomfort several hours after returning to intensive care unit, and developed hemorrhagic shock after massive hematemesis. A diagnosis of esophageal submucosal hematoma with Mallory-Weiss syndrome was made by endoscopic examination and computed tomography. Hemostasis was achieved by compression with the S-B tube and the hemodynamics became stable.
Discussion and Learning Points: We report the first known case of esophageal submucosal hematoma with Mallory-Weiss syndrome that caused hemorrhagic shock after endovascular surgery for an unruptured cerebral aneurysm. Temporary compression with the S-B tube is useful for hemostasis of esophageal submucosal hematoma with Mallory-Weiss syndrome.

2562 / #EV0406

METHEMOGLOBINEMIA AFTER USE OF TOPICAL ANESTHETIC CREAM

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Case Description: We present a 21-year-old woman with a history of obesity and migraines who was brought to the emergency

 DOI: 10.12890/2022_V9Sup1

department due to dizziness, vomiting and drowsiness. She had received microinjections in inferior limbs to "stimulate lymphatic drainage", for which she had applied EMLA cream (lidocaine and prilocaine) from waist to ankles, placing plastic wrap around it to increase its absorption. Physical examination only showed Glasgow score of 13 points, and multiple petechiae along both legs where microinjections where applied.
Clinical Hypothesis: Differential diagnosis included metabolic, endocrine, cardiopulmonary alterations, toxic ingestion and brain lesions.
Diagnostic Pathways: Blood test revealed compensated acidosis with mild hyperlactacidemia, methemoglobinemia of 2.8% and moderate hyperkalemia. Cranial CT didn't show any acute lession. Electrocardiogram and chest x-ray were normal.
Administration with high-flow oxygen therapy was started and arterial blood gases were performed at 1, 6, 12, 24 and 36 hours after arrival for monitoring metahemoglobin levels, showing peak levels of 12.7% and then progressive recovery, discharging the patient with levels under 1%.
Discussion and Learning Points: Methaemoglobinaemia represents iron's oxidation in hemoglobin, preventing it from effectively transporting oxygen, causing tissue hypoxia. The severity of the symptoms correlates with methaemoglobin levels, causing mental status changes, nausea, cyanosis, cardiopulmonary failure, seizures, and coma. It should be suspected when symptoms appear suddenly and oxygen saturation does not improve despite administering 100% oxygen. The blood colour characteristically can turn "chocolate-like". It's diagnosed by methaemoglobin levels in arterial blood over 2%. It can be hereditary (deficiency of glucose-6-phosphate-dehydrogenase) or acquired, including anesthetics, antibiotics, nitrites, metoclopramide, sepsis, sickle cell anemia, or eating spinach.

1065 / #EV0407

RESPIRATORY FAILURE DUE TO IONIC DISTURBANCES?

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Case Description: 77-years-old male with a history of deep vein thrombosis due to factor V of Leyden and multiple myeloma with bone lesions for which he had recently received treatment with intravenous bisphosphonates. He consulted the emergency department for sudden dyspnoea and muscle spasms in the abdominal wall 48 hours after administration of bisphosphonates. Examination revealed respiratory failure with normal pulmonary auscultation.
Clinical Hypothesis: When faced with acute respiratory failure, and especially in a patient with a history of neoplasia and thrombophilia, pulmonary thromboembolism must be ruled out. Once the screening is performed, we must always pay attention to other possible antecedents and data compatible with potentially treatable aetiologies.
Diagnostic Pathways: Laboratory tests showed a D-dimer of 15,130 pg/mL and an ionic calcium of 3.6 mg/dL. Echocardiography (normal) and angio-CT (no repletion defects in the pulmonary arteries or alterations in the pulmonary parenchyma) were requested. These findings led us to consider a possible diaphragmatic dysfunction secondary to hypocalcaemia. After correction of the calcaemia, the patient improves markedly, correcting both respiratory insufficiency and abdominal wall contractions.
Discussion and Learning Points: Hypocalcaemia secondary to bisphosphonate therapy is a common entity which is usually mild and asymptomatic. Symptomatic cases are rare because hypocalcaemia caused by inhibition of bone resorption tends to be compensated by increased PTH secretion. Thus, associated predisposing factors should be ruled out: hypoparathyroidism, vitamin D deficiency, renal failure, hypomagnesaemia and treatment with loop diuretics. There are documented cases of acute respiratory failure due to decreased diaphragmatic contractility because of altered excitation-conduction coupling, all of which responded to intravenous calcium administration.

1071 / #EV0408

HEMODYNAMIC STABILITY IN AORTIC DISSECTION

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Case Description: 55-year-old man. History of hypertension, atrial fibrillation, traumatic left rib fracture 6 months before. Active smoker. Taking Warfarin, Bisoprolol, Enalapril+Lercandipine. Came to emergency department with squeezing and pleuritic chest pain that has started 30 minutes before, while patient was at rest. The pain decreased by leaning forward and was not worse during palpation. Also jaw and abdominal radiation, nausea, vomiting, diaphoresis and cough. Denied bleeding, syncope, dizziness, visual alterations, dysuria and intestinal alteration. Objectively: Restless because of the intense pain. Sweating. Abdominal palpation with epigastric pain and radiation to dorsum. Blood pressure 156/80 mmHg, heart rate 80 beats/min. Cardiopulmonary auscultation without alterations. Symmetrical pulses and good perfusion.
Clinical Hypothesis: Acute coronary syndrome; tension pneumothorax; pericarditis; aortic dissection; pulmonary embolism; esophageal rupture; musculoskeletal chest pain.
Diagnostic Pathways: Electrocardiogram – atrial fibrillation, 58 beats/min, without other alterations. Analytically without alterations in hemoglobin, leukocytes, platelets, cardiac biomarkers and amylase/lipase. Chest/abdominal x-ray without anomalies. Difficult management of the pain, that was still intense even after taking paracetamol, metamizole, tramadol, morphine and diazepam. Maintained nausea and vomiting. Change in

 DOI: 10.12890/2022_V9Sup1

the original location of the pain, that became flank pain with anterior radiation. D-dimer 6734 ng/mL. Computed tomography pulmonary angiography - aortic dissection type I. The patient underwent surgery and is now recovered.
Discussion and Learning Points: Aortic dissection is uncommon, but it often presents acutely as a catastrophic illness. The hemodynamic stability is an atypical presentation. This report highlights that clinicians should be aware and think about all the possible hypothesis, so that early and accurate diagnosis/ treatment can be made.

2409 / #EV0409

HEMORRHAGIC SHOCK - A RARE CAUSE

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Case Description: A 77-year-old man was admitted to the emergency department with malaise. As he was being admitted he suffers a cardiorespiratory arrest. During the arrest the suspicion of pulmonary embolism is raised and thrombolysis with tenecteplase was administered. After 36 minutes of advanced life support, return to spontaneous circulation was achieved. A head CT had no identifiable lesions. Thoracic CT with angiogram revealed multiple contrast filling defects in the pulmonary artery branches bilaterally. A peri-hepatic right lenticular shaped collection was also identified and characterized as an hematoma. The patient was admitted to the ICU for post-cardiac arrest care. For the first few hours vasopressor support rate was stable, but after 4hours a rapid increase was needed despite fluid resuscitation. Bedside point of care ultrasound revealed a diffuse hypokinetic LV, no abdominal free fluid, with a pericapsular image of significant dimensions on the liver right lobe. An abdominal CT was performed that documented a significant increase in size in the possible hematoma and probable bleeding from one of the inferior branches of the hepatic artery.
Clinical Hypothesis: The diferencial diagnosis was myocardical infarctation and pulmonary embolism.
Diagnostic Pathways: The pathogenesis of pulmonary embolism is similar to that which underlies the generation of thrombus. Virchow's triad consists of venous stasis, endothelial injury, and a hypercoagulable state.
Discussion and Learning Points: This case puts in focus a rare post thrombolysis bleeding complication and how bedside imaging can be helpful.

2639 / #EV0410

EMPHYSEMATOUS CYSTITIS - IN THE ABSENCE OF KNOWN RISK FACTORS

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Case Description: A 83 year-old-female with medical story of arterial hypertension and dyslipidemia was admitted in intensive care unit with fever, diffuse abdominal pain and dysuria for the last two days. The clinical examination revealed hypotension, pale skin, fever and altered state of consciousness. Investigations showed anemia (Hb 8 g/dl), leukocytosis with neutrophils. Serum creatine was 2,1 mg/dl and urea 100 mg/dl. Urine culture revealed *Escherichia coli*. A abdomen-pelvic computed tomography was carried out which described intraluminal and intramural gas in the bladder with thickening of bladder wall. The patient evolved for septic shock and was transferred for to the department of surgery for radical cystectomy.
Clinical Hypothesis: The radiologic findings provide the most reliable diagnostic clues. Demonstration of intramural gas in the wall of the urinary bladder is the basis for the radiologic diagnosis of emphysematous cystitis.
Diagnostic Pathways: The pathogenesis of emphysematous is poorly understood. Emphysematous cystitis is a rare disease characterized by primary infection of the urinary bladder with gas-producing pathogens.
Discussion and Learning Points: Emphysematous cystitis is often associated with elderly women and is usually associated with immunosuppression, poorly controlled diabetes mellitus and urinary tract infection. We describe a case of emphysematous cystitis in an elderly, nondiabetic, nonimmunocompromised patient.

 DOI: 10.12890/2022_V9Sup1

2707 / #EV0411

SELF-POISONING WITH IMIDACLOPRID - A NEONICOTINOID INSECTICIDE

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Case Description: An 82-year-old male, with a history of chronic obstructive pulmonary disease and cigarette smoking, presented to our emergency room with a history of intentional consumption of 200 ml imidacloprid compound, 3 hours prior to admission. Upon arrival, he was agitated and reported dyspnoea. He denied consumption of other drugs or medications. On admission, airway was patent, no lesions were evident on oropharynx, respiratory rate 26/minute, pulse oximetry was 98% under 40% FIO2, a regular pulse rate (80/minute). On neurological examination, he had pupil diameter 2 mm bilaterally, no focal deficit but frequent muscle fasciculations in both arms and legs and rapid, shallow breathing. Glasgow Coma Scale of 15/15.
Clinical Hypothesis: A diagnosis of imidacloprid poisoning was made, gastric lavage was performed.
Diagnostic Pathways: He was later admitted in the ICU for supportive care. He progressively developed coma and narcosis within the first 24 hours, needing invasive ventilation. The clinical course evolved with progressive physiologic deterioration and multiple respiratory infections, culminating with death, 17 days after admission.
Discussion and Learning Points: Imidacloprid is a nicotinic acetylcholine receptor agonist inducing insects' neuromuscular paralysis and death. It has a higher binding strength to insect nerve receptors than to mammalian's. Though it is considered relatively safer to humans, acute poisoning may be fatal following large ingestion. It can involve a myriad of symptoms, including gastrointestinal, cardiorespiratory and neurological. Its treatment largely remains supportive in the absence of an effective antidote. Most patients developed only mild toxicity, but information in literature is scarce. We aim to emphasise this major health problem and indication for close monitoring.

2271 / #EV0412

RENAL ANGIOMYOLIPOMA WITH SPONTANEUS RUPTURE (WÜNDERLICH SYNDROME): A CASE REPORT

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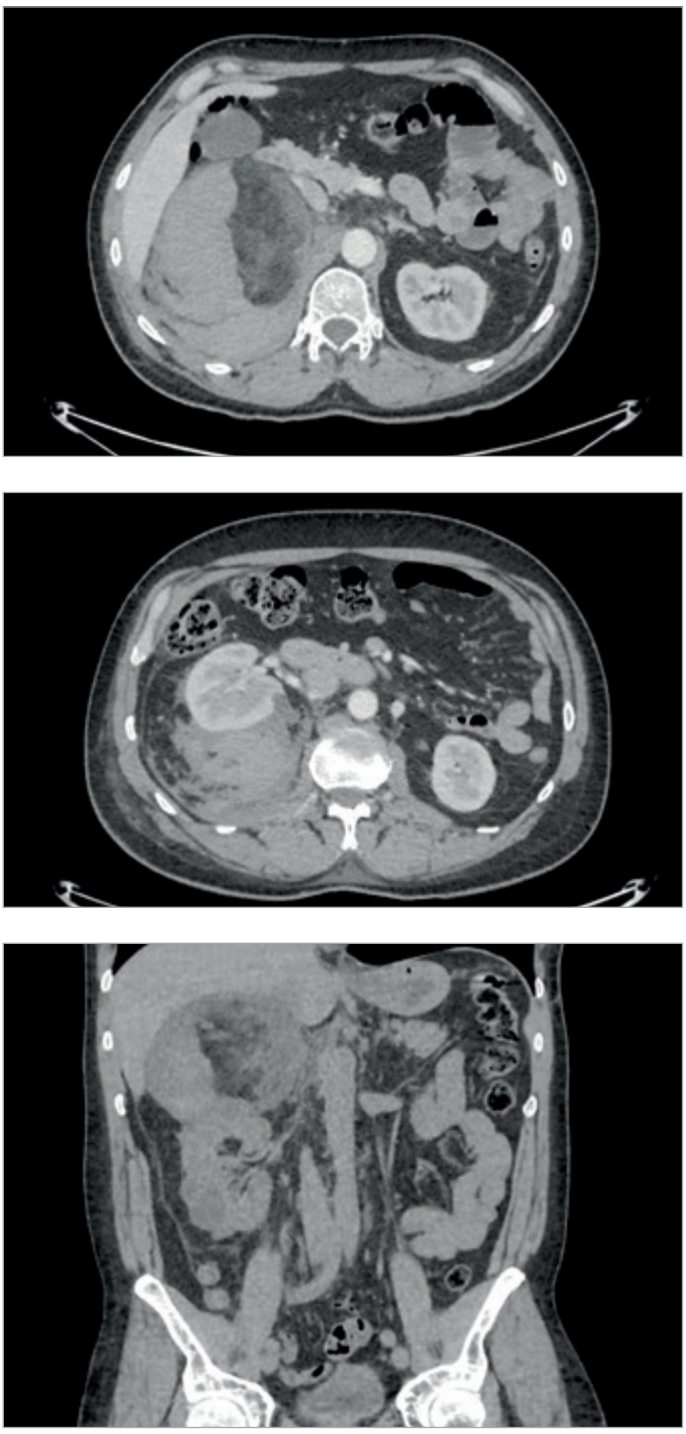
Case Description: A 57-year-old male without constitutional symptoms, came to the hospital with non-radiating pain in the right renal fossa with nausea and vomiting. Creatinine, liver profile, ionogram and procalcitonin were normal, but LDH (317 U/L), C-reactive protein (118.6 mg/L) and fibrinogen (731 mg/dL) were high. Anemia was founded and treated requering two hemoconcentrates transfusion, with normal leukocytes, platelets and hemostasis (prothrombin time 108%, INR 0.96). Ultrasound and CT scan was performed on Emergency Department, with a voluminous fatty right adrenal tumor associated with retroperitoneal hemorrhage that extends throughout the right retroperitoneal space, subperitoneal to the right inguinal region. Arteriography was performed to rule out active bleeding susceptible to embolization. Given the absence of active bleeding, a conservative approach was decided, with scheduled total nephrectomy.
Clinical Hypothesis: Renal angiomyolipoma (AML) with spontaneous rupture is a rare and potentially fatal entity. It should be considered when diagnostic imaging in the presence of renal mass with fatty areas and bleeding without calcification.
Diagnostic Pathways: AMLs are easy to diagnose with imaging due to unique features on ultrasound, CT (typically based on fat attenuation on CT, 92% accurate), and MRI that allow them to be differentiated from other renal masses.
Discussion and Learning Points: AML are currently classified as perivascular epithelioid cell tumors (PEComas), which originate from the clonal proliferation of cells epithelioid cells distributed around blood vessels. Clinical manifestations are not specific. Rupture of the vascular component can cause severe retroperitoneal hemorrhage, requiring surgical or endovascular treatment. Currently, this entity is managed by observation, angioembolization, and partial and total nephrectomy.

 DOI: 10.12890/2022_V9Sup1



#EV0412 Figure 1.

313 / #EV0413

ATYPIC CAUSA OF CHEST PAIN

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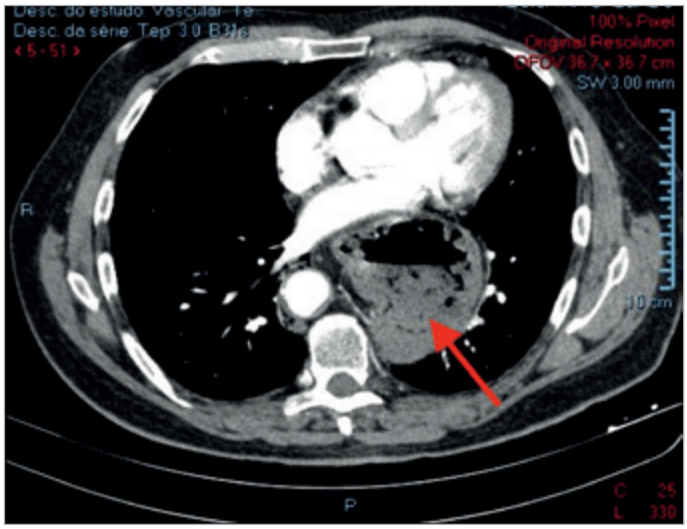
Case Description: We present a case of a 71-year-old man, with irrelevant personal history, who presented with a sudden onset of thoracic pain, discomfort type, central location and no other additional features.

Clinical Hypothesis: The patient was referred to via Coronary Green, with exclusion of acute coronary syndrome after performing a cardiac catheterization, having been referred to Internal Medicine to exclude venous thromboembolism due to a positive value of D-dimer.

Diagnostic Pathways: For clarification, angio-CT chest was performed: "No opacification defects are seen in the pulmonary arterial bed that can relate to TEP. Large hernia in the gastroesophageal hiatus, with passage of almost the entire stomach to thechest cavity..."

Discussion and Learning Points: We have attached 3 images demonstrating the atypical position of the stomach (red arrow) in an axial section.

(Figure 1), sagittal (Figure 2) and coronal (Figure 3).



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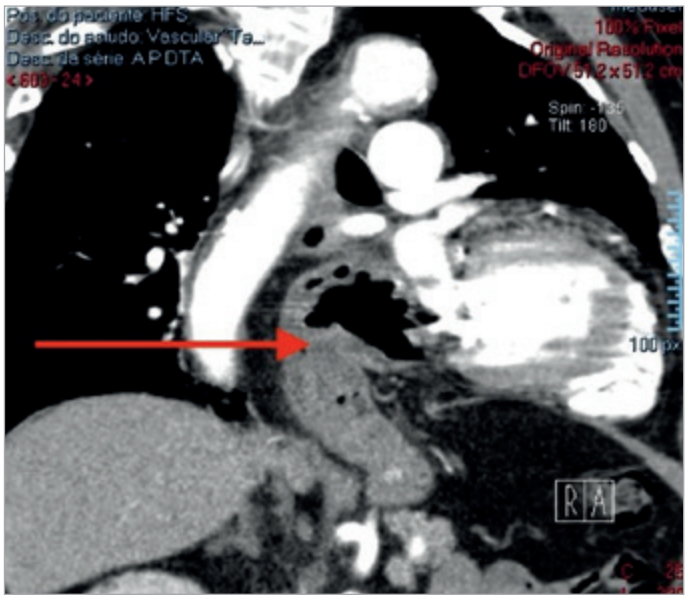
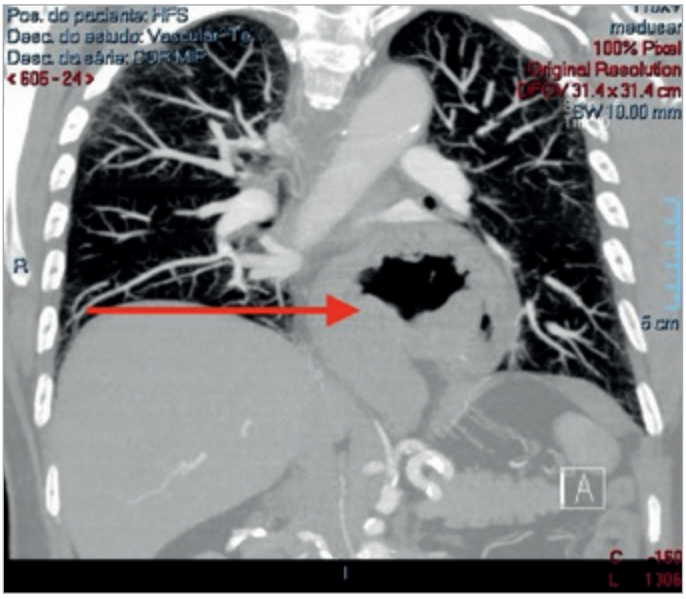


#EV0413 Figure 2.

DOI: 10.12890/2022_V9Sup1



#EV0413 Figure 3.

315 / #EV0414

ELECTROCARDIOGRAPHIC EVOLUTION IN ACUTE MYOCARDIAL INFARCTION WITH VENTRICULAR ARRHYTHMIA PERI-INFARCTION

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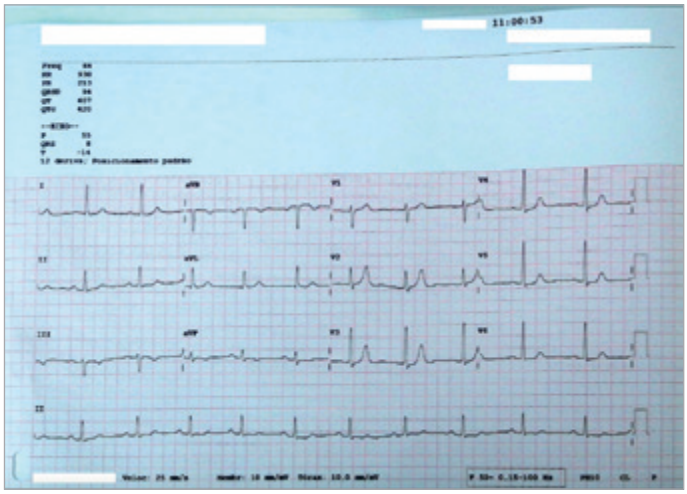
Case Description: We present a case of a 63-year-old woman with a history of type 2 diabetes mellitus, who went to the Urgency Department due to tight anterior chest pain with bilateral axillary irradiation with 72 hours of evolution.

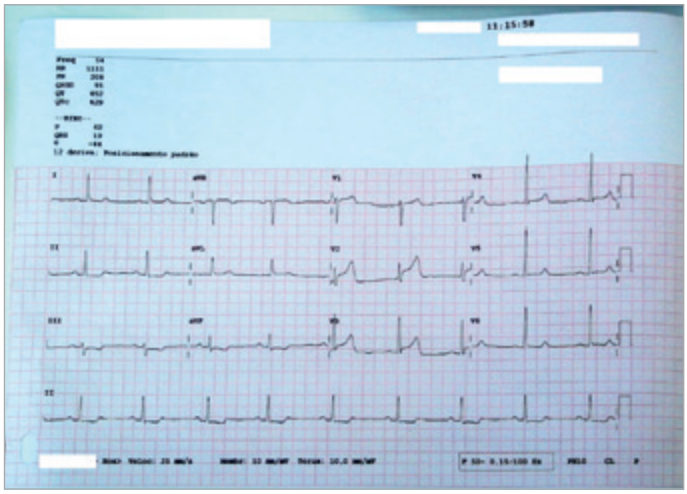
Clinical Hypothesis: The first electrocardiogram (ECG) in sinus rhythm without changes. Due to pain worsening, she repeated ECG (Figure 1), with T waves hyperacute cases evolving to ventricular tachycardia episode with reversal after cardiac massage.

Diagnostic Pathways: There are compatible changes with acute myocardial infarction with ST-segment elevation (Figure 2) with new ventricular tachycardia/ventricular fibrillation episode (Figure 3).

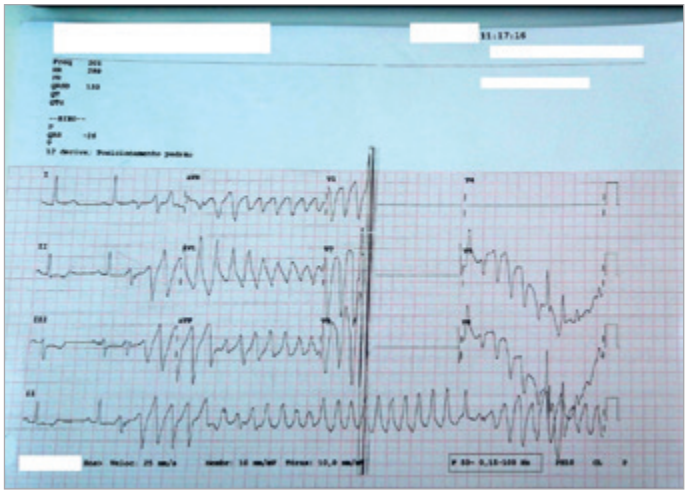
Discussion and Learning Points: Life-threatening ventricular arrhythmias, ventricular tachycardia and ventricular fibrillation, are complications serious cases of acute myocardiali nfarction with ST-segment elevation, although uncommon.



#EV0414 Figure 1.



#EV0414 Figure 2.



#EV0414 Figure 3.

DOI: 10.12890/2022_V9Sup1

2282 / #EV0415

WHAT A DRILL – A RARE CASE OF PNEUMOTHORAX AFTER DENTAL EXTRACTION

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Case Description: The authors describe a case of a 24-year-old male patient who presented to the ER with acute onset of cervical and thoracic pain which began during an inferior wisdom tooth extraction 3 hours before. He was tachycardic, eupneic and presented facial, cervical and supraclavicular subcutaneous crepitation.
Clinical Hypothesis: Subcutaneous emphysema as a complication of dental procedure.
Diagnostic Pathways: Imaging showed facial, cervical, supraclavicular and mediastinal emphysema accompanied by a thin layer of bilateral pneumothorax.
Discussion and Learning Points: The patient was admitted for clinical monitoring and oxygen therapy. The hospital stay was uneventful, he repeated the thoracic CT scan for control and was discharged after 5 days, referred to Stomatology and Internal Medicine appointments. Dental procedures are a rare cause of subcutaneous emphysema and pneumomediastinum and even more rare of pneumothorax, with only 93 cases published between 1968 and 2022. This complication is mainly due to the use of an air-turbine handpiece during the extraction of an impacted tooth. Early recognition and treatment are of extreme importance to avoid the air spread and some more serious complications like airway compromise, air embolism or infection. Diagnosis must be suspected in the presence of crepitation, dyspnea and chest pain after a dental procedure. Mild to moderate cases usually only need surveillance, although there is some evidence that oxygen 100% through a face mask helps faster air reabsorption.

985 / #EV0416

SPONTANEOUS RUPTURE OF THE SPLEEN- WHEN THE CAUSE REMAINS UNKNOWN

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Case Description: Female, 53 years old, smoker of 20 pack-years, with no other relevant personal history, goes to the emergency services for renal colic refractory to expulsive therapy, with 10 days of evolution. The echography is repeated and a right pyelocalicial abscess adjacent to the right ureter was found. A right percutaneous nephrostomy was placed and the procedure was uneventful (this procedure was done in another hospital). Upon return, the patient referred pain in the upper quadrants of the abdomen which had started during transport. Denied any type of trauma during transport. Given that the patient had no signs of clinical instability, nor signs of alarm on physical examination (namely defense or belly in wood), we chose for hospitalization for continuation of care and intravenous antibiotic therapy.
Clinical Hypothesis: Peritonitis, mesenteric ischemia, kidney abscess.
Diagnostic Pathways: On first day of hospitalization, because anemia was detected (with the need for transfusion), a full CT scan was requested: it revealed a spontaneous total rupture of the spleen with abundant blood drainage to peritoneal cavity. The patient underwent total splenectomy, which was uneventful, and the patient was later discharged without further complications.
Discussion and Learning Points: The spleen is an extremely vascularized organ, with a blood flow of about 350 l of blood per day, so its rupture has important hemodynamic consequences. Spontaneous rupture of the spleen is a rare event, but with associated mortality, given the frequent delay in diagnosis. Classically associated with thoracic and/or abdominal trauma, it should be searched through the Imaging techniques, namely point of care ultrasound.

752 / #EV0417

ANTIVITAMIN K HAEMORRAGIC EVENTS OF UNUSUAL LOCATION: A CASE REPORT.

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Djillali Belkhenchir El Biar ex Birtraria, Medecine Interne, El Biar, Algeria

Case Description: Haemorrhagic events with anti-vitamin K (AVK) drugs are mainly soft tissue haematomas. Although obstruction of the upper airways by a sublingual haematoma has been reported, unusual localisations can occur, as in our patient. An 81-year-old female patient, followed for thyroid and adrenal insufficiency for 20 years on replacement therapy, ACFA for 04 years on warfarin, was admitted to the emergency department for management of a AVK accident (INR 21) having occurred following concomitant oral miconazole for thrush 10 days earlier. On admission, the patient was conscious, polypneic (26 cycles/min).
Clinical Hypothesis: Mucocutaneous examination revealed multiple bruises on both upper and lower limbs, on the chest, and a haematoma of the floor of the mouth and uvula causing limited mouth opening.
Diagnostic Pathways: After administration of vitamin K and corticosteroids, the clinical course was favourable, marked by a complete and rapid regression of the haematoma.
Discussion and Learning Points: AVKs are an attractive therapeutic class, but source of hemorrhagic accidents. The clinical expression of the latter is polymorphous, explaining the hidden facet of certain unusual locations.

 DOI: 10.12890/2022_V9Sup1

1642 / #EV0418

EPIPLOIC APPENDAGITIS, AN UNCOMMON CAUSE OF ACUTE ABDOMINAL PAIN

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Case Description: 47-year-old caucasian male, past medical history relevant for hypertension, dyslipidemia, obesity and obstructive sleep apnea, is admitted to the emergency department for a 12h history of acute constant right lower quadrant (RLQ) abdominal pain associated with nausea and diarrhea. The patient was afebrile and physical examination showed RLQ tenderness and guarding and positive Blumberg and Rovsing sings.
Clinical Hypothesis: Due to the clinical presentation and physical findings appendicitis was strongly suspected.
Diagnostic Pathways: Laboratory findings were only remarkable for a slightly elevated C-reactive protein. Abdominal ultrasound revealed altered fat echogenicity in the RLQ, but the appendix was not visualized. Abdominal CT showed an oval shaped 3x1.5 cm fat density paracolic mass suggestive of epiploic appendagitis with discrete cecum and ascending colon wall thickening. The patient was discharged and treated as an outpatient with a short course of anti-inflammatory drugs and reported complete resolution of symptoms at follow up appointment.
Discussion and Learning Points: Epiploic appendagitis is a rare, benign and self-limiting condition resulting from inflammation of the epiploic appendages. Clinical presentation often mimics acute appendicitis or diverticulitis and epiploic appendagitis is usually diagnosed incidentally in patients undergoing imaging for acute lower abdominal pain and is most often managed conservatively. Correct diagnosis of this entity prevents unnecessary hospitalizations, antibiotic therapies and surgical interventions.

2268 / #EV0419

AEROPORTIA AND INTESTINAL PNEUMATOSIS: UNEXPECTED FINDINGS

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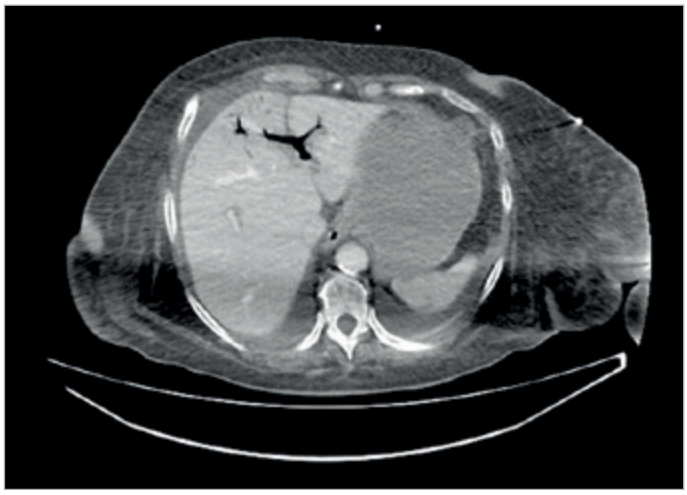
Case Description: An 84-year-old woman with a history of hypertension, type 2 diabetes mellitus, cerebrovascular disease, and stage V chronic kidney disease was admitted to the intensive care unit after surgical debridement for necrotizing fasciitis. She was started on hyperbaric oxygen therapy. She developed severe constipation despite extensive laxative therapy with no defecation for twelve days. On her thirteenth day of admission, she deteriorated, and a computerized tomography scan was ordered which showed extensive aeroportia, ileal distension and pneumatosis intestinalis. Despite extensive atherosclerotic disease in visceral vessels, no evidence for active ischemia was found. The patient's condition worsened, and she died the following day. Hypoperfusion due to intestinal distension related to constipation was the probable triggering factor. Constipation is a negative prognostic marker in intensive care units.
Clinical Hypothesis: Hypoperfusion due to intestinal distension related to constipation was the probable triggering factor.
Diagnostic Pathways: A computerized tomography scan was ordered which showed extensive aeroportia, ileal distension and pneumatosis intestinalis. Despite extensive atherosclerotic disease in visceral vessels, no evidence for active ischemia was found (Figure).
Discussion and Learning Points: Constipation is frequently overlooked in intensive care but is a negative prognostic marker. Complications following prolonged constipation should be addressed preemptively.
Aeroportia, ileal distension and pneumatosis intestinalis are uncommon complications from prolonged constipation.



#EV0419 Figure 1.

1109 / #EV0420

OMI GOD, IT'S MYOCARDIAL INFARCTION!

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Case Description: An 89-year-old man with a history of a valvular and ischemic cardiopathy [synchronous aortic biologic prosthesis insertion and coronary arterial bypass graft due to left anterior descendant artery (LAD) occlusion nine years ago] was admitted for a 3-weeks exertional dyspnea. He had already consulted health care services thrice for the same reason, always directly discharged. At presentation, he had no remarkable findings.
Clinical Hypothesis: Acute coronary syndrome (ACS).

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: An electrocardiogram revealed a normal sinus rhythm, a previous known complete right bundle branch block, new-onset ST-elevation in aVR, ST-depression in V4-V6 and hyperacute T waves in V1-V3. Laboratory values revealed Troponin I (0.86 ug/L) and NTproBNP (4896 pg/ml) elevation. A transthoracic echocardiogram revealed mild systolic left ventricular function. An ACS with non-ST-elevated myocardial infarction (NSTEMI) was admitted, besides electrocardiographic suggestion of occlusion myocardial infarction (OMI). A late catheterization was performed, revealing a >90% right coronary artery stenosis, and a percutaneous coronary interventions (PCI) was finally performed with success.
Discussion and Learning Points: ACS caused by OMI are potentially treatable events with PCI. A STEMI is classically represents OMI, besides being an imperfect surrogate. Under the STEMI/NSTEMI dichotomic paradigm, up to 30% ACS classified as NSTEMI are missed OMI. The OMI/nonOMI classification encompasses both STEMI and STEMI-equivalents, being a more accurate way of stratifying ACS that require PCI. In our clinical case, ACS due to OMI was repeatedly misdiagnosed and classified as NSTEMI along the 3-weeks course. Therefore, we urge the medical community not to overlook STEMI equivalents and OMI in order to better rationalize urgent treatment.

1730 / #EV0421

DE WINTER IS COMING

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Case Description: A 55-year-old man with arterial hypertension, diabetes and dyslipidemia, was admitted with a 15-days onset oppressive thoracic pain. At admission, he had no other remarkable findings. The pain resolved with analgesia.
Clinical Hypothesis: Acute coronary syndrome (ACS).
Diagnostic Pathways: An electrocardiogram (ECG) revealed a ST depression with peaked T waves in V3-V6 along with a ST elevation in aVR, suggestive of a de Winter pattern (unnoticed at the time). Laboratory work revealed a normal potassium and a discrete troponin I (TnI) elevation (0.19 ug/L). The pain reemerged 2h later. A second ECG revealed a ST segment elevation from V2 to V6. The TnI was 131 ug/L. An urgent catheterization (0.5-1h later) revealed a thrombotic occlusive lesion in the proximal left anterior descendent artery and an angioplasty (PCI) was successfully performed. An echocardiogram post-PCI revealed a de novo global systolic disfunction with reduced ejection fraction.
Discussion and Learning Points: Myocardial infarcions are classically dichotomized in ST segment elevation MI (STEMI) and non-STEMI (NSTEMI). However, 25-30% of NSTEMI may have critical lesions. The Occlusive Myocardial Infarction (OMI) classification encompasses STEMI and STEMI equivalents, being a more accurate and quickly way of identifying OMI. The "de Winter pattern" is a STEMI equivalent pattern which includes ST segment depressions followed by tall T waves in the precordial leads, often accompanied by ST elevations in aVR.
We present the case of an OMI where a "de Winter pattern" was initially unnoticed, contributing to its delayed diagnosis and maybe to the de novo reduced systolic function. Thereby, we urge the medical community not to overlook STEMI equivalents patterns.

 DOI: 10.12890/2022_V9Sup1

AS06. ENDOCRINE AND METABOLIC DISEASES

2602 / #EV0422

A RARE CAUSE FOR A COMMON DISEASE

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Case Description: A 52-year-old woman, with hypertension and previous hospitalizations due to heart failure (HF), presented to the emergency department with shortness of breath and orthopnea. On physical examination she was hypertensive and showed remarkable signs of hypertensive pulmonary edema (HPE). The blood gas analysis revealed hypoxemia. Treatment for HPE was initiated and common causes of congestive HF were excluded: namely anemia, ischemia, infection, thyroid disturbances. The echocardiogram showed moderate concentric ventricular hypertrophy and apex hypokinesis, suggesting stress cardiomyopathy. During hospitalization, the patient had episodes of flash pulmonary edema and the blood pressure profile remained high. Complementary evaluation was further performed in order to rule out potential causes of secondary hypertension. Obstructive sleep apnea, renovascular and renal parenchymal alterations, hyperaldosteronism and thyroid disturbances were excluded. The patient had an adrenal nodule, known for 2 years, without previous study. The functional study of the nodule revealed a pheochromocytoma. She underwent surgical removal and in the postoperative period it was possible to reduce the antihypertensive medication, keeping normal blood pressure values, without new HPE episodes.

Clinical Hypothesis: Hypertensive cardiomyopathy, secondary hypertension; pheocromocytoma

Diagnostic Pathways: Blood test, echocardiogram, thyroid and adrenal function tests.

Discussion and Learning Points: Heart failure (HF) is a common illness adressed in internal medicine with a major health impact worldwide. There are many associated conditions that we should recognize in an early stage in order to improve treatment outcomes. With this report, the authors intend to state that a prompt diagnosis of a secondary cause of hypertension is crucial, in order to prevent further organ damage and associated morbidity.

2624 / #EV0423

STRESS CARDIOMYOPATHY AND HYPERTENSIVE CRISIS: CASE REPORT

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Case Description: A 42-year-old woman, not allergic to medications, without toxic habits, with a history of non-insulin dependent type II diabetes mellitus and surgical interventions for cesarean section, in treatment with metformin and omeprazole. She went to the Emergency Services for chest pain and vegetative courtship, with a diagnosis of Tako-Tsubo syndrome. She was discharged after improvement in ventricular function and without finding a cause. But she went back due to gastrointestinal discomfort, hyperglycemia (320 mg/dL) and heart failure (NT-ProBNP 27,000 pg/mL). During admission, she presented with orthostatic hypotension, hypertensive crisis, supraventricular tachycardia and hyperglycemia, all of which were poorly controlled. After different tests, epinephrine 9,130 pg/mL and norepinephrine 20,321 pg/mL and a 6 cm computed tomography mass of the abdomen suggestive of pheochromocytoma were obtained, improving clinical symptoms by adjusting treatment appropriately.

Clinical Hypothesis: Takotsubo syndrome without a clear cause, together with poor control of symptoms (blood pressure, rhythm and frequency, sweating, metabolic alterations such as hyperglycemia...) should make us think of a triggering aetiology such as pheochromocytoma.

Diagnostic Pathways: For the diagnosis of pheochromocytoma, an imaging test (preferably abdominal computed tomography) and specific hormonal analytical controls (fractionated metanephrines and catecholamines in 24-hour urine) are necessary.

Discussion and Learning Points: The classic clinical triad of pheochromocytoma is headache, sweating and tachycardia, although we can find arterial hypertension (50%), weakness, orthostatic hypotension, cardiomyopathy (such as stress cardiomyopathy, for example). Its treatment consists of therapeutic adjustment with alpha-blockers, followed by beta-blockers and subsequent surgical removal.

 DOI: 10.12890/2022_V9Sup1

1033 / #EV0424

PRIMARY HYPERPARATHYROIDISM. WHAT CANNOT FAIL.

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Case Description: Male, 29-years-old. Personal history of nephrectomy and cystolithotomy in the context of kidney lithiasis and proximal fracture of the right tibia associated with a lytic lesion after an accident. Due to severe headaches and vomiting, he was referred to the emergency department. On examination, he is normotensive, normocardiac, apyretic, without neurological alterations. Laboratory tests revealed hypercalcemia of 17.2mg/dL, intact Parathyroid Hormone 1883.40 pg/mL and normal renal function. ECG is in sinus rhythm, thoracic radiogram showed dispersed micronodules, cranioencephalic tomography revealed diffuse bone irregularity.

Clinical Hypothesis: He was admitted for etiological investigation of primary hyperparathyroidism.

Diagnostic Pathways: The cervico-thorax-abdomino-pelvic tomography showed a tumor of the left mandible, probable ossifying fibroma and trabeculation changes "salt and pepper" and possible brown tumors - probable hyperparatyroidism jaw tumor syndrome. Bone biopsy describes a tumor rich in osteoclastic-type giant cells.

Discussion and Learning Points: It is important to study calcium metabolism in young patients with nephrocalcinosis and kidney stones. Primary hyperparathyroidism is a relatively common disorder that can cause significant complications, although often asymptomatic. Amongst hyperparathyroidism-related syndromes, hyperparathyroidism-jaw tumor syndrome is one of the least common and is associated with parathyroid tumors. Surgery is the treatment of choice.

2252 / #EV0425

LADA LATE ONSET: A WAKE-UP CALL

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Case Description: 78 year-old female with, at least, 22 years of history of type 2 diabetes mellitus (T2DM), besides primary hypertension and dyslipidemia, sent to diabetology consultation because of weight loss and poor metabolic control. There was an history of loss of 25 kilograms since diagnosis, BMI of 24 to 20kg/m^2 in the previous 4 years, and also an HbA1c increase from 6.7% to 7.3% in the same period. Regarding T2DM the patient was medicated with metformine alone 1000 mg, alogliptin+metformin 12.5 mg + 850 mg bid and dapagliflozin 10 mg id.

Clinical Hypothesis: In addition to T1DM and T2DM, there is an increasing need to be aware of other entities like Latent Autoimmune Diabetes of Adult (LADA). Weight loss, age <50 at diagnosis and acute symptoms are examples of frequent clinical features.

Diagnostic Pathways: At the first consultation, an analytical study was carried out, which revealed C-Peptide 0.74ng/mL, GAD Antibody >280UI/mL. Once the diagnosis of LADA was made, the patient was medicated with insulin glargine, oral anti-diabetic agents (OAA), and began flash glucose monitoring. In later visits the patient had better glycemic control with a time on range of 63%, after optimized therapy combining insulin glargine, insulin glulisine and OAA, with BMI 27kg/m^2 with other comorbidities controlled.

Discussion and Learning Points: LADA was diagnosed and aimed therapy allowed better management of the disease and clinical stability. The patient reported better quality of life and better adherence to therapy, with controlled cardiovascular risk factors. The diagnosisis vital so that insulin therapy can be started early.

1097 / #EV0426

WHERE IS THE CULPRIT? A CASE OF ACROMEGALY

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Case Description: We present a case of a 41-year-old female patient with history of type II diabetes mellitus (T2DM), hypertension and bilateral carpal tunnel syndrome. Referred to an Endocrinology consultation for presenting acromegaloid characteristics. She mentions an increase of the size of her shoes and her hands, prognathism, enlarged nose, macroglossia and amenorrhea. A computerized tomography showed an increase in volume of the pituitary gland with involvement of the optic chiasm.

Clinical Hypothesis: Considering the physical alterations, co-existence of T2DM, bilateral carpal tunnel syndrome and the presence of an enlarged pituitary gland, the diagnostic hypothesis of acromegaly was considered.

Diagnostic Pathways: A complete laboratory evaluation of the pituitary axis was requested, which accused an increase in growth hormone and somatomedine. A magnetic resonance (MRI) was performed and confirmed an expansive lesion with involvement of the optic chiasm. Transthoracic echocardiography was normal. The visual fields were also normal. She started therapy with 120 mg lancreotide. The patient underwent transsphenoidal excision of the pituitary adenoma. Post-surgery control MRI showed reduction in the nodular lesion but there was no biochemical improvement. It was decided to re-intervene for debulking and subsequent gamma knife. There was normalization of menstrual cycles.

Discussion and Learning Points: The diagnosis of acromegaly is

 DOI: 10.12890/2022_V9Sup1

a clinical challenge, mainly because many of its manifestations and co-morbidities are common to other pathologies. A complete clinical history is essential for the timely diagnosis and for the rapid initiation of targeted therapy, with a reduction in morbidity and mortality associated with the disease.

2526 / #EV0427

WHAT CAN GO WRONG

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Case Description: A 57-year-old woman was evaluated at the emergency department for paraesthesia in both hands and feet and severe pain in the hands. She reported being unable to move her hands. From the evaluation, tetany with internal rotation of both hands was evident, as well as a surgical dressing in the anterior cervical region. When questioned the patient mentioned to had gone under total thyroidectomy 2 days ago at another hospital.

Clinical Hypothesis: Hypocalcaemia due to postoperative hypoparathyroidism.

Diagnostic Pathways: The diagnostic hypothesis of hypocalcaemia was confirmed by the arterial blood gas analysis. Electrocardiography showed normal QT interval. Calcium gluconate infusion was immediately initiated and the patient was admitted to an intermediate care unit. Laboratory results showed severe hypocalcaemia, low parathyroid hormone level and normal thyroid function. Intravenous supplementation was necessary for 7 days with complete resolution of symptoms. After being discharged, the patient maintained the need for calcium and vitamin D supplementation.

Discussion and Learning Points: Postoperative hypoparathyroidism is the most common complication of thyroidectomy, caused by the disruption of the blood supply to parathyroid glands, from their damage or even due to their accidental excision. Despite hypoparathyroidismbeing a frequent consequence, there are no defined guidelines related to the right timing to start supplementation (prophylactic/therapeutic). The authors highlight this case due to its gravity and the possible consequences arising from severe hypocalcaemia. Clinicals must be aware of this diagnosis and educate patients for early recognition of symptoms. In most cases hypoparathyroidism is temporary, and the recovery occurs in 6 months, however, in some cases it becomes permanent.

456 / #EV0428

ANEMIA IN THE PATIENT WITH CHRONIC KIDNEY DISEASE. DO THESE PATIENTS RESPOND TO FERROTHERAPY?

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Background and Aims: Learn the clinical profile of patients with chronic kidney disease (CKD) and anemia under follow-up in the Day Hospital of a regional hospital, as well as the response to different iron therapies.

Methods: Descriptive observational study that includes 36 patients diagnosed with CKD with anemia in Day Hospital between January 2014 and June 2021. Different analytical parameters were collected including hemoglobin, iron parameters, and glomerular filtration rate at baseline and three months after started treatment.

Results: Of the total of 121 patients analyzed, 36 (29.8%) were patients diagnosed with CKD. At the same time, 10 of these patients underwent treatment with sucrosominated iron (FeSu). Filtering rate mean glomerular (eGFR) at the beginning of the study was 44.3 ml/min/1.72m^2 and 3 patients required admission for exacerbated CKD among patients who were under treatment with iron salts. The mean hemoglobin at the beginning of the study was 8.25g/dL and ferritin 29.45 ng/mL. Three months after the start of treatment with FeSu, a marked improvement in analytical parameters was observed, increasing hemoglobin to 11.2 g/dL and ferritin 360 ng/mL, finding differences statistically significant in both variables ($p<0.001$). Renal function also presented improvement with a mean 3-month eGFR of 53, although these results did not reach statistical significance.

Conclusions: Three months after the start of treatment, hemoglobin and ferritin levels increased in the patients studied. Since an adequate iron treatment is essential prior to the initiation of EPO in patients with CKD, the FeSu seems to be a promising treatment alternative with good laboratory response in iron deficiency anemia.

 DOI: 10.12890/2022_V9Sup1

916 / #EV0429

OPSOCLONUS AS AN EXTREMELY RARE SYMPTOM OF NEWLY DIAGNOSED DIABETES MELLITUS

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Case Description: A 56-year-old woman with a clinical history of a previously treated stage II triple-negative breast cancer and chronic psychosis disorder appeared in emergency department mentioning vision problems and difficulty in standing and walking during the last 4 hours. The clinical examination revealed opsoclonus concurrently with gait and limb ataxia without other neurological deficits.

Clinical Hypothesis: Our clinical hypothesis included posterior circulation ischemic stroke, metastatic disease or paraneoplastic syndrome. Metabolic disorders, received medication responsible for these side effects and infection were also included in differential diagnosis.

Diagnostic Pathways: At the time of her arrival, blood sample was received and our patient underwent brain and thorax CT scan with intravenous contrast and also lumpar puncture with unremarkable results, including negative anti-Ri antibodies and viral examination. No medication that could cause side effects similar to her clinical symptoms was received and infection was excluded. The blood tests results revealed high levels of blood glucose without metabolic acidosis. The patient was hospitalized and received treatment for hyperglycemia. During normalizing blood glucose levels, the symptoms were improving to complete recovery after some hours.

Discussion and Learning Points: Opsoclonus is a disorder of rapid, uncontrolled and involuntary eye movements, consisting of irregular, nonrhythmic, multivectorial (horizontal and vertical) and unpredictable conjugate movements without a saccadic interval. In adults, the origin could be most commonly idiopathic, paraneoplastic or infectious. It is very rare to present as a symptom of hyperosmolar hyperglycemic state and thorough clinical examination and differential diagnosis should be performed in all patients for any other cause to be excluded.

2597 / #EV0430

A RARE CASE OF NEWLY ONSET OEDEMA, HYPOKALEMIA AND DIABETES MELLITUS

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Case Description: A 56-year-old woman presented with a 3-month history of bilateral oedema of the lower limbs, polyuria, polydipsia and weight loss of 8 kg. She had been previously diagnosed with hyperlipidemia controlled with atorvastatin. At admission she had hirsutism, facial hyperpigmentation, a cervical adipose hump and exuberant oedema involving the lower limbs up to the thighs. Laboratory findings included a metabolic alkalosis, a severe hypokalemia (K+ 2.6 mmol/L) and an occasional glycemia of 527 mg/dL.

Clinical Hypothesis: The clinical picture suggested a Cushing's syndrome.

Diagnostic Pathways: The elevated 24h-urinary cortisol (23.062 mcg), salivary cortisol (2.660 ng/dL), ACTH (606 pg/mL) and the absence of cortisol suppression with dexamethasone 1mg and 8mg all confirmed the hypothesis of Cushing's syndrome, probably with ectopic production of ACTH. Further workup included a full body CT scan and a cranio-encephalic MRI which revealed a solid mass in the frontal area with invasion of the ethmoidal labyrinth and left orbital cavity. Given this, we considered the possibility of an olfactory neuroblastoma with a paraneoplastic Cushing's syndrome. Previous symptoms were reviewed, revealing a 2-year history of epistaxis of unclear origin. Biopsy of the lesion through a nasal approach confirmed the diagnosis. The patient was treated with metyrapone with clinical improvement of the metabolic abnormalities and was later referred to surgical mass excision followed by radiotherapy resulting in remission until the last follow-up.

Discussion and Learning Points: There are about 30 reported cases of Cushing's syndrome associated with olfactory neuroblastomas resulting from an ectopic production of ACTH, which emphasizes the rarity of this presentation.

480 / #EV0431

SYMPTOMATIC THIAMINE DEFICIENCY - A CASE SERIES

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Background and Aims: Symptomatic thiamine deficiency presents with one or more of the 3 clinical phenotypes: dry

 DOI: 10.12890/2022_V9Sup1

beriberi (sensory-motor neuropathy), wet beriberi (high output heart failure) and Wernicke encephalopathy. Deficiency is defined either as low thiamine level in serum (<28 ng/mL) or as low erythrocyte transketolase activity (not available at our laboratory). Hyperreflexia is uncommon in patients without Wernicke encephalopathy. We aimed to identify patients with low serum thiamine in our institution and to characterize the clinical phenotype of patients with thiamine deficiency.
Methods: We performed a retrospective review of all consecutive serum thiamine laboratory values from January 2018 to December 2020, and then reviewed all patients with a serum thiamine level <28 ng/mL.
Results: From 489 thiamine consecutive measurements, we identified 6 patients with thiamine deficiency: 5 adult women and a 14-year-old boy. In 5 patients, pyridoxine deficiency was also present (not measured in 1 patient). Four patients had neuropathy (confirmed with electromyogram in 2 patients). Three patients had Wernicke encephalopathy, two of which had hyperreflexia. One patient with neuropathy and without encephalopathy had hyperreflexia. One patient had heart failure clearly attributable to thiamine deficiency. Two patients died from unrelated causes. The remaining four had a full recovery after treatment.
Conclusions: Documented thiamine deficiency is rare in our population (2 cases/year). This may be underestimated, as some patients may be treated without laboratory confirmation. Clinicians should have a high index of suspicion as symptoms are often reversible. Concomitant pyridoxine deficiency is common, and should also be tested. Hyperreflexia may occur with or without Wernicke encephalopathy.

993 / #EV0432

ANTIDIABETIC TREATMENT IN PATIENTS ADMITTED TO A SECOND LEVEL HOSPITAL OF THE ANDALUSIAN HEALTH SERVICE

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Background and Aims: To know the drugs prescribed in diabetic patients requiring admission to the hospitalization ward of Internal Medicine (PHMI), as well as the management of treatment at discharge.
Methods: We conducted a retrospective descriptive study whose unit of analysis was the histories of diabetic patients admitted to PHMI between January 1, 2021 and May 30, 2021.
Results: A total of 55 diabetic patients with a mean age of 73.97 years were included. The 54.3% were men. In addition, 25% were dependent for most basic activities of daily living. The mean value of the last glycosylated hemoglobin (HbA1c) was 7 mg/dL (± 1.32). Regarding their treatment, up to 57% had metformin (MTF), 40% had some DPP-4 inhibitor (iDPP-4), 31% insulin, 20% sulfonylureas, 8% some sodium-potassium cotransporter inhibitor (iSGLT2) and 5% some GLP-1 agonist (aGLP-1). During the hospitalization, only 17% of patients underwent HbA1c testing, when up to 51% of them had had their last test more than 3 months before. According to major cardiovascular events, 34% of patients had ischemic heart disease, 28% had one cerebrovascular event, and 14% had peripheral artery disease. Of these patients, 50% had MTF prescribed, 30% had sulfonylureas, 40% had an iDPP-4, 25% had insulin, and no iSGLT2 or aGLP-1 had been prescribed. There were 17% of patients with heart failure with reduced ejection fraction, none of whom were prescribed an iSLGT2 at discharge.
Conclusions: Admission should be an opportunity to optimize the treatment of diabetic patients, adjusting to the patient profile and to the latest clinical practice guidelines.

628 / #EV0433

EFFECTS OF COVID-19 LOCKDOWN ON AN ELDERLY POPULATION, YOUNG-OLD VS OLD-OLD, DURING A LIFESTYLE MODIFICATION PROGRAM

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Background and Aims: The SARS-CoV-2 pandemic led to lockdowns which affected the elderly, a high-risk group. Lockdown may lead to weight gain due to increased food intake and reduced physical activity (PA). Our study aimed to analyze the impact of lockdown on a metabolically healthy overweight/obese elderly (MHOe) population who were participating in a 12-month lifestyle intervention when lockdown was declared.
Methods: MHOe participants (65-87 years) were recruited to participate in a lifestyle modification intervention based on the Mediterranean diet (MedDiet) and regular PA. Participants were classified into two groups: young-old (<75 years) or old-old (≥75 years). Anthropometric and clinical characteristics, energy intake, and energy expenditure were analyzed at baseline and after 12 months of intervention.
Results: The final sample included 158 MHOe participants of both sexes (age: 72.21±5.04 years, BMI: 31.56±3.82 kg/m^2); 109 young-old (age: 69.26±2.83 years, BMI: 32.0±3.85 kg/m^2) and 49 old-old (age: 78.06±2.88 years, BMI: 30.67±3.64 kg/m^2). After 12 months of intervention and despite lockdown, the young-old group increased MedDiet adherence (+1 point), but both groups drastically decreased daily PA, especially old-old participants.

 DOI: 10.12890/2022_V9Sup1

Fat mass significantly declined in the total population and the young-old. Depression significantly increased (26.9% vs 21.0%, p<0.0001), especially in the old-old (36.7% vs 22.0%, p<0.0001). No significant changes were found in the glycemic or lipid profile.
Conclusions:
This study indicates that ongoing MedDiet intake and regular PA can be considered preventative treatment for metabolic diseases in MHOe subjects. However, mental health worsened during the study and should be addressed in elderly individuals.

895 / #EV0434

MITOCHONDRIAL PHENOTYPE COMPLEMENTATION IN METABOLICALLY HEALTHY AND UNHEALTHY ELDERLY POPULATION WITH OBESITY AFTER A LIFESTYLE MODIFICATION

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Background and Aims: Mitochondria form a dynamic network in balance essential for the proper functioning of cells. In obesity, type 2 diabetes mellitus (T2DM) and aging, a misbalance in this network is produced. Our objective was analyzed the impact of lifestyle modification (LSM) over 2 proteins involved in mitochondrial fusion (Mfn2 and Opa1) in elderly population with obesity, both metabolically healthy (MHO) and metabolically unhealthy (MUHO).
Methods: MHO and MUHO subjects (65-87 years) were recruited to participate in a LSM program based on the Mediterranean diet (MedDiet) and regular physical activity (PA). A mitochondrial study in PBMCs was carried out. The expression of Mfn2 and Opa1 was measured by Western-blot at baseline conditions and after 12 months of LSM.
Results: Elderly subjects with obesity (116 MHO and 32 MUHO) with 70.8±4.9 and 68.4±4.3 aged; [p=0.001] and BMI=31.5±4.2 kg/m^2 and 33.8±3.8 kg/m^2; [p=0.587] respectively, were recruited. After 12 months of LSM, both MHO and MUHO subjects increased the expression of both proteins after weight loss (≥5%); MHO: 1.11 times Mfn2 and 1.34 times Opa1; MUHO: 1.24 times Mfn2 and 1.18 times Opa1. In MHO, the expression of another large Mfn2 isoform was detected. However, in MUHO, two short Mfn2 isoforms and a more intense short Opa1 isoforms were found when the participants presenting T2DM and hypertriglyceridemia.
Conclusions: These results confirm the relationship between mitochondrial dynamics, obesity, T2DM and aging. A healthy LSM with weight loss, achieve recover Mfn2 and OPA1 levels for proper of mitochondrial functioning in MHO and MUHO elderly population.

99 / #EV0435

INCIDENCE OF HYPERLACTATEMIA IN PATIENTS TREATED WITH METFORMIN IN THE EMERGENCY AREA OF A REGIONAL HOSPITAL

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Background and Aims: To know the incidence of hyperlactatemia in patients treated with metformin who attend the Emergency Department of a regional hospital.
Methods: Retrospective observational study in a regional Hospital from January 2016 to June 2018. We analyzed all patients who come to the emergency room treated with metformin, and who are perform at least one lactic acid determination. We study demographics data, levels of lactate, presence of acidosis and renal failure defined as GFR <60 mL min 1.73 m^2 estimated by the MDRD-4 formula. In those patients with a GFR at admission of <60 mL/min/1.73 m^2, the GFR was analyzed and basal creatinine.
Results: We analyzed 9,283 emergency episodes of patients treated with metformin (10.6 emergency episodes/month/10,000 inhabitants). We detected 222 cases with lactate levels ≥2.7 mmol/L. In 56 cases, hyperlactatemia was associated with acidosis and renal failure, 17 of the which (30%) were diagnosed with MALA (5.4 cases/10,000 patients with metformin/year. Of these, 10 were admitted to the ICU requiring dialysis, with an overall mortality of 53%. The baseline glomerular filtration rates (GFR) of the treated patients, showing that 35% of those who presented hyperlactatemia, 53% of those with associated renal dysfunction and acidosis, and 76% of those who developed MALA had previous renal dysfunction.
Conclusions: Our study data confirm that a high proportion of the patients with metformin-associated hyperlactatemia had a baseline GFR <60 mL/min/1.73 m^2. Given the high associated mortality, we believe that precautions need to be taken in handling metformin in patients with renal dysfunction.

 DOI: 10.12890/2022_V9Sup1

196 / #EV0436

CLINICAL IMPACT AND MORTALITY ASSOCIATED WITH HYPERLACTATEMIA IN PATIENTS TREATED WITH METFORMIN ADMITED IN THE EMERGENCY DEPARTMENT

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Background and Aims: To know the clinical impact of hyperlactatemia in patients treated with metformin who come to the emergency room of a regional hospital.

Methods: Retrospective observational study in a regional hospital. All patients who come to the emergency room under treatment with Metformin are analyzed, and at least one determination of lactic acid is performed.

Results: 9283 emergency episodes of patients treated with metformin, corresponding to 4898 different patients, were attended. Of the 7283 patients who underwent FG, we found that in 8.8% it was <30 and in 37% between 30-60. We analyzed 383 patients in whom a lactate ≥2 mmol/L was detected.

In 94 (24.5%) the GFR at admission was <30 and in 157 (41%) it was between 30-60 . In 69 (18%) acidosis was detected.

The most frequent reason for consultation was infection in (236; 62%), followed by heart failure (19; 5%). Episodes of lactic acidosis with renal dysfunction were detected in 17 (4.4%) cases, of which 10 (2.6%) required dialysis. In 246 cases (64.2%) the patient required hospital admission, and in 76 of them (19.8%) ICU. Hospital mortality was 68 cases (17.8%), 12 of them in the emergency department .

Conclusions: Hyperlactatemia detected in the ER in patients with metformin is associated with a high rate of hospitalization requiring intensive care and high mortality, the main causes being infection, heart failure and different presentations of lactic acidosis associated with metformin. The high proportion of patients with moderate-severe renal dysfunction requires extreme caution in its use.

2102 / #EV0437

PRIMARY HYPERALDOSTERONISM AND HYPERTENSION - AN OLD ASSOCIATION OFTEN FORGOTTEN

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Background and Aims: Primary hyperaldosteronism (PA) is an important and crescent cause of hypertension. Studies reported a prevalence of PA closer to 20% in those resistant to therapy with 3 or more antihypertensive agents.

Methods: Case report.

Results: A 70-year-old man presented to the ED reporting asthenia and muscle cramps over the past 15 days. He also complained of palpitations, polyuria and polydipsia. Past medical history revealed a long-standing and difficult to control arterial hypertension (with 4 anti-hypertensive drugs) and diabetes mellitus with end organ damage (EOD). He had been under oral potassium supplementation for the last 3 months. Clinical examination was unremarkable. Initial investigation revealed potassium levels of 2.5 mmol/L. EKG showed no abnormalities. He was admitted for further investigation and treatment of refractory symptomatic hypokalemia. Plasma renin concentration, plasma aldosterone concentration and aldosterone-to-renin ratio were 0.8 pg/mL (N>2.19 pg/mL), 393.8 pg/mL (N<72.7 pg/mL), and >492 respectively. Other adrenal hormone levels were within normal limits. Abdomen and pelvis CT scan with contrast revealed a 17 mm hypodense nodule in the lateral limb of the left adrenal gland. PA diagnosis was made and therapy with oral spironolactone (100 mg daily) was started, with normal serum potassium levels and blood pressure at discharge.

Conclusions: PA represents one of the few treatable secondary causes of hypertension, so it should be ruled out in the presence of difficult to control hypertension and refractory hypokalemia. This case highlights the importance of the early diagnosis of this condition, often forgotten.

DOI: 10.12890/2022_V9Sup1

488 / #EV0438

THE EFFECT OF GLUCOCORTICOID THERAPY ON CARDIO-METABOLIC RISKS IN PATIENTS WITH MULTIPLE SCLEROSIS

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Background and Aims: Multiple sclerosis (MS) often requires usage of glucocorticoids (GC). Excess of GC may affect muscles, which increases mortality. This study evaluates the effect of GC therapy on muscle and cardiovascular disease (CVD) risk factors in patients with MS.

Methods: 45 patients (55.5% women), 37.8 (20-45) years, were examined. 51% received GC (methylprednisolone 3000-5000 mg, 3-5 days). MS duration was 5.9±1.2 years, the assessment by EDSS - 3.3±1.2. Muscle tissue was assessed by bioimpedance analysis, a chair-rising test, dynamometry. Glucose and lipid metabolism, blood pressure (BP), body mass index (BMI), waist circumference (WC), physical activity were evaluated. Statistical analysis was carried out using ""Statistica 10.0"". Normal distribution was tested by the Shapiro–Wilks test, $p>0.05$. A Mann-Whitney U-test, a t-test, $\chi 2$ test were used, $p<0.05$.

Results: Patients with GC had significantly higher BMI (28.56±5.02 vs 22.87±3.49 kg/m^2), WC (98 (66-123) vs 79.9±5.27cm), lower muscle mass (36.4 (35-38) vs 40.75±2.02 kg). A negative correlation between GC dose and a grip strength of the dominant hand among men was noted ($r=-0.88$, $p<0.0001$). 52% on GC had a normal WC. Comparing with others received GC, they were metabolic healthier with lower low-density lipoproteins (1.35±0.39 vs 1.39(1-3,32) mmol/l), systolic BP (132.3±15.7 vs 141 (100-165)), better handgrip strength (40 (25-47) vs 27±7.3 daN).

Conclusions: The negative effect of GC on cardiometabolic parameters in all patients with MS and muscle strength in men was confirmed. Metabolic healthier patients probably have a resistance to GC side effects, which may be determined genetically. It is promising for finding protective factors against GC.

158 / #EV0439

CONTRASTING ECONOMICS OF TYPE 2 DIABETES MELLITUS MANAGEMENT : USE OF GLARGINE U 300 IN SEVERE HYPERGLYCEMIA IN INSULIN NIEVE PATIENTS

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Case Description: Case A. 48-year-old female, Roti maker, known type 2 diabetes mellitus (T2DM) for 2 years presented with severe hyperglycemia BSL R 533 and HbA1c 9.9%. No evidance of Infection source, No and/or ketonuria, ketosis, severe dehydration. Not willing to be hospitalised due to financial issues. Case B. 42-year-old male, painter by profession, detected T2DM on 18/08/2021 with with loss and polyuria BSL F 426.3 PP 577.6, HbA1c 14.9%. No evidence of infection source, no ketonuria, ketosis, severe dehydration. Not willing to be hospitalised because of loss of job during COVID-19 pandemic. Both the cases, after fair discussion and training for SMBG, started on injections of glargine U300. Showed great reduction in glucose levels as well as clinical status..

Clinical Hypothesis: Indian scenario: post-covid stressful social status, disturbed individual and/or family economics, with new onset of T2DM, reluctance to hospitalisation due to fear of infection and financial difficulties and lack of insurance coverage due all of the above. It is very prudent to think and discuss sympathetically to offer the longer acting GEN 2 basal insulin and monitor them closely.

Diagnostic Pathways: T2DM management is helped by glargine U300 with lesser hypoglycemia risk.

Discussion and Learning Points: As I hear from the western world patients', where it is difficult to get a doctors' appointment, most of training and diabetes education is offered through telemedicine. We Indian doctors are overstressed and overworked to explain the insulin training and SMBG with glucometer with more frequent interactions with patients and their relatives.

666 / #EV0440

ATTENTION TO IONIC ALTERATIONS

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Case Description: A 47-year-old man with a history of residual schizophrenia, COPD GOLD II and smoker, attended the emergency room due to asthenia, generalized weakness, weight loss of 5 kg in two months, and lower limb swelling. Physical examination revealed hypertension (183/90 mmHg), skin-mucosa hyperpigmentation and lower limbs with edema. First complementary tests showed hyperglycemia (278 mg/dl), hypernatremia (147 mEq/L), severe hypokalemia (1.9 mEq/L), metabolic alkalosis (pH 7.51, HCO3 38.6 mEq/L) and significant elevation of LDH (1093 IU/l). The electrocardiogram showed flattening of T waves with the appearance of prominent U waves and the chest radiograph did not show masses.

Clinical Hypothesis: The main differential diagnosis, given the constitutional symptoms and the ionic and acid-base alterations, was made between an ectopic ACTH secretion or an adrenal neoplasm. Admission was decided and the study was completed.

Diagnostic Pathways: Hormonal tests showed elevation of ACTH (2475 pg/ml), serum cortisol (60 mcg/dl) and 24-hour urinary free cortisol (1192 ug/24 h) with suppression of aldosterone (69 pg/

 DOI: 10.12890/2022_V9Sup1

ml) and renin (0.7 ng/ml). Also elevation of chromogranin A (614 ng/ml) and neuronal specific enolase (124 ng/ml). Computed tomography revealed a left hilar mass of 60x58x65 mm with metastatic involvement at pleural level, mediastinal, hepatic and left adrenal. Bronchoscopy with adenopathy aspiration was performed, which was compatible with small cell lung carcinoma.
Discussion and Learning Points: The association of metabolic alkalosis, severe refractory hypokalemia and hypertension should lead us to suspect a possible ectopic Cushing syndrome.

1486 / #EV0441

EFFECTIVENESS AND SAFETY OF THE THERAPY WITH SEMAGLUTIDE IN REAL LIFE IN OVER 70 YEARS

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Background and Aims: Objective: to analyze the effectiveness of weekly sc semaglutide (WS) in patients with type 2 diabetes mellitus (T2DM) over 70 years of age and its safety through adverse effects and dropouts after 12 months of real-life follow-up.
Methods: Retrospective observational study. Inclusion criteria: patients ≥70 years with T2DM, eGFR ≥15 ml/min/1.73 m^2 treated with WS. Main outcome variable: change in HbA1c (%) and weight ≥ 5% (kg). Secondary outcome variables: change in BP, baseline blood glucose, LDL-C, albuminuria, hypoglycemia, adverse events. Statistics: descriptive analysis, Student's t, McNemar.
Results: 60 patients, 63.3% women, age 76.4 years, mean time of evolution of T2DM 15.4 years. 58% had macroangiopathy and 71.7% microangiopathy. Initial data: Weight 95.65±14.82 kg, BMI 36.47±6 kg m^2; HbA1c 7.49±1.5%, eGFR <60 ml/min/1.73m^2 71.4% and 49% MAO> 30 mg/g. In their background therapy, 60% previously used another GLP1aR and 78% insulin. WS was suspended in 4 patients due to digestive intolerance. 11.7% of the patients treated with insulin had mild hypoglycemia. After 12 months the HbA1c decreased - 0.61±0.86% (p <0.0001), in 63.3% decreased >0.5%. Weight decreased -7.94±5.29 kg (p <0.0001), reaching a weight change ≥5% 72.9%.
Conclusions: In real clinical practice in patients with T2DM older than 70 years, one-year therapy with WS leads to an improvement in metabolic control and weight and is safe both in patients naïve to GLP1aR (greater benefit), and in those who they change from another GLP1aR.

1701 / #EV0442

PERIODIC PARALYSIS. A RARE ONSET OF GRAVES' DISEASE.

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Case Description: A 20-year-old male from Ecuador without significant past medical history presented to the emergency department with lower limb weakness which started 3 hours before. He reported similar episodes during the prior 2 months, predominantly during nighttime and with spontaneous resolution. Physical examination showed tachycardia, upper limb tremor and severe lower limb paralysis. Blood tests showed 2 mmol/L hypokalemia and 1.53 mg/dL hypomagnesemia. Electrolyte replacement was started, with rapid correction and complete resolution of the symptoms. He was admitted to the ward for further evaluation.
Clinical Hypothesis: Periodic paralysis (PP) with hypokalemia and hypomagnesemia can be explained by few clinical entities, mainly thyrotoxicosis and muscle hereditary channelopathies (but the patient had no family history). Other entities such as myelopathy, myasthenic crisis, Guillain-Barré syndrome, tick paralysis, and botulism should also be ruled out. Most of these could reasonably be ruled out by anamnesis and physical examination.
Diagnostic Pathways: Blood extended analysis showed TSH <0.004 uUI/mL, T4 1.81 ng/dL and high levels of Thyroid-Stimulating Immunoglobulin (TSI) 4.05U/L. Brain and spinal MRI ruled out other pathological entities. The patient was diagnosed with thyrotoxic periodic paralysis (TPP) due to Graves' disease. Treatment with carbimazole and propranolol was started, improving heart rate and limb tremor. Magnesium and potassium supplements could be stopped. The patient had no further episodes of paralysis and could be safely discharged.
Discussion and Learning Points: TPP is a rare and potentially severe manifestation of Graves' disease. The finding of hypokalemia ± hypomagnesemia and PP alerts the clinician to the possibility of thyrotoxicosis, which must be evaluated, particularly in the absence of a family history of PP.

842 / #EV0443

A DIFFERENT ETIOLOGY OF FACIAL PALSY - ABOUT A CLINICAL CASE

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Case Description: A 54-year-old female with no appreciable pathological personal history; no usual medication;autonomous in daily life activities.Presented with deviation of the labial

 DOI: 10.12890/2022_V9Sup1

commissure to the right associated with difficulty in closing the left eye and dysarthria.Summary neurological exam compatible with peripheral facial paralysis. She is admitted to the internal medicine service.
Clinical Hypothesis: During hospital stay analytically evidence of severe hypothyroidism: TSH 97.22 uUI/ml and free T4 <0.42 ng/dL (antithyroid antibodies: anti-microsomes 2201.00 IU/ml; anti-thyroglobulin>20,000.00 IU/ml).
Diagnostic Pathways: Thyroid ultrasound shows aspects suggestive of thyroiditis.The patient started therapy with levothyroxine 50 mcg, with progressive increases and at the time of discharge,was under therapy with levothyroxine 100 mcg. She started physiotherapy to improve functionality. Serologic studies were negative as well as other common causes of peripheral neuropathy. At the follow-up visit, analytically presented TSH 4.10 uUI/ml, free T4 1.13 ng/dL, with symptomatic improvement.
Discussion and Learning Points: Thyroid hormones play an important role in tissue development and metabolism,including in neuromuscular system and brain functions. As a result, hypothyroidism may cause various neurological manifestations but dysfunction of cranial nerves is uncommon. The mechanisms by which this happens are not fully understood, but metabolic dysfunction appears to cause disruption in the myeloid sheath. In some patients with clinical hypothyroidism,peripheral nerves dysfunction may be the main manifestation and can cause significant disability. Peripheral neuropathy may be caused by severe,long-term,untreated hypothyroidism. Symptoms usually correlate better with the duration of the dysfunction rather than with its severity and most of them are partially or fully responsive to thyroid replacement.However, in some cases, residual symptoms and signs may be present after 1 year of therapy.

2729 / #EV0444

STROKE AND ACUTE KIDNEY INJURY: A CASE OF ANCA-MPO VASCULITIS

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Case Description: A previously healthy 70-year-old man was hospitalized for ischemic small vessel stroke and acute kidney injury. During hospitalization with complaints of general tiredness, anorexia and low-grade fever. At admission, creatinine was 1.79 mg/dL, and despite maintaining adequate urinary output, renal function gradually worsened to a creatinine level of 7.12 mg/dL, with urea 126 mg/dL, over the next ten days.
From the study carried out, the urinary sediment with a marked increase in erythrocytes and leukocytes stands out; negative urine cultures and renal ultrasound: kidneys with normal morpho-dimensional appearance, without evident signs of lithiasis or ectasia of the excretory system. Small cortical cyst on the right.
Analytically, he presented ANCA-MPO with a high titer: 307.9 AU/mL, and the diagnosis of microscopic polyangiitis was made.
Later, he was transferred to Nephrology, where he performed a renal biopsy: "Growth GN, cellular crescents, 30% fibrosis". He was treated with methylprednisolone (500 mg for 3 days) and cyclophosphamide (500 mg for 2 days) with clinical improvement. At discharge, creatinine was 2.9 mg/dL.
Clinical Hypothesis: Microscopic polyangiitis is a vasculitis that affects small vessels. The most frequently affected organs are the lung and kidney, however others may be multiorgan involvement.
Diagnostic Pathways: Patient with stroke and kidney failure as a result of ANCA-MPO vasculitis.
Discussion and Learning Points: This case aims to demonstrate a rare presentation of an uncommon disease: stroke as a hematological complication of an ANCA vasculitis, which also had significant renal involvement.

1146 / #EV0445

WEDGE-SHAPED DEHYDRATION AS SCREENING DIAGNOSIS OF TYPE 2 DIABETES MELLITUS

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Background and Aims: The structural and spatial organization of all biological fluids has been changed in case of metabolic disorders. The purpose was to evaluate the possibility of using the method of wedge-shaped dehydration (crystallography) for screening diagnosis of type 2 diabetes mellitus (T2DM).
Methods: 63 samples of urine and oral fluid were obtained from 21 patients with a verified diagnosis of T2DM. The control group was presented by 30 biological samples obtained from people who had a healthy lifestyle. All samples were subjected to morphological examination by wedge-shaped dehydration followed by morphometry of facies.
Results: The biological fluids of practically healthy people and those with T2DM had significant differences, consisting in a decrease in the protein-crystal coefficient. In patients with T2DM, this indicator was 9.92 times lower than in practically healthy people (p=0.034). A pronounced decrease in the coefficient occurred due to reducing the width of the central facies zone and the degree of crystal branching. When studying the facies of urine, the protein-crystal coefficient in the group of practically healthy

 DOI: 10.12890/2022_V9Sup1

people was 104.10±21.31, and in patients with diabetes mellitus it was 4.06 times lower and equal to 25.64±5.11 (p=0.023).
Conclusions: 1. Pronounced structural and spatial rearrangement of facies was observed in patients with T2DM.
2. A change in the ratio of the central and peripheral zones, the appearance of pathological crystals, a decrease in the degree of branching, and a loss of tree structure were found.
3. A decrease in the protein - crystalline coefficient was revealed in all samples of patients with T2DM.

2067 / #EV0446

WERNICKE ENCEPHALOPATHY

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Case Description: We are dealing with a clinical case of a 66-year-old male patient, who came to the emergency department for instability and diplopia. His personal history included: grade II obesity, chronic alcohol intake (150 g or 15 IU of alcohol/day) and a poor nutrition. Also, he was being treated with enalapril, rosuvastatin and sertraline. The neurological examination showed us a limitation of abduction of both eyes, an horizontal-rotatory nystagmus, dysmetria, dysdiadochokinesia more evident in the left side, and dysarthria.
Clinical Hypothesis: We have as a differential diagnosis of this clinical (ataxia, oculomotor dysfunction and dysarthria): an adverse drug reaction, electrolyte disturbance, CNS malignancies, hemorrhagic or ischemic stroke, or Wernicke encephalopathy.
Diagnostic Pathways: At first term, the medication he was taking was ruled out that could be related. Also, electrolyte levels were normal. Subsequently a cranial CT and a cranial MRI were performed without evidence of any pathology. Given the normality of these tests, we decided to start empirical treatment with intravenous thiamine 500 mg/8h for two days and then, 250 mg/24h of intramuscular thiamine for 5 days. Finally, after one week of treatment the patient showed a good evolution.
Discussion and Learning Points: Wernicke encephalopathy classically occurs in heavy drinkers and underweight malnourished patients. Despite this, it has been documented on several occasions in obese chronic beer drinkers with severe malnutrition, due to an empty calorie diet. With this case we want to highlight that it is not mandatory that every malnourished person has a low weight, but it is possibile for them to have a high grade of obesity.

1364 / #EV0447

DEATHS CAUSED BY DIABETES IN PORTUGAL

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Background and Aims: Diabetes remains one of the main challenges of current healthcare, with Portugal having one of the highest prevalences in developed countries. Our main goal was to characterize demographic and epidemiological profile of deaths by diabetes in Portugal.
Methods: A 8-year retrospective review (2012-2019) of data from INE® (Statistics Portugal) was performed, related to deaths by diabetes in our population.
Results: We registered an annual mean of 4344.4±279.9 deaths attributed to diabetes, with consistent decreasing percentage over the years, the lowest being 11.1% of total deaths in 2019. Women were consistently the most affected, representing 58,4% in 2017 and 5.2% of total deaths in women by all causes in 2012. Geographical distribution of deaths was asymmetrical, as the North was the only region where it showed a decrease of deaths until 2016, contributing with a ¼ of cases, and by 2019 had increased its numbers, representing 1/3 of the cases. Change in death patterns was found in the age subgroup of 75 to 79 years old, with a decrease in relative percentage of deaths annually - 19,2% in 2012 to 13.4% in 2019. However in people over 85 years old the opposite was verified - 34.6% in 2012 to 43.1% in 2019.
Conclusions: Change in death patterns related to geographical distribution and age group was found questionably due to modification in health patterns and comorbidities. Urgent reflection of this data is required in order to provide awareness for small lifestyle changes that can have an effective impact in incidence and prognostic factors related to diabetes.

745 / #EV0448

ACUTE KIDNEY INJURY REQUIRING DIALYSIS IN MCARDLE DISEASE: A RARELY SEEN PRESENTATION

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Case Description: 21-year-old female, with known McArdle disease diagnosed at age 6. History of frequent episodes of myalgia and rhabdomyolysis, sometimes requiring intravenous fluids but with normal renal function. Recent initiation of antidepressant (agomelatine). Emergency department after episodes of lipothymia, falls and dark urine.
Clinical Hypothesis: Rhabdomyolysis.
Diagnostic Pathways: Laboratory: plasmatic creatinine 1.76mg/dL, CK>40000 U/L, myoglobin >4144 ng/mL and LDH 5343 U/L, urinalysis presented hemoglobinuria. Renal ultrasound

 DOI: 10.12890/2022_V9Sup1

was normal. Intensive intravenous fluids were given, however she evolved with anuria and metabolic acidosis. Aggressive diuretic stimulation was initiated but she remained anuric and creatinine levels rose to 5.71mg/dL in 48h. At this point CK 93692 UI/L, myoglobin >4144 ng/mL and LDH 2163 UI/L. She was hypervolemic and hemodialysis (HD) was initiated. Autoimmunity was negative. She remained anuric for 5 days, recovering diuresis on day 6, with increasing urine output. HD was suspended after 5 sessions. Creatinine continued to rise (up to 8.93mg/dL) in the following 2 days, but with increasing urine output. She then presented sustained decrease in creatinine, CK and myoglobin, being discharged 2 weeks later. At discharge creatinine 2.78 mg/dL, CK 470 U/L, myoglobin 73 ng/mL. Two weeks after discharge she remained asymptomatic and creatinine was 0.9 mg/dL.

Discussion and Learning Points: McArdle disease is a rare genetic disorder that courses with impaired muscle glycogenolysis, basal elevation of CK and increased susceptibility to rhabdomyolysis. Acute kidney injury (AKI) requiring HD is a rare presentation of an already rare disease. This case shows the reversible and benign nature of AKI in McArdle disease. Trauma seems to have been the main trigger, however agomelatine may have also played a role.

2688 / #EV0449

DIPLOPIA AND VERTIGO - A DIFFERENTIAL DIAGNOSIS BETWEEN CENTRAL AND PERIPHERAL PATHOLOGY

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Case Description: A 74-year-old woman was brought to the ER with diplopia, vertigo and disequilibrium, falling frequently. She had a poorly controlled type 2 diabetes mellitus (HbA1c 9%) - treated with human insulin, metformin and vildagliptin - and was associated with end organ damage: retinopathy, nephropathy, cerebrovascular disease and peripheral arterial disease. The patient demonstrated a tendency to fall backwards on the Romberg test and a recent onset of limited abduction of the right eye, consistent with abducens nerve palsy. There were no acute ischemic, hemorrhagic or traumatic findings in angio-CT scan performed in the ER.

Clinical Hypothesis: Given the case, the most likely diagnostic hypotheses were an acute cerebral event on the posterior circulation, vestibular involvement or a mononeuropathy.

Diagnostic Pathways: Suspecting a stroke in the posterior circulation, the patient was admitted for further evaluation: vascular lesions of the anterior, medial and posterior cerebral circulations were excluded after head angio-CT and MRI scans. The patient was evaluated by an ENT specialist due to suspicion of vestibular involvement, which was also excluded. After multidisciplinary discussion, the most likely diagnosis was considered to be a peripheral neuropathy due to uncontrolled diabetes mellitus. She was discharged with optimisation of medical therapy, adjusting the hypoglycemic treatment and the management of cardiovascular risk factors.

Discussion and Learning Points: Abducens nerve palsy is a mononeuropathy, which is an uncommon neuropathic complication of type II diabetes mellitus. Glycemic control improvement lowers the risk of microvascular complications in type 2 diabetic patients (primarily retinopathy and nephropathy), but the damage is often irreversible in cranial nerve palsies.

2445 / #EV0450

NEW DIAGNOSIS OF GRAVES' DISEASE DURING SARS-COV-2 INFECTION. A FURTHER TRIGGER OF HYPERTHYROIDISM?

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Case Description: We report a case of a 47-year-old woman admitted to our Unit due to fever, tachycardia and worsening dyspnea. Nasopharyngeal swab test resulted positive for SARS-CoV-2 (PCR). Past medical history included euthyroid nodular thyroid disease, hypertension and obesity.

Clinical Hypothesis: Graves'disease triggered by SARS-CoV2 infection.

Diagnostic Pathways: She reported palpitations, insomnia and weight loss in the past days. Laboratory tests revealed hyperthyroidism with positive thyroid antibodies with TSH <0.05 mU/l, FT4 32 ng/l and FT3 5.9 ng/l (normal value 8-17 and 2-4, respectively), and elevated AbTPO 137 KU/l (<34) and AbTSH-r 2.4 U/l (<2).Blood sample test for D-dimer resulted increased (1272 ug/l, normal value <500), and bilateral subsegmental embolism was found on CTAngiography. Thyroid ultrasound showed an enlarged gland with heterogeneous echotexture and hyperechoic nodules; an hypervascular pattern with elevated peak systolic velocity in inferior thyroid artery (50-69 cm/s) was found at colorDoppler. A diagnosis of Graves disease was established and treatment with thiamazole was started, achieving normal heart rate control and recovery of symptoms.

Discussion and Learning Points: Graves' disease is an autoimmune disorder which represents the most common cause of hyperthyroidism. It is often triggered by an acute event, such as infections. SARS-CoV-2 binds to angiotensin-converting enzyme 2 (ACE2), expressed mostly in the lungs but also in several endocrine organs like thyroid. In the absence of a clear trigger for our patient's thyroid storm, we suggest SARS-CoV-2 infection, in addition to CT iodinate contrast medium, might precipitate or worsen a latent Graves' disease.

 DOI: 10.12890/2022_V9Sup1

1682 / #EV0451

WHEN THE TREATMENT BECOMES THE DISEASE

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Case Description: A 67-year-old female with type 2 diabetes mellitus and arterial hypertension had been seen in the emergency room (ER) 2 months earlier diagnosed with acute optic neuritis due to giant cell arteritis. She was medicated with methylprednisolone bolus 3 days and started on prednisolone 60 mg/day, with a short-term outpatient appointment arranged for follow-up and corticosteroid tapering. The patient missed her scheduled appointment and 2 months later presented to the ER with increase in body weight, proximal limb muscular weakness and consequent total dependence on activities of daily living; scattered ecchymosis and sustained hyperglycaemia. Chest radiograph showed a hypotransparency in the left upper lobe and CT scan evidenced a spiculated nodule with a small central cavitation.

Clinical Hypothesis: High dose corticosteroid adverse effects.

Diagnostic Pathways: *Aspergillus* DNA detection by PCR was positive in bronchoalveolar lavage. Transthoracic biopsy evidenced an almost totally necrotic lung parenchyma. Electromyography was compatible with corticosteroid-induced myopathy.

Discussion and Learning Points: Prolonged treatment with high dose corticosteroid is associated with several side effects. There is no unanimity on the best regimen to discontinue long-term treatment but agree that reduced should be planned and gradual. We present the case of a patient on high systemic corticosteroid use for an extended period of time with development of several side effects, including serious side effects - invasive pulmonary aspergilloma. This case-report serves to remember the complications associated with systemic corticosteroid use, as well as the importance to draw up "*ab initio*" the tapering scheme and promote a patient-provider dialogue to guarantee a patient's good understanding and adherence to treatment.

2664 / #EV0452

ASYMPTOMATIC PAGET'S DISEASE OF BONE

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Case Description: An 88-year-old man, asymptomatic in terms of osteoarticular complaints, with a finding on abdominopelvic CT (December 2019) suggestive of Paget's disease of the bone. "Accentuated thickening of the cortical bone of the left iliac and also of the left wing of the sacrum, with gross bone trabeculation". Analytically, maximum alkaline phosphatase 480 U/L (LSN 120U/L), calcium and phosphorus values always within normal limits.

Clinical Hypothesis: Paget's disease of bone is a (multi)focal disorder of bone remodeling that progresses gradually and leads to changes in the shape and size of affected bones and skeletal, joint and vascular complications. In some regions it is the second most common bone disease after osteoporosis, although in recent years the prevalence and severity are decreasing.

Diagnostic Pathways: From the remaining investigation carried out, skeletal teleradiography revealing "cortical thickening, bone expansion and diffuse increase in the density of the iliac bone and, to a lesser extent, of the left half of the left sacrum". Bone scintigraphy with "diffuse radiopharmaceutical hyperuptake in the projection of the left iliac bone extending to the left wing of the sacrum, as well as in the proximal third of the left femur" compatible with Paget's bone disease.

Discussion and Learning Points: The diagnosis of Paget's disease of bone is made with suggestive clinical signs and laboratory findings compatible with a high bone turnover rate, confirmed by the imaging study that gives the definitive diagnosis and assess the extent, distribution and activity of the disease, essential to determine a therapeutic approach.

1286 / #EV0453

A PRACTICE TO REVIEW

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Background and Aims: Diabetes mellitus (DM) has a high prevalence worlwide. Hyperglycemic and hypoglycemic events in hospitalized patients are associated with worse outcomes (higher mortality). Often, the metabolic control of these patients depends on the use of insulin regimens. This aims to verify the relationship between the sliding scale scheme and hypoglycemic events.

Methods: Retrospective analysis of patients diagnosed with type 2 DM, present in the internal medicina wards, on the first day of each month, between January and May of 2021.The statistical study was done using SPSS.

Results: A total of 172 patients were selected, median age 78 years, 42.4% (n=73) male, 57.6% (n=99) female. The most widely practiced therapeutic scheme was the sliding scale (45.3%, n=78), followed by basal insulin with the sliding scale (37.2%, n=64). 15.1% of patients (n=26) had hypoglycaemia. 10.5% of patients (n=18) died during hospital stay. A statistically significant association was found between sliding scale therapy and the occurrence of hypoglycemic events (p-value=0.000). On the contrary, no statistically significant association was found between hypoglycemic events and infectious complications (p-value=0.274), mortality (p-value=0.738) or need for readmission

 DOI: 10.12890/2022_V9Sup1

after one month (p value=1.00) or three (p-value=0.531).
Conclusions: According to ADA 2021 guidelines, the sliding scale scheme is not recommended in patients hospitalized with type 2 DM. This analysis shows a frequent use of inappropriate insulin regimens during hospitalization, with a greater potential for hypoglycemia with sliding scale scheme. Factors such as diet, diagnosis or the patient's symptoms can influence the occurrence of these events. More data are necessary to assess this relationship.

2680 / #EV0454

SYMPTOMATIC HYPOCALCEMIA AND ACUTE KIDNEY INJURY AFTER A SINGLE DOSE OF ZOLENDRONIC ACID

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Case Description: An 81-year-old man with a personal history of rheumatoid arthritis, medicated with methotrexate (12 mg/week) and corticotherapy (10 mg id) came to the ER due to asthenia and anorexia with 2 weeks of evolution. Associated with diarrheal stools (>6/day) for 3 days and vomiting. A highlight of the investigation carried out, acute kidney injury, interpreted in the context of hypovolemia by the described clinical scenario. He also had hypomagnesaemia (0.57 mmol/L), hypophosphatemia (1.8 mg/dL), hypokalemia (3.9 mEq/L) and hypocalcemia (ionized calcium 0.7 mmol/L) with high PTH (673.4 pg/mL) and vitamin D slightly below normal. recommended value (26 ng/mL).
Positive evolution during hospitalization but slow improvement of renal function, under initial fluid therapy strategy, in addition to difficult-to-resolve hypocalcemia, which recurred when attempts were made to transition from intravenous to oral supplementation and symptomatic (left upper limb paresthesias).
Clinical Hypothesis: When reviewing possible etiologies for supplementation-refractory hypocalcemia and slow recovery of renal function, we discovered a single dose of zolendronic acid (iv) 3 weeks before this condition for the treatment of long-term corticosteroid-induced osteoporosis.
Diagnostic Pathways: Zolendronic acid is a potent bisphosphonate that inhibits bone resorption. Although the mechanisms of renal injury induced by bisphosphonates are multifactorial, acute tubular necrosis (ATN) is one of the mechanisms associated with zolendronic acid, with some cases already described in the literature.
Discussion and Learning Points: Due to the chronological relationship of events we assumed a multifactorial prerenal acute kidney injury with evolution to ATN, in a patient with multiples nephrotoxic drugs in his usual medication, recent intake of NSAIDs along with an important contribution from intravenous bisphosphonate intake.

1591 / #EV0455

GLUCOSE-6-PHOSPHATE DEHYDROGENASE (G6PD) DEFICIENCY AND THE CONSUMPTION OF BROAD BEANS - FAVISM

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Case Description: 39-year-old male,melanodermic,with no known pathologies,no alcoholic/toxiphilic habits and no usual medication. He was referred to the ER due to fatigue,choluria, icteric sclerotics and an episode of lipothymia with loss of awareness after loss of awareness after ingestion of broad beans. Previous history of sporadical consumption of broad beans. He was hemodynamically stable,without hepatosplenomegaly or other alterations.
Clinical Hypothesis: G6PD deficiency is an X-linked enzyme defect that is quite common in black people,which can result in hemolysis following ingestion of certain drugs or foods.Diagnosis is based on G6PD ranges and treatment from support to blood transfusion.
Diagnostic Pathways: Analytically, he was anemic (Hg 9.5g/dL, VGM 102.8 fL, HGM 33.3 pg) and liver function altered liver function with elevation of the following parameters:AST, total bilirubin, CK and LDH.Urine II with presence of urobilinogen and hemoglobin.Abdominal ultrasound and remaining tests (ECG, chest X-ray) without changes. He was hospitalized for study of hemolytic anemia. He remained stable under serum therapy, with reversal of the and normalization of hemolysis parameters. Complementary analytical evaluation with increased reticulocytes and sedimentation rate,decreased haptoglobin, normal folic acid and vitamin B12, iron kinetics only with elevated ferritin,protein electrophoresis without monoclonal peaks and irrelevant viral serologies. Negative direct Coombs.Peripheral blood morphology with polychromatophilia and erythrocytes with basophilic punctuation. G6PD decreased.
Discussion and Learning Points: G6PD deficiency is the most common inherited disorder of red cell metabolism and can cause hemolysis in the presence of triggers due to oxidative stress.The severity of the condition depends on the levels of the deficiency, although most patients are asymptomatic throughout their lifetime.He was discharged with indication to avoid ingestion of broad beans and peas.

 DOI: 10.12890/2022_V9Sup1

1178 / #EV0456

HYPOMAGNESEMIA IN HEAVY DRINKERS. MULTICENTRE STUDY OF PATIENTS WITH ALCOHOL USE DISORDER

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Background and Aims: Magnesium is an essential cofactor for many cellular functions. Hypomagnesemia is related to the development of oxidative stress and has been linked to cardiovascular disease (CVD). Hypomagnesemia has been poorly studied in contemporary heavy drinkers. We hypothesize that excessive alcohol consumption favors pro-inflammatory alterations. We aimed to assess clinical associations of hypomagnesemia in alcohol use disorder (AUD) individuals.

Methods: Multicenter, cross-sectional study of patients seeking first treatment for AUD between 2013-2020. Recruiting centers are six Spanish university hospitals. Socio-demographic variables, alcohol use characteristics, anthropometric data, biological parameters including renal function and liver fibrosis (FIB-4) were ascertained at admission. Serum hypomagnesemia was established <1.7 mg/dL. Logistic regression models were used to analyze associations of hypomagnesemia.

Results: A total of 753 AUD patients were eligible, 80% men, 48 years-old [interquartile range (IQR), 41–56 years-old] and alcohol consumption 184g/day [IQR, 100–240 g/day]. At baseline, 19.1% had advanced liver fibrosis (FIB-4 >3.25) and 16.5% impaired kidney function (eGFR<90 mL/min). Prevalence of hypomagnesemia was 11.2%. The regression analysis excluding patients with hypoalbuminemia (n=18) showed that older age, longer duration of AUD, elevated ESR, hyperglycemia, hypokalemia, elevated FIB4 values and eGFR <60 were associated with hypomagnesemia. In multivariate analysis FIB4≥ 3.25 (OR = 8.91, 95% CI: 3.32-23.9) and eGFR<60 mL/min (OR = 5.24, 95% CI: 1.04-26.2) were the only statistically significant factors associated with hypomagnesemia, with a strong correlation.

Conclusions: Hypomagnesemia in heavy drinkers seeking first treatment of AUD is strongly associated with liver damage and renal dysfunction, suggesting an increased risk of cardio-metabolic and hepatic complications in this population.

840 / #EV0457

NON-ALCOHOLIC FATTY HEPATIC DISEASE AND LIVER FIBROSIS; RELATIONSHIP WITH CARDIOVASCULAR RISK IN A POPULATION OF ZARAGOZA AND ITS DIAGNOSIS THROUGH INDIRECT INDICES

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Background and Aims: To assess whether there is statistical significance between clinical-analytical and morphological parameters in Steatosis Nonalcoholic liver disease and its relationship with cardiovascular risk. Analyze the correspondence of the percentage of patients with advanced liver fibrosis according to markers indirect and direct.

Methods: A descriptive-analytical observational study. The analysis comparative tries to look for a positive correlation between different anthropometric parameters and laboratory tests in those patients with NAFLD and its relationship with CVR factors. In addition, it is intended relate different indices or scales that indirectly measure steatosis and fibrosis in patients with more accurate tests that provide a more certain diagnosis.

Results: 119 patients were included, mean age 54.8 years, 61% women. The percentage of patients who presented a Elevated CVR measured by SCORE index was 25.2%. The indirect NAFLD index presented a high value negative predictive (93.3%) and a significant association with a p <0.05 for the high waist circumference variables (>102 men and >88 women). The FLI index used in the study has a sensitivity of 80%, and a correlation with the presence of fibrosis in Fibroscan of 0.451 (p<0.05) (indicating a medium-low correlation). Regarding Fibroscan, the variables high weight (p<0.05), high BMI (p=0.05), and alterations in transaminases (GOT (p<0.01) and GPT (p<0.01)), showed a significant association with the presence of fibrosis.

Conclusions: Patients with NAFLD are young patients with high CVR. The FLI index to predict steatosis is more sensitive and the NAFLD index for fibrosis is more specific when compared to liver elastography.

 DOI: 10.12890/2022_V9Sup1

2386 / #EV0458

EFFICACY OF DULAGLUTIDE TO IMPROVE VASCULAR HEALTH INDEXES IN SUBJECTS WITH TYPE 2 DIABETES: A RANDOMIZED TRIAL

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Background and Aims: Recent cardiovascular outcome trials have shown significant reductions of major cardiovascular events with GLP1 receptor agonists. Adjunctive surrogates for cardiovascular risk more recently are arterial stiffness and endothelial function indexes. No randomized trials have yet addressed the possible effects of antidiabetic interventional drugs on endothelial and arterial stiffness as surrogate markers of vascular damage. The aim was to evaluate some metabolic efficacy endpoints and surrogate vascular efficacy endpoints such as endothelial function and arterial stiffness indexes with once-weekly dulaglutide (1.5 mg) added to traditional antidiabetic treatment compared to traditional treatment alone.

Methods: Randomized trial to once-weekly dulaglutide (1.5 mg) added to traditional antidiabetic treatment compared to traditional treatment alone. Men and women with established or newly detected type 2 diabetes whose HbA1c was 9.5% or less on stable doses of up to two oral glucoselowering drugs were eligible. Arterial stiffness and endothelial function were evaluated at baseline and at a three and nine-month visit. At each visit were also evaluated glycemic and lipid variables.

Results:

At a 3-month follow up subjects treated with dulaglutide showed lower serum levels of FBG and HBa1c. At a 9-month follow up subjects treated with dulaglutide showed a significant lowering of DBP, BMI, mean total serum cholesterol, LDL, FPG and a lower percentage of HBa1C and PWV and higher mean RHI values.

Conclusions:

These findings are consistent with previous studies indicating the strict relationship between cardiovascular risk factors such as systolic blood pressure, total serum cholesterol and LDL levels and cardiovascular events and vascular health surrogate markers.

2502 / #EV0459

INVESTIGATING THE CAUSE OF SYMPTOMATIC HYPOGLYCEMIA

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Case Description: A 88-year-old woman with DM-II controlled with diet and primary hypothyroidism who presents to the Emergency after an episode of obnubilation, nausea, aphasia and loss of strength that resolves with the administration of glucose solution. On arrival, afebrile, hemodynamically stable, capillary blood glucose 88 mg/dL, unremarkable physical examination. Basic analysis of blood and urine, chest X-ray, ECG, cranial CT and transcranial and supra-aortic trunks doppler-ultrasound without alterations.

Clinical Hypothesis: She is admitted for a study of symptomatic hypoglycemia.

Diagnostic Pathways: During admission, she manifests a tendency to symptomatic hypoglycemia. Hb 15.1 g/dL, HbA1c 4.7%. Synacthen test that rules out adrenal insufficiency. Elevated insulin and C-peptide levels (25.0 mIU/L and 6.64 ng/mL, respectively), which is confirmed during the fasting test with an insulin/glycemia index of 0.33 and abnormally elevated insulin and C-peptide. Negative autoimmunity study, including anti-insulin antibodies. Chromogranin A 107 ng/mL. In the search of insulinoma, CT shows a 14-mm hypervascular nodule in the body of the pancreas. No evidence of uptake in Octreoscan. After laparoscopic corporocaudal pancreatectomy, insulinoma is histopathologically confirmed.

Discussion and Learning Points: A hypoglycemic disorder should be sought in patients who meet Whipple's triad (symptoms of neuroglycopenia, hypoglycemia, and reversal of symptoms after administration of glucose), such as our patient. The presence of proinsulin or C-peptide determines the existence of endogenous hyperinsulinism, whose differential diagnosis must be made with insulin secretagogue drugs, insulinoma, pancreatogenic hypoglycemia without insulinoma, gastric bypass or autoimmune cause. In our case, the results of Octreoscan did not exclude the diagnosis since a high percentage of insulinomas do not express somatostatin receptors.

 DOI: 10.12890/2022_V9Sup1

2504 / #EV0460

ACTH-DEPENDENT CUSHING'S SYNDROME WITH ECTOPIC PRODUCTION

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Case Description: A 75-year-old man with a history of hypertension, 6 month-evolution edemas in the lower limbs with data of miocardiopathy, vitamin D deficiency with recent humerus fracture and benign prostatic hyperplasia with vaporization a few days before. He presents to the Emergency due to symptoms of orchitis after urological manipulation and worsening of edemas. He is admitted for antibiotic treatment and suspected decompensated heart failure. During his admission he presents persistent edema, HTA, hyperglycemia, and hypokalemic metabolic alkalosis despite treatment (pH 7.61, bicarbonate 47 mmol/L, potassium 1.9 mmol/L and sodium 147 mmol/L) with elevated urine potassium (28.2 mmol/L).

Clinical Hypothesis: Hyperaldosteronism versus hypercortisolism is suspected.

Diagnostic Pathways: We obtain normal levels of aldosterone and renin, but elevated cortisol (32.4 µg/L) and ACTH (123.9 ng/L) that confirms the presence of hypercortisolism. Exogenous glucocorticoids and physiologic hipercortisolism are excluded. Elevated urinary free cortisol (1395.7 µg/24h) and the absence of suppression after low and high-dose dexamethasone tests (cortisol 43.3 and 26.9 µg/dL, respectively) are obtained, which establishes the diagnosis of ACTH-dependent Cushing's syndrome with ectopic production. CT shows an 18x16 mm nodule in the upper lobe of the left lung with pathological expression of somatostatin receptors by OctreoScan. Medical treatment is started until lobectomy is performed, demonstrating pulmonary carcinoid tumor histopathologically.

Discussion and Learning Points: This is a case of ectopic ACTH secretion Cushing's syndrome that debuted with hypokalemic metabolic alkalosis and myocardial involvement associating comorbidities such us osteoporosis and predisposition to infections. Hypercortisolism implies high morbimortality, then it is important to consider the diagnosis to establish early treatment.

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CUSHING SYNDROME BEHIND HYPOKALEMIA AND SEVERE INFECTION – A CASE REPORT

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Case Description: We present a woman with several cardiovascular risk factors hospital admitted due to severe bacterial infection: muscle abscesses with possible origin in intramuscular analgesia evolving to osteomyelitis. Broad spectrum antibiotics were started (vancomycin and piperacillin-tazobactam) and one of the abscesses was drained. The patient concurrently had refractory hypokalemia, hypernatremia and metabolic alkalosis with no evident cause.

Clinical Hypothesis: Refractory hypokalemia, hypernatremia and metabolic alkalosis on a patient with severe infection made us look for the possibility of a Cushing Syndrome (CS), especially considering the clustering of comorbidities, signs and symptoms - diabetes, hypertension and central obesity, but also easy bruising.

Diagnostic Pathways: Overnight 1 mg dexamethasone suppression test was positive - cortisol 35.7 µg/dL; the midnight serum cortisol was also elevated – 44.8 µg/dL as well as two 24-hours urinary free cortisol measurement – 609.1 ug/day and 1636.6 µg/day (reference range: 36-137 ug/day). Adrenocorticotropic hormone (ACTH) was 61.0 ng/L. The pituitary MRI showed a microadenoma. Percutaneous drainage and five weeks of agent-directed antibiotic therapy were insufficient and surgical treatment was necessary. Medical treatment of the hypercortisolism was intended, however the patient died from a post-operatory infectious complication.

Discussion and Learning Points: Hypercortisolism-associated immunosuppression renders patients prone to severe infectious conditions. Infectious complications are an important cause of death in CS. Early diagnosis and treatment of CS is the key to prevent its dismal complications. Our case, despite alerting for a possible presentation of CS – hypokalemia, hypernatremia, and metabolic alkalosis - highlights the association of a delayed diagnosis with unfavorable outcomes.

DOI: 10.12890/2022_V9Sup1

2296 / #EV0462

TYPICAL PRESENTATION OF AN UNCOMMON CASE

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Case Description: A 73-year-old woman with no hypertension known, goes to the emergency room for headache and blood pressure of 197/85. Spiked T waves in electrocardiogram are observed as well as a raised curve of troponins.
Clinical Hypothesis: We are facing a case of hypertension emergency which compels us to look for causes of secondary hypertension. Due to the development, the first hypothesis is a hormonal discharge.
Diagnostic Pathways: Diseases we should look for are kidney illness, renovascular hypertension, primary hyperaldosteronism, Cushing syndrome, hyper and hypothyroidism, hyperpatathyroidism and pheochromocytoma, so blood test includes thyroid hormones, cortisol, ACTH, PTH, calcium and aldosterone is needed; also, a 24 hours urine test for catecholamines excretion and a renal ultrasound.
Discussion and Learning Points: In our patient, blood tests already mentioned are completely normal except for an elevated amount of epinephrine, norepinephrine and metanephrine excretion in urine. On the other hand, the ultrasound shows an adrenal mass of 40x23 mm without any other abnormality confirmed by MRI. With all the results we can conclude that our patient has an adrenal pheochromocytoma. We start treatment with doxazosine while surgery specialists schedule removal.
Pheochromocytoma is a rare catecholamine secreting tumour. The classical triad is episodic headache, sweating, and tachycardia but paroxysmal hypertension is the most common sign. It is usually located in the adrenal gland and rarely causes metastatic disease. Diagnosis is given by the catecholamine urinary secretion and radiological finds, sometimes supported by nuclear medicine techniques. Alpha adrenergic blockade adding beta adrenergic blockade as well as surgical removal of the tumour are the treatments.

585 / #EV0463

EXTREMELY HYPERCALCAEMIA DUE TO PARATHYROID CRISIS

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Case Description: Extreme hypercalcaemia in acute primary hyperparathyroidism (APH) is a rare but life-threatening emergency.
Clinical Hypothesis: A 67-year-old woman was admitted for weakness, altered and refusal to eat and drink for three days. Her medical history was unremarkable and she was not treated with any medications. On admission, she was unconscious with Glasgow Coma Scale (GCS) of 8–9. Blood pressure was 115/70 mmHg, heart rate 122 bits/min, respiratory rate 26/min. Muscle flaccidity was observed.
Diagnostic Pathways: Laboratory findings on admission were: urea 158 mg/dL, creatinine 3.7 mg/dL calcium 24.3 mg/dL, phosphate 2.9 mg/dL, alkaline phosphatase 198 U/L, albumin 4.1 g/L, globulin 3.7 g/L. ECG recording demonstrated shortening of QT (120 ms) with RBBB pattern. Intensive therapy was provided including fluid resuscitation with Normal Saline 300 mL/hour, subcutaneous calcitonin 30 units twice per day, intravenous bisphosphonate 60 mg, intravenous dexamethasone 40 mg and loop diuretic to enhance renal excretion of calcium. Calcium in 24 hours urine collection was 1216 mg/24 hours. Tumor markers CEA and CA 19–9 were normal. Pulmonary, abdominal and tracheal computed tomography was normal. Bone marrow biopsy was normal. iPTH was 1973 pg/ml. 24 hours after admission, the patient had good urine output and conscious level was better, so urgent haemodialysis was not provided. Laboratory parameters improved at 5th day. Parathyroid scintigraphy was performed, demonstrating a huge parathyroid gland. Surgery including right lower parathyroidectomy was performed.
Discussion and Learning Points: APH with hypercalcemic crisis is a rare but life-threatening emergency and must be include in differential diagnosis of hypercalcaemia. Recognition of hypercalcaemia and urgent treatment can be lifesaving.

 DOI: 10.12890/2022_V9Sup1

2298 / #EV0464

COMMON SYMPTOM OF AN UNDERDIAGNOSED DISEASE

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Case Description: 35-years-old female attending to internal medicine consult for a 3-years of acute abdominal pain crisis, constipation alternating diarrhoea and paraesthesia in hands. Blood tests with celiac antibodies, lactose and fructose intolerance tests were performed without abnormal results.

Clinical Hypothesis: We face chronic abdominal pain that is presented as an acute crisis, so we need to search for tumour, inflammatory bowel disease, peptic ulcer, or gynaecological illness. If none are diagnosed, we should look for more uncommon diseases such as parasitosis, porphyria, neuropathic pain, irritable bowel syndrome. Due to the painful crisis and the association with peripheral nerves affectation the first diagnostic option is acute intermittent porphyria.

Diagnostic Pathways: We perform a complete blood analysis, abdominal scan, tool test, colonoscopy and gastroscopy without abnormal results. So finally, we perform a Hoesch test, resulting in a positive.

Discussion and Learning Points: With a positive Hoesch we can diagnose acute intermittent porphyria, so we ask for the genetic test. Patients did not meet the requirement for givosiran therapy. Acute intermittent porphyria is a disorder that causes visceral, peripheral, autonomic, and central nervous symptoms (neurovisceral symptoms) under exacerbating factors. Hoesch test gives the diagnosis and treatment is based on avoid trigger factors, intravenous hemin in acute pain crisis and givosiran if patients have more than 3 crises per year. We must not forget porphyria is underdiagnosed due to the lack of hoesch test available in health centres so many patients with chronic abdominal pain are never tested for it.

849 / #EV0465

HYPOPHISITIS SECONDARY TO IMMUNOTHERAPY: A NEW ENTITY WE SHOULD KEEP ON MIND

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Case Description: A 62-year-old caucasian male developed hypothyroidism after second-line treatment with pembrolizumab for stage IV squamous cell lung carcinoma. At the consultation he reported progressive asthenia with an increase in the last week. Further clinical history and physical examination were unremarkable.

Clinical Hypothesis: Main hypotheses were progression of disease, uncontrolled hypothyroidism and/or adrenal insufficiency due to pembrolizumab induced-hypophysitis.

Diagnostic Pathways: Investigation showed low morning cortisol (1.3 µg/dL), low adrenocorticotropic hormone (3.38 pg/mL) without evidence of other pituitary dysfunction, including thyroid. Cerebral and chest CT showed stable lung disease with pituitary MRI showing a 4 mm adenoma, which does not easily explain hypocortisolism. Was assumed a case of hypophysitis secondary to pembrolizumab. The patient started on hydrocortisone with progressive clinical improvement.

Discussion and Learning Points: Pembrolizumab is an antibody targeting programmed death-1 receptors (anti-PD1) and enhances the immune response against tumoral cells. Second line therapy with pembrolizumab in non-small-cell lung cancer patients with PD-L1≥1% showed in the phase III trial KEYNOTE-010 improvement of overall survival and quality of life. Hypophysitis related to anti-PD1 is a rare but serious adverse effect (AE) without distinctive clinical presentation. Endocrine AEs frequently do not require cessation of immunotherapy. Early identification of endocrine AEs related to immune checkpoint inhibitors and a right treatment is of utmost relevance to prevent treatment interruptions and organ failure. In this case, following a first endocrine AE to Pembrolizumab, the patient developed an hypophysitis needing hormonal replacement. This emphasizes the need for an early identification of immunotherapy related hypophysitis to prevent serious complications.

DOI: 10.12890/2022_V9Sup1

502 / #EV0466

EVALUATION OF THE OPTIMIZATION OF ANTIDIABETIC TREATMENT IN PATIENTS WITH DIABETES MELLITUS, HOSPITALIZED IN THE INTERNAL MEDICINE SERVICE OF THE HOSPITAL DE TERRASSA

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Background and Aims: Diabetes mellitus has become a major health problem and represents one of the diseases with the greatest social and health impact. The prevalence of diabetes in Spain is around 14%, with a tendency to double in the coming decades. A correct approach and optimization of the treatment is useful and necessary for the control of the pathology and consequently for the reduction of the derived complications.
Methods: Descriptive and retrospective observational study. Patients admitted to the internal medicine service of the Hospital de Terrassa during the first quarter of 2021 are included.
Results: A total of 186 diabetics were analyzed, 55.91% men and 44.09% women. With a mean age of 74.59 years. In 66.67% of the patients HbA1c was requested during admission, with a mean value of 7.59%. Three HbA1c ranges were established to assess chronic outpatient monitoring of hospitalized patients, being <7% 42.47%, 7-8.5% 32.80% and> 8.5% 23.66%. At discharge, treatment was optimized for 20.96% of the patients based on HbA1c, of which 82.05% intensified and 17.94% decreased. In 79.03% of the patients, no modifications were made at discharge. Treatment adjustment at discharge in the HbA1c range <7% was 20.51%, in the range 7-8.5% 41.03% and in the range> 8.5% 38.46%.
Conclusions: In patients admitted to the internal medicine service, HbA1c is requested relatively frequently to assess chronic control of diabetes. However, these data do not correlate with a consequent treatment adjustment at discharge, mainly in those patients with worse outpatient glycemic controls.

2087 / #EV0467

MYXEDEMA COMA: A DIAGNOSIS THAT WE CAN'T FORGET

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Case Description: A 75-year-old female patient with insulin-dependent diabetes, post-surgical supplemented hypothyroidism (levothyroxine 175 mcg/daily), pemphigus foliaceus under prednisolone 5 mg/daily and recent hospitalization due to SARS-Cov-2 pneumonia, was admitted in the emergency department with anorexia, hypoglycemia (32 mg/dL) and oliguria. On physical examination she was dehydrated, lethargic, bradycardic and with hypotension refractory to fluid resuscitation. Investigation showed acute kidney injury with metabolic acidosis and hyperlactacidemia. Reno-vesical ultrasound excluded obstruction and urgent hemodialysis was started.
Clinical Hypothesis: Adrenal insufficiency with/or myxedema coma and ischemic acute tubular necrosis.
Diagnostic Pathways: Taking into account the clinical suspicion of myxedematous coma associated with adrenal insufficiency, administration of levothyroxine (300 mcg EV bolus and then 100 mcg/daily) plus hydrocortisone (100 mg 8/8h EV) were started. Laboratory results later confirmed the hypothesis (TSH 93.42 uUI/mL and T4 0.61 ng/dL). The state of hypoperfusion caused an ischemic acute tubular necrosis. With hormonal replacement and temporary dialysis, the patient had an improvement of renal function and overall clinical status.
Discussion and Learning Points: Myxedema coma is an endocrine emergency and the most serious clinical presentation of hypothyroidism. Impaired consciousness is the hallmark, but it can also present with bradycardia, hypotension and hypothermia. Although rare, it is associated with high mortality and could occur in long standing hypothyroidism or be precipitated by an acute event such as infection. With this clinical case we want to represent the importance of having a low threshold to consider the diagnosis, as an early identification and prompt hormonal replacement may be life saving.

2088 / #EV0468

PITUITARY APOPLEXY

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Case Description: Pituitary apoplexy is a rare, potentially fatal clinical syndrome caused by infarction or hemorrhage of the pituitary gland. The classic clinical presentation, sudden onset of headache, vomiting, visual disturbances and decreased consciousness, only occurs in a small percentage of patients, being more common the subacute presentation, with nonspecific symptoms. We present the clinical case of a 62-year-old woman with no relevant personal pathological history who came to the emergency department due to sudden headache, vertigo and arterial hypertension, without other accompanying symptoms.
Clinical Hypothesis: Laboratory studies disclosed new onset hyponatremia (sodium of 124 mmol/L) and she was admitted to the internal medicine service for further study.
Diagnostic Pathways: The cranioencephalic magnetic resonance imaging presented suggestive aspects of pituitary apoplexy. She was referred to endocrinology and neurosurgery, undergoing surgery to remove the lesion, pathologically identified as null cell adenoma.
Discussion and Learning Points: This was an important finding for the timely orientation of the patient, as it is a neuroendocrine

 DOI: 10.12890/2022_V9Sup1

emergency that requires a multidisciplinary approach with collaboration of endocrinology, neurology, ophthalmology and neurosurgery to ensure rapid and adequate treatment.

L. Sibal, S. Ball, V. Connolly, R. James, P. Kane, W. Kelly, et al. Pituitary apoplexy: a review of clinical presentation, management and outcome in 45 cases. Pituitary, 7 (2004), pp. 157-163

1937 / #EV0469

COAGULATION IMBALANCE IS ASSOCIATED WITH HEPATIC FIBROSIS AND VASCULAR COMPLICATIONS IN PATIENTS WITH TYPE2 DIABETES AND NAFLD

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Background and Aims: Non-alcoholic fatty liver disease and type 2 diabetes mellitus (T2DM) have a pro-coagulant state and expose patients to vascular complications. Aim: to evaluate in patients with T2DM and NAFLD if coagulation alterations are associated with hepatic fibrosis and vascular complications.

Methods: 96 outpatients with T2DM and ultrasound fatty liver were enrolled. Serum pro- (factor II-FII, factor VIII-FVIII) and anti-coagulant factors (protein C, antithrombin-AT) and test of thrombin generation (ETP ratio, FVIII/PC) were determined. Liver fibrosis (>F2) was diagnosed by Fibroscan (liver stiffness measurement-LSM>7.0/6.2 kPa M/XL probe). Microvascular (retinopathy, nephropathy and neuropathy) and macrovascular complications (carotid plaques and previous cardiovascular (CV) events) were assessed.

Results: Mean age 65±7 years, 66% male. Significant hepatic fibrosis by LSM was present in 14% of the cohort, microvascular complications in 30% (retinopathy 8%, nephropathy in 23% and neuropathy in 4%), plaques in 73% and CV events in 24%. In multivariate analysis (corrected for age, sex, T2DM duration, HbA1c, overweight, hypertension, use of statins and uric acid), AT (OR 0.89; CI 95% 0.80-0.98) was independently associated with hepatic fibrosis, whereas AT (OR 0.93; CI 95% 0.88-0.98) and FVIII/PC ratio (OR 8.0; CI 95% 1.00-65.8) with microvascular complications.

Conclusions: In patients with T2DM and NAFLD a pro-coagulant imbalance was associated with hepatic and vascular complications, speculating on a possible common pathogenetic pattern. Further studies in wider cohorts are warranted to define the clinical application of these coagulation alterations. However, our results point on the need of a careful evaluation also of hepatic complications in diabetics.

954 / #EV0470

CONSTITUTIONAL SYNDROME, A SUCCESSFUL CASE

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Case Description: Male, 56-year-old, autonomous until 2 months ago. Gardener unemployed. Has priors of alcoholic chronic pancreatitis, diabetes mellitus type 2 and smoking (40UMA). Comes to the ER due to diarrhea 4-6 times/day (no mucus, pus nor blood) in the last four days, difficulty breathing and weight loss (25 Kg in six months (23%)). In the physical exam he didn't present any major alterations besides the evident malnutrition. Without a clear etiology that justifies the clinic but with an elevation of the inflamatory markers associated with an image in the base of the left lung (pseudo nodular lesion versus pneumonia) is admitted in the medicine ward to treat the pneumonia and to study the constitutional syndrome.

Clinical Hypothesis: Cancer disease, descompensated diabetes, pancreatitis.

Diagnostic Pathways: An exhaustive clinical history reveals that the patient has polyuria, keeps very unhealthy eating habits and denies anorexia or vomits. A meticulous physical exam didn't reveal any adenopathies or masses. All other exams done in the diagnostic pathway of the constitutional syndrome came normal and when the blood tests revealed an Hb A1c of 21,5%, the focus shift to the diabetes. During admission, doing a proper nutrition program and adjusting the insulin necessities, not only the patient gained weight but also started to improve his physical condition. Nowadays is an independent person.

Discussion and Learning Points: The authors want to enhance the importance of clinical history to identify triggers that can unbalance chronic diseases, such as diabetes, that goes beyond organic causes. The diabetes, as a multi systemic disease, demands an holistic approach of the patient.

2410 / #EV0471

WHEN TOPIRAMATE IS THE ONE TO BLAME.

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Case Description: Topiramate is an anti-epileptic drug also used in the treatment of neuropathic pain, bipolar disorder and migraine. As it is a carbonic anhydrase inhibitor, one of its effects may be metabolic acidosis due to bicarbonate renal loss. The authors

 DOI: 10.12890/2022_V9Sup1

present a case of a 62-year-old female with priors of bipolar disease and chronic renal failure, medicated with topiramate, vitamine D, folic acid, venlafaxine, allopurinol and levomepromazine. She presented at the emergency room with myalgia and generalized weakness in her upper and lower limbs for the last week, more accentuated on the day of admission. The neurological exame revealed diminished strength without affecting the osteotendinous reflexes. Blood test showed no alteration in the blood count, blood urea nitrogen of 20 mg/dl, creatinine of 1,9 mg/dl, sodium of 145 mEq/L, potassium 1,9 mEq/L, chlorine 121 mEq/L, and myoglobine of 2458 mc/l. Gasimetry revealed pH 7.22, pCO2 32.4 mmHg, pO2 68.4 mmHg, HCO3 14.4 mEq/L, AG 8.2.
Clinical Hypothesis: With signs of hyperchloremic metabolic acidosis with severe hypokalaemia, we thought as first diagnostic hypothesis a type II renal tubular acidosis due to topiramate.
Diagnostic Pathways: The administration of potassium improved the neurological symptoms, but the patient maintained the metabolic acidosis, which was resolved by suspending topiramate. The topiramate, as said before, is a potent carbonic anhydrase inhibitor. The lack of reabsorption of bicarbonate in the proximal convoluted tubule causes metabolic acidosis and potassium losses that can cause rhabdomyolysis.
Discussion and Learning Points: The authors want to enhance the importance of monitoring the serum bicarbonate during treatment with topiramate in patients with neurological symptoms such as weakness.

496 / #EV0472

LATENT AUTOIMMUNE DIABETES OF THE ADULT (LADA) – A CHALLENGING DIAGNOSIS

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Case Description: Woman, 42 year-old, past medical history of obesity, hypertension and type 2 DM since early adulthood with adequate glycemic control with oral medication and no evidence of target organ damage. She was admitted to internal medicine ward due to incidental finding of acute renal injury with metabolic acidosis with normal anion gap and hyperglicemia. She was asymptomatic, denied therapeutic non-compliance or use of corticosteroids. Physical examination showed central obesity, hirsutism, alopecia and facial plethora. Medical history's prominent finding was a sudden deterioration of glycemic control 2 months earlier – HbA1c 11% on a routine evaluation (previous HbA1c 7%). For that reason her general practicioner prescribed insulin and uptitrated it until 70 UI/day without significant improvement.
Clinical Hypothesis: Exclusion of major etiologies of refractory hyperglycemia: active infection, endogenous hypercortisolism, occult neoplasm, diabetes progression with beta cell disfunction.
Diagnostic Pathways: Endogenous hypercortisolism was excluded (24-hour urinary free cortisol and dexametasone suppresion test). Toraco-abdomino-pelvic CT showed no suspicious mass or lymphadenopathy. Positivity for anti-GAD with high titers established LADA diagnosis and high C-peptide showed preserved beta-cell function with insulin resistance features. She started a GLP-1 agonist in association with insulin and was evaluated in outpatient setting after a month showing significant improvement.
Discussion and Learning Points: The present case highlights the necessity of a high suspicion level in the management of diabetes mellitus in young adults. Early diagnosis of uncommon forms of DM such as LADA is fundamental, not only to plan an individualized therapeutical approach but also a strict follow-up, since progression to beta cell disfunction is inevitable.

1333 / #EV0473

UNEQUEAL ANSWER TO GLUCAGON-LIKE-PEPTIDE-1 ANALOGUES

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Case Description: We present the case of a 50-year-old man with type 2 diabetes mellitus and obesity (BMI of 37 kg/m^2 and a glycosylated hemoglobin of 13.1%). With basal-bolus therapy, he required up to 90 IU of insulin. Exenatide 5 mg is started twice a day with an excellent response: after a month, a reduction in HbA1c can be observed to values of 8.6% in addition to a decrease of 15 cm in the abdominal perimeter. During his subsequent follow-up, without a clear reason, it was decided to switch to liraglutide 1.2 mg daily. This change is translated early in an increase in weight and HbA1c.
Clinical Hypothesis: The existence of differences between the GLP-1 analogs.
Diagnostic Pathways: Analysis and physical examination.
Discussion and Learning Points: Approximately 60-70% of insulin secretion by the beta cell is stimulated by the release of the incretin hormones (including glucagon-like peptide 1). Based on this mechanism, new drugs have been developed; the GLP-1 analogs, demonstrating their usefulness and benefit on multiple levels. Despite this, there are no specific recommendations on which GLP-1 analog to choose in clinical practice. A 2016 systematic review analyzes the data from 34 clinical trials with the different GLP-1 receptor analogs, concluding the absence of significant differences between them. But in our case, we find relevant differences. After a review of the literature and identifying the profile of our patient, we conclude that there is a bibliographic gap in this regard and that comparative studies between GLP-1 analogs are necessary to try to define predictive patterns of success.

 DOI: 10.12890/2022_V9Sup1

2573 / #EV0474

ASSESSMENT OF COGNITIVE IMPAIRMENT IN TYPE 2 DIABETICS

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Background and Aims: Cognitive impairment (CI) is an important complication of type 2 diabetes mellitus (T2DM). Due to limited data in Pakistan, this study was planned to determine the prevalence of CI in T2DM patients presenting in the clinic of a tertiary care hospital.
Methods: This cross-sectional study was conducted at the Medicine clinics of Aga Khan University Hospital, Karachi. All diabetics of age 45-75 years, of either gender, were included in the study. Ascertain Dementia 8-Item Informant Questionnaire (AD8) was used to assess diabetic patients for CI. The outcome variable, CI was stratified by age, gender, duration of diabetes, education, occupation, residence, and treatment status.
Results: The frequency of CI in patients with T2DM was 33 (16.5%) cases. CI was seen to be significantly more in diabetic patients of age ≥55 years than age <55 years (26.3% vs 6.9%), females than males (22.4% vs 8.3%), patients living in rural areas than urban areas (29.3% vs 8.8%) and with duration of diabetes more than 6 years compared to less than 6 years (25.3% vs 9.2%). 24.5% diabetic patients taking insulin compared to 7.4% taking oral hypoglycemics were found to have CI (p-0.001).
Conclusions: Increasing age, female gender, low level of education, long-standing diabetes, patients on insulin, and residents of the rural areas were all found to be significantly associated with CI. Screening the diabetic population for CI at the level of primary care is very important so that they can be referred promptly and accurately to a neuropsychiatrist for further treatment without major delays.

1235 / #EV0475

REBOUND-ASSOCIATED MULTIPLE VERTEBRAL FRACTURES AFTER DISCONTINUATION OF DENOSUMAB IN GLUCOCORTICOID-INDUCED OSTEOPOROSIS: A SECOND LEVEL HOSPITAL EXPERIENCE.

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Background and Aims: Denosumab is a monoclonal antibody against RANK-L receptor approved for the treatment of postmenopausal osteoporosis and glucocorticoid-induced osteoporosis (GIOP). The two main problems observed after discontinuation were a return at previous densitometric values and multiple vertebral fractures. The Spanish Drug Agency emitted an alert warning prescriptors from discontinuing denosumab. The aim of our study was obtaining the prevalence of vertebral fractures after the discontinuation of denosumab in our hospital, particularly in those who were diagnosed with GIOP.
Methods: Observational cross-sectional study through medical records provided by the Unit of Hospital Pharmacy in patients who were prescribed denosumab since 2013 by the Autoimmune Diseases Unit of San Cecilio University Hospital.
Results: 117 patients were identified. 29% have discontinued denosumab. Among these patients, the main cause of discontinuation was dental intervention (26%). GIOP was the principal diagnosis for prescribing denosumab (65%). 75% of the patients who discontinued denosumab did not receive any antiresorptive agent. A total of 4 patients (all of them women) suffered multiple vertebral fractures after discontinuing denosumab. The number of vertebral fractures were 1, 3, 4 and 6, respectively.
Conclusions: A relative high prevalence of vertebral fractures was identified among our sample (11.8%). These data suggest the necessity of establishing a protocol in order to avoid this rebound effect in people who need to stop denosumab, for example, changing to another antiresorptive therapy (for example, teriparatide or bisphosphonate) once denosumab is discontinued.

2049 / #EV0476

CHANGES IN OBESITY METABOLIC PHENOTYPES AFTER 5-YEAR DIET INTERVENTION: FROM THE CORDIOPREV STUDY.

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Background and Aims: The risk of obesity-associated diseases varies widely with same body mass index (BMI), being necessary new tools to understand this condition, such as metabolic phenotypes. They are defined on BMI and metabolic disorders. We aimed to study the evolution of Metabolic Healthy Obese (MHO) and Metabolic Unhealthy Obese (MUO) after two diets.
Methods: A subgroup of 221 obese cardiovascular patients from CORDIOPREV study were selected and randomized to Low-Fat (LFD) or Mediterranean diet (MD). Anthropometric and biological variables were analyzed for 5 years.
Results: MHO represented 14% among obeses at baseline: 62.9% of them became unhealthy. Number of metabolic abnormalities increased (p<0.001) from a mean (SD) of 0.74 (0.44) to 2.02 (1.17)

 DOI: 10.12890/2022_V9Sup1

after follow-up. Despite of a statistically significant decrease in BMI (p=0.046), HOMA-IR increased [1.7(0.8) - 2.4(1.5), p<0.001] and HDL decreased [48.5(9.0) - 45.3(9.4), p= 0.001]. Most of MUO (73.9%) remained in this phenotype. 9.7% became healthy associated to a BMI decrease, especially in LFD [34.3(3.6) - 33.4(4.0), p<0.001] and a liver fat reduce. Triglycerides and glucose levels improved without differences between diets. Inflammation declined more with MD [2.8(2.2) - 2.4(1.9), p=0.006].
Conclusions: Obesity could be understood as a dynamic process. MHO is less frequent, with a relatively fast transition to MUO. By contrast, it is more difficult for MUO to recover a healthy metabolic state. Chronic intervention with healthy diets could influence the evolution of metabolic phenotypes. More studies focused on avoiding the process from healthy to unhealthy obese, and to accelerate the reverse evolution are needed.

996 / #EV0477

HYPERCALCEMIA ALWAYS A RELEVANT CLUE

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Case Description: A 77-year man, with hypertension, dyslipidemia, chronic kidney disease, kidney stones and chronic alcoholism, went to the emergency room due to a fall from his own height, associated with imbalance and chest pain. Laboratory: leukocytosis with neutrophilia, C-reactive-protein of 12.4 mg/dL, creatinine (Cr) of 2.44 mg/dL, urea of 134 mg/dL (baseline Cr of 1.27 mg/dL), hypercalcemia of 14.4 mg/dL (ionized Ca2+) and summary exam of urine with leukocyturia. Hypercalcemia and acute chronic kidney disease admitted at the time of hospitalization in a probable context of dehydration and urinary tract infection.
Clinical Hypothesis: The research carried out highlights moderate hypercalcemia (12.9 mg/dL), increased parathyroid hormone (1326 pg/mL), decreased total vitamin D (8.8 ng/mL) and normal phosphorus. He started therapy with pamidronate in perfusion with good response (calcium of 10.9 mg/dL). Favorable evolution of renal function after intravenous fluid therapy. Negative urine culture. Parathyroid scintigraphy revealed persistent hyperfixation below the lower pole of the left thyroid lobe. Thyroid ultrasound showed a voluminous parathyroid adenoma infra adjacent to the lower pole of the left lobe of the thyroid gland, corresponding to a solid hypoechoic nodule (regular contours).
Diagnostic Pathways: The etiological investigation of the described case was consistent with primary hyperparathyroidism (parathyroid adenoma), the absence of symptoms, the analytical evaluation and the echographic characteristics.
Discussion and Learning Points: This case reveals the importance of hypercalcemia as a clue to the diagnosis.

1491 / #EV0478

TYPE 2 DIABETES IN YOUNG ADULTS, HOW IMPORTANT IS LIFESTYLE MODIFICATIONS – CASE PRESENTATION

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Case Description: Type 2 diabetes mellitus (T2DM), once considered a disease of old age, now occurs not uncommonly in children and especially in young adults. Youth-onset type 2 diabetes is on the rise, and trends in childhood obesity only partially explain the resent appearance of a condition that was previously confined to adults. The difficulty in T2DM in young adults highlights the critical need to promote healthy lifestyle to prevent or postpone the development of T2DM in those at risk. For individuals with early onset T2DM, glycemic control must be carefully monitored and treated. We reported here a case of a 21year old male that provides a successful management and treatment of the use of metformin, liraglutide and most important lifestyle modifications to reduce body weight in young obese patient with poorly controlled and new diagnosed T2DM.
Clinical Hypothesis: Youth-onset type 2 diabetes is on the rise, and trends in childhood obesity only partially explain the resent appearance of a condition that was previously confined to adults.
Diagnostic Pathways: The difficulty in menagment of T2DM in young adults highlights the critical need to promote healthy lifestyle.
Discussion and Learning Points: The difficulty in treating T2DM in youth highlights the critical need to promote healthy lifestyle to prevent or postpone the development of T2DM in those at risk. Young adults with diabetes risk factors, such as a family history of diabetes, should be considered for screening of diabetes and metabolic disorders

2576 / #EV0479

TROMPE L'OEIL: WHAT ANAEMIA HIDES INSIDE

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Case Description: A 78-years old man affected from chronic ischaemic cardiopathy with antiplatelet treatment with acetylsalicylic acid. He also suffered from a nasopharynx carcinoma in 2019 treated with volumetric modulated arc therapy in complete remission. Hospitalized because of unexplainable hypotension episodes and persistent anaemia with finding of several vascular lesions throughout the small bowel, being fulgurated successfully. Nevertheless these episodes persist despite of normalization of haemoglobin levels. He also showed on evolution symptomatic hypoglycaemic episodes and referred ophthalmologic disturbances of sudden onset.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: A suprarenal insufficiency is considered.
Diagnostic Pathways: ACTH stimulation test was compatible with suprarenal insufficiency. Hormonal study showed panhypopituarism with hypothyroidism, hypogonadotropic hypogonadism and growth hormone deficit. No microbiological isolations were obtained and including gamma-interferon test was negative. Autoimmunity parameters were negative. A computed tomography showed uncountable small lesions in both hepatic and splenic parenchyma. A cranial computed tomography revealed an intracranial recurrence of nasopharynx carcinoma with involvement of several right intracranial structures. It was also suggested a pituitary neoplastic involvement. After multidisciplinary presentation, palliative ambulatory care was offered.
Discussion and Learning Points: Neoplastic pituitary infiltration is a rare cause of suprarenal insufficiency. This pathology must be suspected in patients with hypotension and hypoglycaemic episodes, and also if anaemia or hydrelectrolitic abnormalities coexist. Clinical antecedent joint to ophthalmologic disturbances must drive sanitary professionals to consider a neoplastic cause of this syndrome.

1392 / #EV0480

THE RELATION OF ALCOHOL CONSUMPTION, SMOKING, PHYSICAL ACTIVITY WITH WEIGHT STATUS AND SOCIO-DEMOGRAPHIC FACTORS IN A REPRESENTATIVE GROUP

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Background and Aims: Excessive weight is influenced by lifestyle factors such as alcohol consumption,smoking and physical activity,which impact energy balance,food behavior,weight status and subsequent comorbidities.The aim of our study was to evaluate the relation of alcohol consumption,smoking,physical activity with weight status and socio-demographic factors.
Methods: The study group included 311 people and was representative for the adult general population of Galati county,Romania according to gender,age,residence.Weight status was assessed by weight,height,abdominal circumference(AC),and body mass index (BMI) .Physical activity(PA) evaluated whether persons performed ≥30 minutes for ≥3 times/week of walking,cycling, jogging, sports. Alcohol intake was evaluated as ”no”, ”occasionally”, ”weekly”, ”daily”; while smoking was assessed as ”smoker”, ”ex-smoker”, ”non-smoker”.
Results: Significant relations were obtained for AC (and not for BMI) and alcohol consumption-direct relation [F(3.303)=6.314, p<0.001], smoking status and BMI-inverse relation [F(2.302)=4.846, p=0.008], physical activity and BMI-direct relation [t(309)=-4.017, p<0.001] and BMI categories [X2(5)=17,969, p=0.003],physical activity and AC-direct relation [t(309)=-4.017, p<0.001] and AC risk categories [X2(5)=17,969, p=0.037].
Alcohol was consumed more in men, middle-aged, middle and high income or during summer. Smoking was more present in men, young adults, urban residence, middle-low and high income. AC was influenced by combinations of factors: smoking-gender [F(2)=3.207, Sig.=0.042, eta=0.021], smoking-age [F(10)=2.347, Sig.=0.011, eta=0.076],smoking-season [F(2)=3.748, Sig.=0.025, eta=0.025]. PA was performed more often in young adults and during summer.
Conclusions: The results of the study confirmed the scientific data regarding the influence of modifiable and non-modifiable factors on weight status in a specific population.

2429 / #EV0481

SUDOMOTOR NEUROPATHY IN A PATIENT WITH TYPE 1 DIABETES

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Case Description: A 61-year-old industrial engineer with type 1 diabetes since he was 37 years old. Currently controlled with insulin glargine and aspart. HbA1c below 6% for 15 years (last test 5.8%). For about five years and progressively, he has presented an increase in sweating on the entire trunk, which is worse when standing and improves in decubitus position. It soaks his shirt and jacket affecting his workplace performance. The hyperhidrosis is not related to glucose level and has not improved with amitriptyline, gabapentin or pregabalin. Denies pain, cramps, tingling or leg claudication. No erectile dysfunction, retinopathy or microalbuminuria.
Clinical Hypothesis: Sudomotor neuropathy due to postganglionic sympathetic autonomic dysfunction has been poorly studied in patients with diabetes and can be very disabling.
Diagnostic Pathways: The examination of the nervous system and lower limbs was normal. No significant changes in the ECG or lower limbs' EMG. The thermoregulatory sweat test showed marked anhidrosis in lower limbs and compensatory hyperhidrosis in axillary regions, upper limbs and chest. The postganglionic sudomotor function test demonstrated a normal direct sweating index in forearms and decreased in leg and foot bilaterally. The pilocarpine iontophoresis test revealed decreased density of sweat glands in the right forearm and very decreased in the right leg and foot. A decreased parasympathetic cholinergic function was observed in response to Valsalva maneuver, deep breathing and active orthostatism.
Discussion and Learning Points: Sudomotor neuropathy with small fiber involvement is characteristic of diabetic autonomic

 DOI: 10.12890/2022_V9Sup1

dysfunction. Carrying out specific investigations of the autonomic nervous system is necessary in these patients for an accurate diagnosis.

1788 / #EV0482

INFLAMMATION AS RISK FACTOR IN HYPERTENSIVE TYPE 2 DIABETIC PATIENTS.

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Background and Aims: Left ventricular hypertrophy (LVH) in hypertensive diabetic patients is a well-known predictor of cardiovascular events independent of coronary artery disease .The aim of the present study is to evaluate the relation of LVH to fibrinogen and C-reactive protein (CRP) as markers of inflammation and susceptibility to atherothrombosis.
Methods: We selected 100 adults with type 2 diabetes. 52 were women and 48 were men, mean age 45±14.Hypertension was defined by systolic blood pressure (SBP) 130 mmHg and/or diastolic blood pressure (DBP) 85 mmHg. Diabetes was defined by fasting plasma glucose levels 126 mg/dl or by specific treatment. BMI was calculated by the standard formula. The left ventricular mass index (LVMI) has been evaluated according to the method of Devereux and Reichek. Participant's laboratory data were examined in the morning after an overnight fast 12 h. The levels of CRP and fibrinogen have been measured.
Results: From 100 participants, 44 (44%) presented LVH, which was associated with higher BMI and CRP, fibrinogen levels, left ventricular hypertrophy, markers of inflammation. We found relationships between fibrinogen and concentric LVH ($p<0.001$) and also between CRP with concentric hypertrophy ($p<0.005$.)
Conclusions: 44 patients presented concentric LVH, 20 patients eccentric LVH, and 36 patients normal LV mass. Concentric LVH was associated with elevated markers of systemic inflammation and susceptibility to atherothrombosis (CRP and fibrinogen levels) independently of clinically overt cardiovascular disease and traditional cardiovascular risk factors. No correlation was found between CRP and fibrinogen and eccentric LVH.

1808 / #EV0483

METABOLIC SYNDROME AND HYPERURICEMIA AMONG TYPE 2 DIABETES.

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Background and Aims: Hyperuricemia is a high risk factor for atherosclerotic diseases such as CVD and carotid atherosclerosis, hypertension, type 2 diabetes mellitus (T2DM), metabolic syndrome (MS). There are complex interrelationships between hyperuricemia, T2DM, and MS. The purpose of our study was to investigate the relationship between hyperuricemia and MS, and its components.
Methods: 179 patients with T2DM were included. The baseline presence of components of metabolic syndrome as defined by the World Health Organization was determined. Hyperuricemia was determined as serum uric acid level above 7 mg/dL in men and 6 mg/dL in women.
Results: Following the analysis of the studied group, out of the 179 cases, 131 were identified with hyperuricemia and 48 with normo-uricemia. The prevalence of hyperuricemia was 73%. The average age of the patients was 73 years. In patients with hyperuricemia, the mean values of SBP and DBP were statistically significant higher than in patients with normo-uricemia ($p<0.01$), the mean HDL-cholesterol value being statistically significant lower in the hyperuricemia group ($p><0.003$). Triglycerides had statistically significant higher values in the hyperuricemia group ($p<0.01$), the mean HDL-cholesterol value being statistically significant lower in the hyperuricemia group ($p><0.005$). The mean HDL-cholesterol value being statistically significant lower in the hyperuricemia group ($p<0.01$).
Conclusions: Among diabetic patients with hyperuricemia, the prevalence of obesity, hypertension, MS and its components are statistically significantly higher than in patients with normo-uricemia.

2285 / #EV0484

A SURPRISING POST-SURGERY

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Case Description: A 63-year-old man attended to Emergency for fifteen days of abdominal pain and distension.
He had a recent diagnosis of clear-cell renal carcinoma, having required laparoscopic nephrectomy fifteen days before.
Clinical Hypothesis: A week after the surgery he began with abdominal discomfort and progressive increase of abdominal perimeter. He had good general condition, with distended abdomen and ascites wave.
Diagnostic Pathways: An abdominal CT scan showed abundant ascites. It was performed a diagnostic and evacuating paracentesis. The study of the ascites fluid was milky and reflected a triglyceride level more than 2750 mg/dL and glucose of 320 mg/dL. The rest parameters were normal. The patient was diagnosed of chylous ascites secondary to rupture of the thoracic duct during nephrectomy. Parenteral nutrition was started and octreotide LAR was requested urgently, with good progress. Subsequently, a low-fat diet supplemented with medium-chain triglycerides was established, and after six days of admission he was discharged home for follow-up in the clinic.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: Chylous ascites refers to peritoneal fluid with a milky appearance rich in triglycerides (lymph). The etiology is diverse, being the most frequent neoplastic and secondary to external aggression (trauma or surgery). The clinic may be nonspecific, as a painless and progressive increase in the abdominal perimeter. It is diagnosed with a paracentesis and the CT shows the existence of fluid, but lymphangiography is the gold standard (hardly used). The cause should be treated whenever possible. Subsequently, we have to facilitate the decrease in lymph production: fat-free diet supplemented with medium-chain triglycerides, and drugs: orlistat, somatostatin or octreotide.

2195 / #EV0485

A PRACTICAL APPROACH TO DYSPNEA

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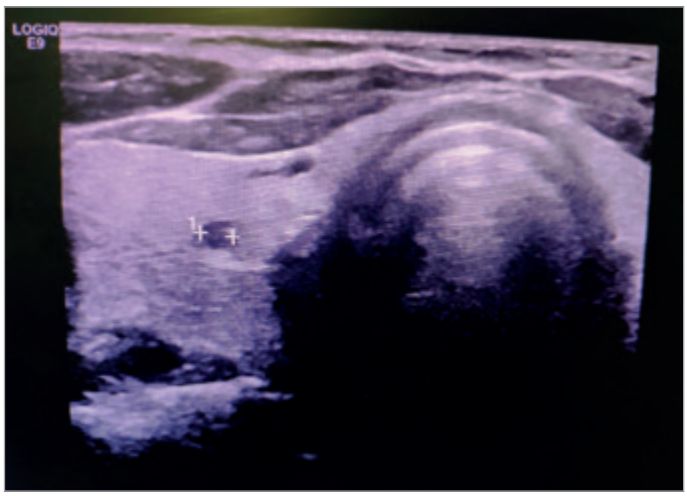
Case Description: A 62-year-old alcoholic male with chronic alcoholism was admitted to our hospital due to progressive dyspnea with peripheral vertigo and instability, 6 months before diagnosed with coronary syndrome without angiographic lesions. Poor general condition on physical exploration, diaphoresis and generalized tremor with stiffness and significant spasticity, similar to tetany. BP 140/110 mmHG with sinusal tachycardia at 120-130 bpm, 97% saturation with tachypnea using accessory abdominal muscles and generalized hypoventilation.
Clinical Hypothesis: Blood test was realized with prerrenal failure (serum creatinine 1.84 mg/dL) with metabolic acidosis (pH 7.19, partial pressure of CO2 49.0 mmHg, bicarbonate 18.7 mmol/L) without ionic alteration excepting calcium 6.0 mg/dL (ionic calcium 2.56 mg/dL) and magnesium <0.60 mg/dL, leukocytosis15.960/dl with neutrophils 14.010/dl. Prothrombin time 15.7 seconds with Quick activity 58% and 1.41 INR, D dimer 1010 ng/mL. Calcium gluconate and magnesium sulfate were iniziated, with better improvement, less tremors and less dyspneic sensation.
Diagnostic Pathways: See Figure 1.
Other tests were performed: negative stool cultures and detection of *Clostridium difficile* toxins, HIV, hepatitis B and C serologies were negative. Normal TSH, cortisol, ACTH, and aldosterone levels, as well as vasoactive intestinal peptide and catecholamines in 24-hour urine. Elevated PTH (113 pg/ml) and decreased vitamin D (8 ng/ml). Parathyroid ecography without patholic ecostructure.
Discussion and Learning Points: Alcohol abuse may result in a wide range of electrolyte and acid base disorders including hypophosphataemia, hypomagnesemia, hypocalcemia, hypokalemia, metabolic acidosis and respiratory alkalosis. Disturbance of consciousness in alcoholic patients is observed in several disorders, such drunkenness, Wernicke encephalopathy, alcohol withdrawal syndrome, central pontine myelinolysis, hepatic encephalopathy, hypoglucemia and electrolyte disorders.



#EV0485 Figure 1.

1249 / #EV0486

SYSTEMIC AMYLOIDOSIS WITH CARDIAC ENVOLVEMENT - A CLINICAL CASE

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Case Description: An 80-year-old man, with a history of smoking and alcoholic habits, with follow up in internal medicine outpatient department for the study of heart failure of undetermined etiology (easy tiredness and lower limbs edema), in association with marked weight loss (30 kg).
Clinical Hypothesis: Cancer, hypertiroidism, coronary artery disease, infiltrative cardiomyopathy.
Diagnostic Pathways: From the analytical study carried out, the following stood out: mild mixed hyperbilirubinemia, GGT increase, no change in transaminases, SV 40mm/h; serum immunofixation with polyclonal increase in IgG, IgA and Kappa and Lambda light chains, with no change in urinary immunofixation. ECG in sinus rhythm, 66 bpm, low-voltage complexes and anterior left hemiblock. Transthoracic echocardiography documented left ventricular wall thickening, suggestive of infiltrative cardiomyopathy. Cardiac magnetic resonance imaging showed asymmetric left ventricular hypertrophy with biventricular global systolic dysfunction and enhancement study suggestive of amyloid infiltration. Through abdominal fat biopsy, the definitive diagnosis of AL amyloidosis was made. The patient started diuretic therapy with some improvement.
Discussion and Learning Points: Cardiac amyloidosis is a rare condition. Diagnosis requires a high level of suspicion based on clinical findings and complementary diagnostic tests, and definitive diagnosis always requires histological demonstration. Treatment is aimed at the underlying disease and symptom relief. The prognosis is poor in cases of AL amyloidosis with cardiac involvement.

 DOI: 10.12890/2022_V9Sup1

664 / #EV0487

FROM ASYMPTOMATIC HYPERURICEMIA TO DISABILITY.

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Case Description: A middle age man presented to the emergency department with polyarthralgia without local signs of inflammation or associated fever. He had past medical history of hyperuricemia with difficult metabolic control. At physical examination he presented pronounced gouty tophi in both hands and feets, and he complained of not being able to button a shirt for years.
Clinical Hypothesis: The diagnosis of gouty arthritis became the most likely and the patient was treated accordingly.
Diagnostic Pathways: Gout is a type of inflammatory arthritis that results from the deposition of monosodium urate crystals. Most often it presents as asymptomatic hyperuricemia with punctual exacerbations, eventually translating into chronic arthritis, with the formation of gouty tophi or local granulomatous reactions. When present, tophi are located near joints, subarticular regions, bursae, tendons and articular cartilage. Subcutaneous presentation often occurs on the fingers, wrists, knees, olecranon, and pressure points.
Discussion and Learning Points: Currently, it is less common to observe exuberant gouty tophi, given the primary prevention present in good clinical practices, which not only decreases the risk of this highly disabling clinical presentation, as does the impact in reducing cardiovascular risk and nephropathy. NOTE: this case report is accompanied by important images.

1262 / #EV0488

CHRONIC DIARRHEA AS AN UNCOMMON PRESENTATION OF MEDULLARY THYROID CARCINOMA

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Case Description: A 46-year-old man came to the emergency department due to diarrhea and tiredness for the past 3 months. He had lost 14% of his body weight. There were no other symptoms to report. Past medical history was irrelevant, except for 10 cigarettes/daily. Physical examination and family history were unremarkable. Lab studies showed a marked elevation of procalcitonin, with a normal C-reactive protein. An ambulatory abdominal CT scan showed multiple hepatic nodules suggestive of metastases. Endoscopic study of the gastrointestinal tract showed no pathological signs. The patient was admitted for an etiological study.
Clinical Hypothesis: Occult primary neoplasia, chronic inflammatory disease.
Diagnostic Pathways: An extensive laboratory study was normal, except for an increased PCT and calcitonin. CT scan found a large, heterogeneous thyroid and supraclavicular adenopathies. Cervical ultrasound showed a suspicious hypoechogenic, lobulated, irregular nodule on the right thyroid lobe with cervical adenopathies. The FDG-PET supported the diagnosis of medullary thyroid carcinoma (MTC) with lymph nodes, bone marrow, and liver metastases. FNA biopsy of the thyroid nodule confirmed the diagnosis. Study for MEN syndrome was negative. Total thyroidectomy and modified radical right lateral compartment of the neck dissection were performed. Pathological staging was T2N1bM1 (stage IVC).
Discussion and Learning Points: Initial evaluation of chronic diarrhea should search for alarm signs that require additional evaluation. Elevated PCT and constitutional symptoms must raise suspicion for MTC. The most common presentation of sporadic MTC is a solitary thyroid nodule. Systemic symptoms may occur due to calcitonin overproduction and usually are present in patients with advanced disease.

 DOI: 10.12890/2022_V9Sup1

2070 / #EV0489

HYPONATREMIA IN MULTIPLE MYELOMA

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Case Description: We report a clinical case of a 79-year-old patient diagnosed with multiple myeloma in May 2021, on treatment with bortezomib and prednisone, who came to the emergency department for decreased level of consciousness. Blood test showed severe hyponatremia with a decrease in levels from 137 mEq/l to 109 mEq/l (NV: 135-145) in less than a month.
Clinical Hypothesis: As a differencial diagnosis of hyponatremia, in the presence of low osmolarity (< 275 mOsm/l) and normal extracellular volume (no oedema or hypotension), we should think about hypothyroidism, adrenal insufficiency or inadequate secretion of antidiuretic hormone (SIADH) as the most probable causes.
Diagnostic Pathways: In the blood analysis the patient presented normal thyroid and adrenal hormone studies, leaving SIADH as the most probable cause of hyponatremia. The imaging tests and the patient's symptoms did not guide to other secondary causes, which led us to focus on the patient's treatment. Reviewing previous analytical tests, the patient had a decrease in his levels of natremia since the beginning of bortezomib.
Discussion and Learning Points: Bortezomib-induced SIADH has been well documented in previous case reports. Due to the need of continue with chemoterapy treatment in this patients, urea or tolvaptan are drugs used concomitantly to prevent hyponatremia. In our case, we introduced urea 15 g/day with a good response.

Carreño A., Hernández B., Mayoralas A., Calle C.. Syndrome of inappropriate antidiuretic hormone secretion (SIADH) secondary to bortezomib in a light chain multiple myeloma. Treatment with tolvaptan. Nefrol. English Ed. 2017;37(5):558–9.

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SEVERE HYPERCALCEMIA IN ONCOLOGICAL PATIENT

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Case Description: We report a clinical case of a 54-year-old patient who came to the emergency department due to asthenia and weight loss of 10 kg in the last months. In addition, she reported tremor and palpitations. As personal history, the patient had a stage II luminal B breast cancer, operated in 2014 and treated with tamoxifen until August, with no evidence of recurrence in the last mammogram. Blood tests showed severe hypercalcemia with calcium values of 13.79 mg/dL (NV: 8.5-10.2).
Clinical Hypothesis: We proposed as differential diagnosis, due to the presence of constitutional syndrome and severe hypercalcemia, a progression of the oncological process at the bone level as the most probable cause. On the other hand, long-term hyperthyroidism could also justify these findings as well as palpitations and tremor.
Diagnostic Pathways: In order to guide the proposed diagnosis, we ordered a whole body CT scan with no recurrence findings. However, a thyroid goiter was visualized. Blood test showed a TSH <0.01 mIU/l (VN 0.37-4.7) with a T4 of 7.40 ng/dl (VN 0.9-2.3). In addition, we performed a thyroid ultrasound with data of thyroiditis and the patient presented a positive autoimmunity study for Graves' disease.
Discussion and Learning Points: Hypercalcemia derived from hyperthyroidism is an entity that occurs in up to 15-20% of cases. This finding has been related to increased bone resorption. This case underlines that, although the personal history of the patients is important, a differential diagnosis based on the totality of symptoms is always necessary to reach an accurate diagnosis.

1732 / #EV0491

CHRONODISRUPTION AMONG METABOLIC SYNDROME SUBJECTS FROM PREDIMED STUDY

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Background and Aims: Chronodisruption has emerged in recent years as a risk factor to prevent and manage cardiometabolic pathologies. The aim of this study was to assess the differences in lifestyle factors according to chronotype among metabolic syndrome participants.
Methods: The PREDIMED plus study is a randomized controlled trial among metabolic syndrome subjects allocated to a Mediterranean diet or a hypocaloric Mediterranean diet and physical activity advice. We determined the chronotype by a validated Morningness-Eveningness Questionnaire in 308 participants from the PREDIMED study included in Hospital Universitario Reina Sofia (Córdoba) and 154 subjects were classified as morning and 154 subjects were classified as evening based on our score. Every year questionnaires assessing lifestyles factors such as dietary composition and dietary adherence, physical activity and sitting time, and meal and sleep timing during a one-week diary were recorded. To determine the differences in baseline between chronotypes we used analysis of variance (ANOVA). On the 4-year follow-up, we used a general linear model of repeated measures of each year of the study.
Results:Evening subjects showed later meals (breakfast, lunch, dinner, and midpoint of intake) and sleep timing (bedtime and wake time) compare to morning subjects. However, for the

 DOI: 10.12890/2022_V9Sup1

follow-up during the first four years evening chronotype showed to be less active and more sedentary, with lower adherence to a Mediterranean diet.
Conclusions: Our work demonstrated that evening subjects had worse lifestyle factors, with a higher risk of cardiovascular disease among subjects with metabolic syndrome.

232 / #EV0492

OUTCOME PREDICTORS IN PATIENTS WITH HYPERCALCAEMIA. RESULTS FROM AN AMBISPECTIVE COHORT STUDY IN MÁLAGA.

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Background and Aims: Our aim was to analyse the outcomes of patients with hypercalcaemia in a regional cohort.
Methods: Ambispective, bicentric cohort study including all patients diagnosed with hypercalcaemia at Hospital Regional Universitario de Málaga and Hospital de la Serranía (Ronda, Málaga) between 2014-2018. Multivariate analyses were performed using logistic and Cox regression models.
Results: We included 205 patients, mostly from the Internal Medicine departments (69.8%). Mean age was 68.2 years (SD 13.1). Men were slightly predominant (55.1%). Median serum calcium level on admission was 13.1 mg/dl (IQR 11.8-14.6). Most frequent aetiologies were: neoplasms 75.1%; primary hyperparathyroidism 8.8%; drugs 8.8%. Median follow-up was 5.1 weeks (IQR 1.7-60.3). All-cause mortality was 81.5% (median overall survival 5.1 weeks, IQR 3-7.3). Predictors of hypercalcaemia correction are shown in Table 1; AUC 0.72 (0.63-0.8; p<.001). Predictors of post-treatment hypocalcaemia (RR and 95% CI): number of treatments 1.72 (1.17-2.5; p=.006). Predictors of mortality are shown in Table 2.
Conclusions: Biphosphonate use was associated with a higher likelihood of hypercalcaemia correction, as opposed to age and paraneoplastic causes. Concomitant use of multiple treatments was associated with an increased likelihood of hypocalcaemia. Age, serum calcium level on admission and paraneoplastic causes were associated with shorter survival, in contrast to hypercalcaemia correction.

	RR	95% CI	p
Age	0.95	0.92-0.98	.001
Paraneoplastic cause	0.23	0.08-0.64	.005
Biphosphonate use	2.84	1.34-6.1	.007

#EV0492 Table 1.

	RR	95% CI	p
Age	1.02	1.01-1.04	.004
Serum calcium level on admission (mg/dl)	1.12	1.02-1.22	.014
Paraneoplastic cause	11.8	6.2-22.6	.000
Hypercalcaemia correction	0.34	0.24-0.5	.000

#EV0492 Table 2.

439 / #EV0493

PREVALENCE OF WATER AND ELECTROLYTE DISORDERS AMONG HOSPITALISED ADULT PATIENTS IN SPAIN (2016-2019)

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Background and Aims: The aim of this study was to estimate the prevalence of hydroelectrolytic disturbances among hospitalised adult patients in Spain over a four-year period.
Methods: Data were extracted from the Specialised Care Activity Register (RAE-CMBD), provided by the Ministry of Health. Patients over 14 years of age discharged from the Spanish National Health System between 2016 and 2019 were included. The following diagnoses were selected using the International Classification of Diseases 10th Revision (ICD-10): hyponatraemia (E87.1), hypernatraemia (E87.0), hypokalaemia (E87.6), hyperkalaemia (E87.5), hypocalcaemia (E83.51), hypercalcaemia (E83.52), hypomagnesaemia (E83.42), hypermagnesaemia (E83.41), disorders of phosphorus metabolism and phosphatases (E83.3), other disorders of electrolyte and fluid balance (including chloride) (E87.8).
Results: A total of 16,629,493 discharge reports were reviewed. The pooled prevalences over the four-year period are shown in Table 1.
The annual prevalence of all disorders showed an upward trend.
Conclusions: Sodium (water) and potassium disorders were the most frequent hydroelectrolytic derangements among hospitalised adult patients, followed far behind by calcium, magnesium and phosphorus disorders. Hyponatraemia was the most common condition. The upward trend in annual prevalences probably reflects an increase in coding of diagnoses over the years, and suggests that these disorders are often overlooked or under-diagnosed.

 DOI: 10.12890/2022_V9Sup1

	Pooled prevalence	Range
Hyponatraemia	1.16%	1.1-1.21
Hypokalaemia	0.75%	0.67-0.84
Hyperkalaemia	0.65%	0.59-0.7
Hypernatraemia	0.49%	0.41-0.54
Hypocalcaemia	0.22%	0.19-0.26
Hypercalcaemia	0.16%	0.14-0.17
Hypomagnesaemia	0.13%	0.09-0.18
Phosphorus disorders	0.07%	0.05-0.09
Hypermagnesaemia	0.01%	
Other disorders	0.03%	

#EV0493 Table 1.

724 / #EV0494

INSIDIOUS SYMPTOMS IN SECONDARY ADRENAL INSUFFICIENCY

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Case Description: The author's present a case of Isolated ACTH deficiency, a rare and life-threatening disease, characterized by a wide range of signs/symptoms that evolve in an insidious matter throughtout months, making it a difficult diagnosis, delayed and an extensive differential diagnosis. 58 years, male, seeks the emergency department due to complaints of recent onset dizziness (for the last week), intermitent fever since 1 month, anorexia, occasional vomit, 10 kg weight loss over the last 6 months and had to stop taking his antihypertensive medication 2 months prior due to symptomatic hypotension. On admission: fever (38.8 ºC), hypotension (84/50 mmHg). Malnourished and asthenic. Blood analysis: normocytic normochromic anemia, normal white cells count, hypoglicemia and hyponatremia.
Clinical Hypothesis: Infectious diseases, hidden neoplasm and autoimmune diseases were excluded.
Diagnostic Pathways: X-ray was unremarkable, urine and blood cultures sterile. Thorax CT revealed a pulmonary nodule in the left pulmonary apex (9 mm wide), unspecific nature as well as paratracheal adenopathies. Brain CT revealed a right lateral deviation of the pituitary stalk. Brain MR was unremarkable (deviation of the pituitary stalk was due to sella turcica's anatomy). Hormone levels: cortisol 0.0 µg/dL and ACTH <5.0 pg/mL.
Discussion and Learning Points: IAD is characterized by secondary adrenal insufficiency, with abnormal secretion of only ACTH, low cortisol levels and without structural pituitary defects. As for the possible aetiology, the author's question if it could be a paraneoplasic syndrome (suspicious lung nodule and adenopathies) since there is no history of head trauma, no craniopharyngoma and autoimmune screening negative (some case report's associate autoimmunity to be the major cause behind IAD).

2370 / #EV0495

PROXIMAL RENAL TUBULAR ACIDOSIS AS AN ADVERSE EFFECT OF TOPIRAMATE

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Case Description: 51-year-old female, autonomous for activities of daily living. She had a personal history of neurotic depression, migraine, hypothyroidism and dyslipidemia. Usually medicated with levothyroxine 0.05 mg twice daily, venlafaxine 225 mg once daily, quetiapine 100 mg once daily and topiramate 100 mg three times a day. She went to the emergency department for a sensation of dyspnea after a family conflict. She denied fever, other respiratory, gastrointestinal and genitourinary complaints.
Clinical Hypothesis: Increased acid generation, loss of bicarbonate or diminished renal acid excretion.
Diagnostic Pathways: In the study performed in emergency department, there was no evidence of respiratory failure and sensation of dyspnea improved with symptomatic measures. However, arterial blood gas analysis highlighted the presence of metabolic acidemia pH (7.29), pCO2 (30 mmHg), pO2 (85.0 mmHg), HCO3 (21 mmol/L), anionic GAP of 11 mmol/L, BE – 5 mml/L, Cl-117 mmol/L. The remaining study carried out showed normal renal function, normal values of glucose, ionogram, liver panel and coagulation. Renal ultrasound showed normal-sized kidneys. Type 2 urine had no significant changes, with normal urinary pH (5.0), normal urinary phosphorus and calcium. Protein electrophoresis was normal. At the Internal Medicine reassessment visit, approximately 2 weeks after discontinuation topiramate, the patient was completely asymptomatic and the blood gas analysis was completely normal (pH 7.38; HCO3- 26.6 mmol/L).
Discussion and Learning Points: This clinical case allows us to remember the importance of the possibility of drug iatrogenesis as a cause of several disorders.

 DOI: 10.12890/2022_V9Sup1

1673 / #EV0496

MANAGING THE DIABETIC PATIENT DURING HOSPITALIZATION

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Background and Aims: Diabetes mellitus is a metabolic disorder which, if unchecked, can have severe micro and macrovascular consequences. Glucose levels in hospitalized diabetic patients should be monitored and antidiabetic therapy optimized before discharging them. This 6-month study focuses on hospitalized diabetic patients and the consequences of mismanagement of glucose levels.
Methods: A retrospective cohort study between July and December of 2020 including hospitalized patients diagnosed with type 2 diabetes mellitus (T2DM) in an Internal Medicine Department.
Results: 174 patients (62.6% male and 37.4% female; mean age of 83.4 years) were hospitalized and all had known medical history of T2DM with a mean value of glycated hemoglobin (HbA1c) of 7.7%. During hospitalization only 23.5% (n=41) had optimized long acting insulin therapy according to regular glucose levels monitoring. The remaining 76.5% (n=133) only had short acting insulin therapy according to peak glucose levels. In fact, only the patients with long acting insulin therapy were discharged with optimized antidiabetic therapy while the rest were discharged with the same dosages previous to the hospitalization. When comparing the mean value of HbA1c of these patients 3 months later there was a significant increase to 9.1%.
Conclusions: Hospitalized diabetic patients should have their glucose levels monitored and insulin therapy optimized regardless of the motive of hospitalization. When discharging these patients they must be reevaluated in short-term period to tailor their antidiabetic therapy in order to prevent worsening of their metabolic profile and increased risk of micro and macrovascular consequences inherent to T2DM.

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REDEFINING DIABETES CLASSIFICATION IN A PATIENT MISDIAGNOSIS WITH TYPE 2 DIABETES

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Case Description: A 67-year-old man with metabolic syndrome and a 12-year history of type 2 diabetes mellitus (T2DM) with good metabolic control on oral agents was admitted to the hospital due to polyuria, polydipsia, polyphagia and hyperglycemia. Lab tests showed a significant increase in A1C level (11.2%) in comparison to results from 8 months earlier (6.1%). The patient was started on multiple-insulin regimen in order to control his glycemic profile.
Clinical Hypothesis: Considering this metabolic decompensation and the need of intensive insulin therapy, additional workup was performed to identify the decompensation causes. Therapeutic non-compliance, exocrine pancreas disease, thyroid disease, other endocrinopathies and acute illness were excluded.
Diagnostic Pathways: Since decompensation causes were not identified, the T2DM diagnosis was reevaluated: lab tests revealed normal C-peptide level, but GADA positivity, leading to Latent Autoimmune Diabetes of Adults (LADA) diagnosis.
Discussion and Learning Points: This case illustrates a patient with phenotypic features of T2DM who suffered a marked deterioration of his metabolic profile with insulin requirement within a short period of time. Diabetes includes a variety of metabolic disturbances characterized by hyperglycemia. It is important to establish the subtype of diabetes in order to define an individualized therapeutic strategy and follow up. LADA is an underdiagnosed subtype of diabetes that shares characteristics of both type 1 (T1DM) and type 2 diabetes: at the time of diagnosis, it is frequently misdiagnosed as T2DM, but these individuals show a faster evolution to insulin deficit. Hereby, we emphasize the importance of revisiting diabetes subtype diagnosis throughout disease evolution, abandoning the dichotomization into T1DM and T2DM.

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HYPONATREMIA AS AN OPPORTUNITY TO DIAGNOSE A MONOCLONAL GAMMOPATHY

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Case Description: A 89-year-old man was admitted to the hospital due to altered neurological status with confusion and worsening of functional status for two weeks. At admission he had irregular pulse and confused speech with disorientation. Workup revealed atrial flutter and hyponatremia (125mEq/L). Besides being euvolemic, he was initially started on isotonic IV fluids, without improvement of sodium levels. Brain CT excluded acute vascular event and intracranial masses or edema.
Clinical Hypothesis: Lab tests including serum and urinary sodium and osmolality, together with euvolemic status and exclusion of primary polydipsia, adrenal, thyroid, and pituitary disturbances, were consistent with Syndrome of Inappropriate Antidiuretic Hormone Secretion (SIADH) diagnosis. Fluid restriction was started with improvement of natremia, further strengthening this hypothesis. Chest and head CT did not show space-occupying lesions. There were no causative medications since the patient was only on aspirin.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: During hospitalization he became persistently bradycardic with mild peripheral edema. NTproBNP was 8781pg/mL. ECG revealed atrial flutter with slow ventricular response and low QRS voltage. These findings raised cardiac amyloidosis suspicion. The serum protein electrophoresis and immunofixation identified IgG kappa monoclonal gammopathy, which was assumed to be the cause of SIADH.
Discussion and Learning Points: Hyponatremia is a common finding in the hospital setting. Determining its aetiology is crucial in terms of treatment and because it can be a sign of an underlying disease, including malignancy. Hereby we present a case of SIADH as first clinical manifestation of a monoclonal gammopathy that highlights the importance of an extensive workout and perspicacity in order to identify rare aetiologies of hyponatremia.

1972 / #EV0499

DIABETIC KETOACIDOSIS EVENT PREDICTS WORSE PROGNOSIS IN PATIENTS WITH DIABETES TYPE 1 AND TYPE 2

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Background and Aims: Diabetic ketoacidosis (DKA) is an acute life-threatening complication of diabetes mellitus (DM) more common in type 1 (T1DM) then in type 2 (T2DM) diabetes. We have assessed the hypothesis that the DKA is associated with DM related complications later in life.
Methods: We assessed all patients with T1DM and T2DM diagnosed between 2005 and 2020 in Southern Israel (population of 750,000). The DKA events as the presenting symptom of the DM were excluded from the analysis. The primary outcome was a composite of DM related complications: retinopathy, nephropathy, neuropathy and cardiovascular morbidity.
Results: This cohort comprised 80,873 patients, 78,985 patients with DM2 (mean age 65 at the diagnosis, 49.6% male) and 1,888(2.33% of the cohort) patients with T1DM (mean age 37, 50.1% male). In the T2DM group there were 2,413(3.1%) cases of DKA compared to 231(12.2%) cases in the T1DM group. Patients with DKA had higher incidence of DM complications in both groups, in T2DM group 89.60% vs 57.44% (odds ratio 1.56), in T1DM group 71.43% vs 57.94% (odds ratio 1.26), p<0.001 for both.
Conclusions: These data support the hypothesis that DKA is negatively associated long-term complications in patients with type 2 and type 1 diabetes mellitus.

1720 / #EV0500

ASSOCIATION BETWEEN A VARIANT IN KCNJ11 GENE AND THERAPEUTIC RESPONSE TO VILDAGLIPTIN IN PATIENTS WITH NEWLY DIAGNOSED TYPE 2 DIABETES MELLITUS

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Background and Aims: Large studies have been able to prove that the single nucleotide polymorphism rs5219 of the KCNJ11 gene is more frequent in type 2 diabetes mellitus (T2DM) and in subjects with decreased insulin secretion. Given that DPP-4 inhibitors act on pancreatic β-cells, which play a role in T2DM, we examined the association of KCNJ11 rs5219 (C>T) variant with the response to vildagliptin. So, the aim was to investigate a role of the rs5219 polymorphism in the individual glycemic response to vildagliptin in patients with newly diagnosed T2DM.
Methods: We examined 48 patients with newly diagnosed T2DM. For all patients vildagliptin in a dose of 50 mg/day was prescribed. If necessary, dose titration was carried out or other glucose-lowering therapy was prescribed for 3 months of observation. Dynamics of the main indicators of glycemic control were studied, presence of the rs5219 polymorphism was also determined.
Results: Minor allele T frequency was 0.39. All carriers of the risk allele T had achieved the target hemoglobin A1c (HbA1c) within 3 months of vildagliptin monotherapy, compared to CC homozygous patients who achieved target HbA1c in only 44.4% of cases. Increasing the dose to 100 mg/day required 35% of patients with wild-type gene and 17.9% of polymorphic allele carriers. The appointment of a combination of glucose-lowering therapy was necessary in 40% of patients with the wild-type gene and no one with polymorphism (p<0.001).
Conclusions: The presence of the KCNJ11 rs5219 polymorphism makes it possible to predict the high efficacy of vildagliptin monotherapy in patients with newly diagnosed T2DM.

992 / #EV0501

CORRELATION OF LPA , VITAMIN D AND HBA1C LEVELS IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Background and Aims: Lipoprotein(a) is a potent risk factor for atherosclerotic disease, correlated to an increased probability of T2 diabetes mellitus. 25-(OH)-D3 is a fat-soluble vitamin with a significant role in many metabolic pathways. Aims Correlation of

 DOI: 10.12890/2022_V9Sup1

Lpa and Vitamin 25-(OH)-D3 levels with HbA1c in patients with T2DM under treatment (insulin or tablets).
Methods: The study included 108 participants, 51 males(47.2%) and 57 females(52.7%) diabetic patients under treatment, with a mean age of 78.2 years. Patients were divided according to HbA1c in two groups. Total cholesterol, triglycerides, HDL, LDL, Lpa and HbA1c were measured at 3, 9 and 12 months.
Results: Results Group A values: Lpa= 25.92±1.98 mg/dl (month 3), 24.33 ± 1.87 (month 9), 24.07 ±1.87 (month 12). HbA1c = 6.96% ±0.1 (3rd month), 6.65% ±0.1 (9th month), 6.37 ± 0.09 (12th month). Vitamin 25-(OH)-D3 25-30, 26-30 and 28-30 respectively. Group B values: Lpa = 27.69±1.95 (month 3), 24.46 ± 1.68 (month 9), 22.16 ± 1.4 (month 12). HbA1c=8.44% ± 0.19 (3rd month), 8.07%±0.2 (9th month), 7.81%±0.2 (12th month). 14<Vitamin 25-(OH)-D3 14-20, 18-22 and 24-30 respectively.
Conclusions: There appears to be an association of high Lpa levels and elevated HbA1c values in patients with T2DM. In addition, vit.25-(OH)-D3 and HbA1c are correlated. Diabetic patients with higher HbA1c have a greater deficiency of vit.25-(OH)-D3. No correlation between vit.25-(OH)-D3 and rest of the lipid profile were found. Successful regulation of antidiabetic treatment and improvement of HbA1c was related to a statistically significant reduction of Lp(a). Further studies are needed to confirm results and to clarify the pathological mechanisms.

1827 / #EV0502

IMMUNOTHERAPY INDUCED HYPOTHYROIDISM

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Case Description: A 70 year-old female presented with tiredness, lassitude, anorexia and cold intolerance. She had a past medical history of active stage IV pulmonary adenocarcinoma, pulmonary embolism and depression. Symptoms started after the eighth cycle of pembrolizumab. Physical examination was unremarkable.
Clinical Hypothesis: Immune-related adverse events (irAEs), including endocrinopathies, are a well-documented side effect of immunotherapy, such as immune checkpoint inhibitors (ICIs), used in advanced malignancies. Chronic lymphocytic thyroiditis is one of the most common irAE.
Diagnostic Pathways: Primary hypothyroidism was evident from the laboratory tests: markedly elevated TSH (169mU/L; reference range 0.4-4.12mU/L) and low free T4 (<0.02ng/dL; reference range 0.7-1.8ng/dL). Therapy with levothyroxine was initiated and titrated, until normalization of thyroid function. Thyroid ultrasound suggested chronic lymphocytic thyroiditis despite the low anti-thyroperoxidase and anti-thyroglobulin antibody titers.
Discussion and Learning Points: Whilst the advent of ICIs has improved the prognosis of patients with advanced malignancies, they have also been associated with several irAEs. Thyroid irAEs in patients treated with programmed death receptor-1-inhibitors have been reported as one of their most common adverse effects.1 The symptoms of thyroid dysfunction may be mistaken by those of the malignancy itself, disregarding potentially reversible causes for the symptoms. As such, a high level of suspicion is warranted in order to improve patient care and outcomes.

Delivanis DA, et al. Pembrolizumab-Induced Thyroiditis: Comprehensive Clinical Review and Insights Into Underlying Involved Mechanisms.J Clin Endocrinol Metab .2017;102(8):2770-2780.

1293 / #EV0503

SEVERE SYMPTOMATIC HYPONATREMIA AS A MANIFESTATION OF ADDISON'S DISEASE

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Case Description: A 28-year-old man, previously healthy, presented with nausea, vomiting, epigastric discomfort, anorexia, fatigue and weight loss. On examination stood out skin hyperpigmentation involving palmar creases. Initial blood tests revealed hyposmolar hyponatremia (107 mmol/L; 240 mOsmoL/Kg).
Clinical Hypothesis: Severe symptomatic hyposmolar hyponatremia and skin hyperpigmentation due to Addison's disease (AD).
Diagnostic Pathways: The patient was admitted to the Internal Medicine ward, where further investigation showed elevated basal ACTH levels (> 2000 pg/mL), low cortisol (3.1 µg/dL), high serum renine (> 1000 µUI/mL) and low serum aldosterone (<5pg/mL), confirming the diagnosis of AD. Intravenous dextrose and hydrocortisone were started, with full symptomatic recovery and normalization of natremia. Abdominal-pelvic CT scan ruled out hemorrhagic, infiltrative, tumoral/metastatic and infectious involvement of the adrenals. The measurement of serum 21-hydroxylase antibodies was negative, as well as auto-immune study. No drugs history. Abdominal MRI demonstrated adrenal atrophy and head MRI revealed lesions of demyelinating etiology. Adrenoleukodystrophy was admitted as an etiologic hypothesis - levels of very-long-chain fatty acids were requested; the patient didn't have neurological symptoms. He also had polycythemia (17.5 g/dL), hyperferritinemia (514 ng/mL) and elevated transferrin saturation (45%), which led to the hypothesis of hereditary hemochromatosis, confirmed by genetic test (homozygous for H63D mutation). Abdominal MRI excluded significant deposits, including in the adrenals, as a possible etiology of AD.
Discussion and Learning Points: The presented case corresponds to a probable agudization of a chronic adrenal insufficiency presented as a severe symptomatic hyponatremia. AD is a medical emergency so it's essencial to suspect it and initiate therapy immediately, for a favorable prognosis.

 DOI: 10.12890/2022_V9Sup1

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IS STATIN THERAPY JUSTIFIED IN THE ELDERLY POPULATION GROUP?

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Background and Aims: To know the characteristics of the elderly population in treatment with statins, side effects and control objectives achieved in the province of Huelva.

Methods: Retrospective observational study of patients from the Huelva Health Area, over 75 years of age treated with statins. From the registry of patients treated with any statin in the years 2015 and 2016, patients over 75 years of age were selected. It has been stratified by age in 4 groups of 5 in 5 years. Based on these 8 strata, 2% of patients from each stratum have been randomly selected.

Results: Of 14,472 people over 75 years of age on statin therapy, 226 patients were selected.The mean age was 81 years, 52% women. Hypertension in 87%, DM2 in 43.8%, and hypercholesterolemia in 74.1%. The presence of cardiovascular events (ischemic heart disease, stroke, peripheral arterial disease or chronic kidney disease) was present in 50.3% of patients, compared to 49.6% of patients in primary prevention.The use of high-potency statins in primary prevention was 21% and in secondary prevention 55%. The median CPK was 76 and ALT 14 U/L.

Conclusions: 1. The use of statins in primary prevention in the very elderly patient in our areais 49.6%. Very high percentage considering that it is an indication for which there is no evidence of use in this age group. 2. The use of high-potency statins in secondary prevention is only 55%. 3. A low percentage of liver or muscle toxicity from statins has been detected in this population group.

523 / #EV0505

REVIEW OF STATIN TREATMENT IN ELDERLY POPULATION AT 5 YEARS SIGHT

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Background and Aims: To know the evolution of the elderly population treated with statins after five years, in the province of Huelva.

Methods: From the cohort of patients from the Huelva Health Area with more than 75 years in treatment with statins selected in 2015 and 2016 with 226 patients, total mortality and cardiovascular cause have been assessed, admission in this 5 years for any cause and cardiovascular cause, maintenance of treatment with statins, lipid profile and liver and muscle toxicity.

Results: Of the 226 patients selected, 50% were in primary prevention and of them there were no deaths, and only 2 admissions, one of them due to cardiovascular disease. In secondary prevention there were 46 deaths, 21% of which 11 (37.9%) were due to cardiovascular causes. There were 73 admissions (34.4%) of which 14 (19.2%) were due to cardiovascular causes. The use of low-potency statins was similar in both groups, in primary p 71% and in secondary p 61.6%. ALT was altered in 23.7% of patients at baseline and 18.8% at 5 years. CpK was altered by 12%.

Conclusions: 1. Mortality at 5 years in patients in secondary prevention was 21% and admission was 37%.

2. The use of high-potency statins in secondary prevention was 38%.

3. A low percentage of liver or muscle toxicity by statins has been detected in this population group.

695 / #EV0506

RELATIONSHIP BETWEEN MALNUTRITION AND SARCOPENIA BY DIFFERENT SCORES IN INTERNAL MEDICINE INPATIENT

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Background and Aims: Main objective: to estimate the prevalence of malnutrition and sarcopenia. Second objective: to study the correlationship between the SARC-F questionarie and grip strength for sarcopenia.

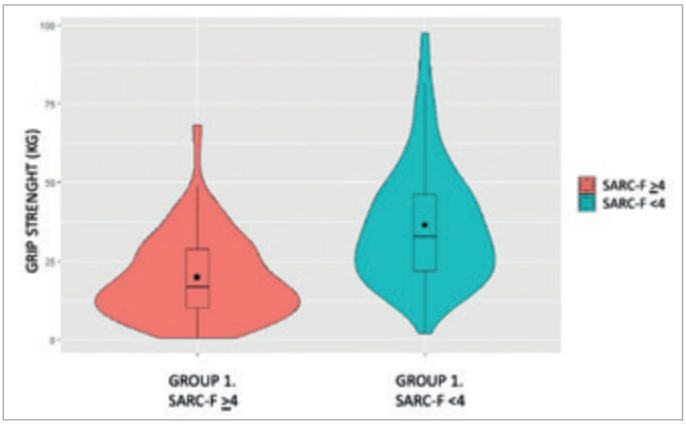
Methods: Observational study (1/05/2021-31/05/2021). Patients: we successively included patients (>18 years) admitted to internal medicine wards. Variables: Baseline variables were obtained in the first 48h. We used MNA-SF questionnaire for malnutrition, SARC-F questionnaire (>4, <4 high/low risk) and Grip strength (Jamarr Plus+ Dynamometer) for sarcopenia according EWGSOP (European Working Group on Sarcopenia in Older People) recommendations by BMI. Patients were stratified into three groups according to MNA-SF scores (0-7 undernutrition, 7-11 high risk, 12-14 normal). Qualitative variables were compared using the chi-square test and Quantitative with Kruskal-Wallis. We considered a p value <0.05 as significant. The software package used was R (R proyect for statistical computing).

Results: We included 340 patients, 52.1% female, mean age 75.8(14.6) year. 59.7% and 23.5% were on high risk or malnutrition respectively, according to MNA-SF; 48.2% at high risk of sarcopenia according to SARC-F and 47.1% by grip strength. The remaining parameters are shown in Table 1. Table 2 and Figure 1 shows the relationship between SARC-F and Dynamometry. The 27.1% of patients being sarcopenic, were included as low risk by SARC-F. The Figure 2 displays the regression analysis of SARC-F and grip strength.

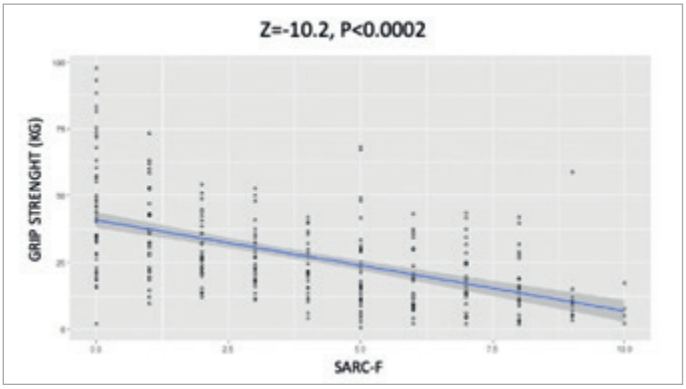
Conclusions: Sarcopenia is highly prevalent in malnourished

 DOI: 10.12890/2022_V9Sup1

patients. Grip Strength is more precise than SARC-F for sarcopenia detection with good correlation between both.



#EV0506 Figure 1: Distribution of Dynamometry values by SARC-F score.



#EV0506 Figure 2: Dynamometry by SARC-F score.

Parameter	Group 1 MNA-SF 12-14	Group 2 MNA-SF 8-11	Group 3 MNA-SF 0-7	P
N	57	203	80	
Age (years)	73 (14)	80 (14)	81 (15)	0.003
Body Weight (kg)	76.9 (17.3)	66 (21.5)	55 (15.9)	<0.00
BMI (Kg/m²)	26.8 (6.25)	25.6 (7)	20.8 (7.64)	<0.00
Arm Circumference (cm)	30 (5)	27 (4)	24 (5.6)	<0.00
SARC-F				
≥4	7 (12.3)	93 (45.8)	64 (80)	0.000
<4	50 (87.7)	110 (54.2)	16 (20)	0.000
Dynamometry (kg)				
Mean	29.2 (24.7)	23.9 (20.9)	15.6 (19)	0.00
CV	0.2 (0.2)	0.2 (0.2)	0.2 (0.4)	0.4
SD	7 (7)	5 (4)	4 (5)	0.0007
HBP	48 (84.2)	155 (76.3)	54 (67.3)	0.07
T2DM	23 (40.3)	87 (42.8)	35 (43.3)	0.92
Dyslipidemia	32 (56.1)	112 (55.2)	39 (48.7)	0.57
Ethylism	12 (21)	22 (10.8)	3 (3.8)	0.005
Smoker	14 (24.6)	31 (15.3)	12 (15)	0.22
Liver diseases	3 (5.3)	9 (4.4)	11 (13.7)	0.001
Heart failure	19 (33.7)	70 (34.5)	18 (22.5)	0.14
Cardiovascular Diseases	28 (49.1)	70 (34.5)	27 (33.7)	0.1
COPD	8 (14)	47 (23.1)	20 (25)	0.26
Chronic Kidney disease	16 (28.1)	48 (23.6)	21 (26.2)	0.75
Cancer (solid)	10 (12.5)	45 (22.2)	17 (21.2)	0.75
Hematological cancer	3 (5.3)	7 (3.4)	3 (3.7)	0.45
Charlson Index	5 (4.5)	6 (3)	6 (3.5)	0.01
Intrahospitalary mortality	6 (10.5)	21 (10.3)	14 (17.5)	0.23
Totals proteins (g/dl)	6.6 (1.1)	6.3 (1.1)	5.9 (1.3)	0.0004
Albumin (g/dl)	3.9 (0.7)	3.6 (0.7)	3.2 (1)	0.00
Total Lymphocytes (mil/mm³)	1.3 (0.9)	1.4 (1.1)	1.1 (1)	0.02
Hemoglobin (g/dl)	12.3 (3.2)	11.7 (3.2)	11.2 (3.1)	0.01

BMI: body mass index; COPD: chronic obstructive pulmonary disease; CV: coefficient of variation; HBP: High blood pressure; SD: standard deviation; T2DM: type 2 diabetes mellitus.

#EV0506 Table 1: Clinical, anthropometric and analytics variables according to MNA-SF groups

Parameter	SARC-F <4	SARC-F ≥4	p
N = 291 Patients	151	140	
Grip Strength (kg)			
	36.4 (24.5)	19.7 (18.8)	0.00001
Mean	0.54 (0.1)	0.28 (0.3)	0.008
CV	7.5 (5.8)	5.2 (4)	0.00001
SD			
Sarcopenia by Grip Strength	38 (27.1%)	99 (65.6%)	0.00001

CV: variation coefficient; SD: standard deviation

#EV0506 Table 2: Relationship between SARC-F values and Sarcopenia by Dynamometry Score.

952 / #EV0507

GLUCAGON-LIKE PEPTIDE-1 RECEPTOR AGONISTS: REAL-WORLD EFFICACY DATA IN PATIENTS WITH TYPE 2 DIABETES

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Background and Aims: GLP-1 receptor agonists (GLP1RA) are potent glucose lowering drugs with additional anti-atherosclerotic effects. Some differences in efficacy have been suggested between individual GLP1RA by comparing different clinical trials, but patient selection in clinical routine may vary considerably. We therefore aimed to characterize patients who were prescribed GLP1RA and outline potential differences in their apparent efficacy in a real-world setting.

Methods: Patients with type 2 diabetes starting GLP1RA therapy (dulaglutide, exenatide, liraglutide) between January 2014 and September 2020 in a diabetes outpatient clinic in Vienna were studied retrospectively over a 12-month follow-up. Multiple inclusions were allowed after a 90-day washout period.

Results: A total of 589 data sets from 552 patients were included in the analysis, mean age was 60.6±11.5 years (mean ± SD), 44.1% female. Mean diabetes duration was 13.1±8.8 years, patients had on average 2.4 concomitant antidiabetic therapies, 50.2% were on insulin therapy. Mean HbA1c was 8.8±1.7%, average weight was 106.1±20.7 kg and BMI 34.1±5.9 kg/m². After 12 months of follow-up mean weight reductions were -4.3±4.2 kg, -6.3±6.4 kg and -5.6±5.8 kg for dulaglutide, exenatide and liraglutide, respectively, with no significant differences between drugs (p=0.18). Patients on exenatide had a significantly higher HbA1c reduction compared to liraglutide after 12 months, absolute numbers of exenatide users, however, were low. Discontinuation rate regardless of reasons was 38%.

DOI: 10.12890/2022_V9Sup1

Conclusions: In this real-world setting GLP1RA are being prescribed rather late in the disease course. All investigated drugs were comparable regarding their efficacy in weight reduction after 12 months with a more pronounced HbA1c reduction by exenatide.

83 / #EV0508

GLYCEMIC DISORDER RISK REMOTE MONITORING PROGRAM IN THE COVID-19 VERY ELDERLY PATIENTS

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Background and Aims: The coronavirus disease 2019 (COVID-19) pandemic has necessitated the use of new technologies and new processes to care for hospitalized patients, including diabetes patients. This was the basis for the "GER-e-TEC COVID study," an experiment involving the use of the smart MyPredi™ e-platform to automatically detect the exacerbation of glycemic disorder risk in COVID-19 older diabetic patients.

Methods: The MyPredi™ platform is connected to a medical analysis system that receives physiological data from medical sensors in real time and analyzes this data to generate alerts. An experiment was conducted between December 14th, 2020 and February 25th, 2021 to test this alert system, and used on COVID-19 patients being monitored in an internal medicine COVID-19 unit at the University Hospital of Strasbourg.

Results: 10 older diabetic COVID-19 patients in total were monitored remotely, 6 of whom were male. The mean age of the patients was 84.1 years. The patients used the telemedicine solution for an average of 14.5 days. 142 alerts were emitted for the "hyperglycemia" risk, with an average of 20.3 alerts per patient and a standard deviation of 26.6. No alerts were emitted for the "hypoglycemia" risk. In terms of sensitivity, the results were 100% for diabetes risks, and extremely satisfactory in terms of positive and negative predictive values. In terms of survival analysis, the number of alerts and gender played no role in the length of the hospital stay, regardless of the reason for the hospitalization (COVID-19 management).

Conclusions: This work is part of a larger work: GER-e-TEC COVID project.

617 / #EV1318

LIFESTYLE MODIFICATION IMPACT ON DNA METHYLATION MARKERS ASSOCIATED TO OBESITY IN AN ELDERLY METABOLICALLY HEALTHY OBESE POPULATION

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Background and Aims: Epigenetic modification controls gene expression. Our aim was to analyze the impact of lifestyle modification through adherence to a Mediterranean diet (MedDiet) and physical activity (PA) on DNA methylation of lipid genes in an elderly metabolically healthy population with obesity (MHOe).

Methods: 153 MHOe participants, followed a 12-month lifestyle intervention, with advice from a nutritionist on the MedDiet pattern and a caloric intake of 1500-1750 Kcal/day, as well as adapted PA. Weight, BMI, BP were analyzed and blood samples were collected. Protocol approved by Malaga Provincial Research Ethics Committee. All participants gave their written consent. DNA Methylation of six genes were obtained by using Pyromark Q96 ID and analyzed by the SPSS statistical program.

Results: RESULTS 109 young-old (age: 69.26±2.83 years, BMI: 32.0±3.85 kg/m^2) and 49 old-old (age: 78.06±2.88 years, BMI: 30.67±3.64 kg/m^2), after 12 months of lifestyle modification were not able to reduce significantly their BMI and body weight due to the SARS-Cov-2 pandemic lockdown. However, the reduced fat, sugar and energy intake in the diet and an increment in PA, it was enough to improve the response of RXR, Sterols response element binding protein and leptin genes associated to obesity.

Conclusions: Lifestyle modification through adherence to a MedDiet and adapted PA can significantly reduce the DNA methylation values of some genes such as alpha-retinoid X receptor, Sterols response element binding protein and leptin related to obesity even in MHOe subjects. The epigenetic study is extremely important in the prevention of obesity and cardiometabolic disorders.

DOI: 10.12890/2022_V9Sup1

AS07. GASTROINTESTINAL AND LIVER DISEASES

2069 / #EV0509

AUTOIMMUNE HEPATITIS: NOT ALL ADENOPATHIES ARE CANCER

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Case Description: A 51-year-old male patient with history of obesity, hypertension and important alcohol consumption,was referred to an internal medicine appointment. No relevant family history was retrieved. The patient complained of abdominal discomfort and asthenia within the previous six months. He denied anorexia, nausea, loss of weight and jaundice. On physical examination skin changes suggestive of lichen planus were standed out. The thoracic abdominal and pelvic CT scan reported hepatomegaly, hepatic steatosis and adenopathic conglomerates with a pericephalopancreatic and a retroperitoneal topography. A core biopsy of adenopathies was made by echo-endoscopy technique and its histological result was negative for malignant cells, showing inflammatory cells. The analytical study revealed increased liver transaminases (ALT>AST), a positive anti-smooth muscle antibody and iron overload. The diagnosis of type 1 auto-immune hepatitis was made after a histological result from hepatic biopsy showing typical features of this disease. Other inflammatory diseases were excluded as well as other etiologies of chronic liver disease. After immunization for SARs-COV-2, influenza, pneumococcus and exclusion of latent tuberculosis, patient started the treatment.

Clinical Hypothesis: Lymphoproliferative disease, sarcoidosis, chronic liver disease of any cause.

Diagnostic Pathways: The final diagnosis was made by liver biopsy and autoimmune study.

Discussion and Learning Points: Autoimmune hepatitis is a chronic rare liver disease that must be treated in a life-long term to prevent the development of cirrhosis and end-stage liver disease. This case intends to highlight a different form of presentation of autoimmune hepatitis and to alert for the necessity of a high suspicion in order to implement the proper treatment in a timely manner.

1943 / #EV0510

TUMOR-LIKE, ABSCESSED ABDOMINAL MASSES DUE TO STONES SPILLAGE AFTER LAPAROSCOPIC CHOLECYSTECTOMY

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Case Description: A 53-year-old man was admitted to our ward for important weight loss (12 kg in six months) and hyporexia. Six months earlier he underwent a laparoscopic cholecystectomy for acute cholecystitis. At physical examination several palpable abdominal masses. Blood tests showed a mild normocytic anemia (Hb 12.5 g/dL) and a mild rise in inflammatory markers (PCR 3.15 mg/dL).

Clinical Hypothesis: Neoplastic disease; abdominal abscesses.

Diagnostic Pathways: In order to assess the nature of weight loss and anemia, an esophagogastroduodenoscopy and a colonoscopy were required and were unremarkable. As for the abdominal masses, a CT scan showed six hepatic nodulations, a peritoneal thickening compatible with a carcinomatosis area, a para-duodenal mass and two more masses in the oblique muscles context. All of them presented great contrast enhancement in both phases with a late wash out. The Positon-Emission-Tomography (PET) showed radiotracer storages in the masses, as well as in abdominal lymph nodes. All neoplastic markers resulted negatives. Muscular, hepatic and duodenal mass biopsies attempts turned out non diagnostic. A final excisional biopsy of a hepatic nodulation ruled out a neoplastic localization, showing giant cells granulomatous infiltrate as for foreign body reaction associated with biliary deposit. Therefore, a conclusive diagnosis of multiple granulomas due to foreign-body reaction to spilled gall stones was finally made.

Discussion and Learning Points: The incidence of complicated gall stones spillage during cholecystectomy is rare but more common when operating on an acutely inflamed gallbladder, especially in men and obese patients. Inflammatory and infective

 DOI: 10.12890/2022_V9Sup1

complications are more likely to occur with bilirubin stones, since often containing viable bacteria.

863 / #EV0511

VON MEYENBURG COMPLEX, A BENIGN LIVER MASS DIFFERENTIAL DIAGNOSIS?

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Case Description: A 56-year-old woman presents itself in the ER with lumbar trauma due to a slip and fall accident with cooking oil. She had a previous right knee surgery and dyslipidemia. Upon orthopedic observation she was clinically stable and the only physical examination finding was moderate lumbar pain.
Clinical Hypothesis: This being a seemingly simple trauma, the main hypothesis was bone fracture.
Diagnostic Pathways: Analytics were unremarkable. A lumbar CT scan was request for fracture exclusion. The exam revealed a chronic T11 fracture and multiple, and various sizes hypotransparent nodes, the biggest with 8.3x5.6 cm, in an homogenous and normal sized liver. This patient had no risk factors for hepatic disease, no toxic habits, IV drugs or new medication, no liver disease stigmata and no consuption disease signs.
Discussion and Learning Points: This being a stable patient and non-acute disease case, the patient was discharge with follow-up by an internal medicine physician. The follow up was in a 6 month period, were the patient was assymptomatic and normal hepatic screening exams. Von Meyemburg complex is a rare entity that should be considered when investigating liver focal lesions, given the lack of avalilable information and the higher than normal risk of progression to malignancy it was decided clinical surveillance in ambylatory.

1823 / #EV0512

CAPECITABINE-INDUCED TERMINAL ILEITIS: A CASE REPORT

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Case Description:
A 70-year-old male had a past medical history of pT3N2M1 ascending colon adenocarcinoma previously submitted to laparoscopic right hemicolectomy and currently under palliative chemotherapy with capecitabine/irinotecan. He presented to the hospital with watery non-bloodyor mucus diarrhea (grade 2), associated with nausea, vomiting, abdominal pain and fever for one week (one day after the 15th chemotherapy cycle). There no relevant epidemiological background, recent laxative, antibiotic or ARA´s therapy. On physical examination, he was febrile with painful inferior right abdominal quadrant deep palpation. Blood analysis showed pancytopenia, hypokalaemia, and mildly elevated inflammatory markers.
Clinical Hypothesis: Febrile pancytopenia due to acute bacterial gastroenteritis was admitted and the patient started antibiotic therapy.
Diagnostic Pathways: The patient got afebrile with normalized inflammatory markers. Nevertheless, he maintained diarrhea. Viral serologies, VDRL, blood and urinary cultures were negative, as well autoimmune study. Stool bacterial, viral and parasitological testing was negative. A thoraco-abdomino-pelvic CT was performed with no significant findings. The colonoscopy showed superficial distal ileal ulcers sized 7 to 15 mm surrounded by normal mucosa. Distal ileal biopsies exhibited eosinophilic infiltration compatible to drug-induced severe chronic ileitis (granulomas or parasites were not observed). Capecitabine was interrupted and the patient presented improvement of diarrhea.
Discussion and Learning Points: Capecitabine-induced diarrhea secondary to ileitis is a severe adverse effect, which occurs during chemotherapy. Key management principles include early recognition and immediate cessation of capecitabine and supportive treatment. [2] A high index of suspicion is critical as the complications, such as dehydration and the associated electrolyte derangements, may be life-threatening if diagnosis and cause-specific treatment are delayed.

2534 / #EV0513

A CHALLENGING CASE

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Case Description: A 76-year-old woman presented with nausea and vomiting in the last six months. She reported asthenia and the loss of 12kg. She indicates a period of diarrhoea two months before this evaluation, with no fever. The laboratory results revealed anaemia and mild cholestasis.
Clinical Hypothesis: Infection; tumor; coelic disease.
Diagnostic Pathways: Abdominal ultrasound and magnetic resonance cholangiopancreatography revealed bile sludge. The search for evidence of infection was negative, as well as the antibodies for celiac disease. Positron emission tomography had no abnormal uptake. Upper digestive endoscopy with biopsies revealed villous atrophy. Capsule endoscopy showed macroscopic features suggestive of celiac/whipple's disease. Given the gravity of the patient's presentation, antibiotic therapy was initiated immediately as well as a gluten-free diet. Her symptoms improvement was undeniable. Duodenal biopsies were reviewed and whipple's disease was considered unlikely. The genetic analysis found positivity for HLA DR7-DQ2. After one year under a gluten-free diet, there was a clinical and histological improvement.
Discussion and Learning Points: Celiac disease is the result of the

 DOI: 10.12890/2022_V9Sup1

interaction between genetic, autoimmunity and an environmental trigger (gluten). It is more frequently seen in women than in men and it can manifest at all ages. A small number of patients test negative for serological marks, which difficult the diagnose. This case was particularly challenging since nausea/vomiting are associated with a large number of conditions. The diagnosis of seronegative celiac disease is also complex and requires the exclusion of other causes of villous atrophy and histological improvement after one year of treatment. The genetic test has a high negative predictive value.

344 / #EV0514

A RARE CASE OF PROTEIN-LOSING ENTEROPATHY: NSAID-INDUCED DIAPHRAGM-TYPE LESION WITH PROTEIN-LOSING ENTEROPATHY ACCOMPANYING SMALL BOWEL OBSTRUCTION

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Case Description: A 57-year-old male patient presented with complaints of watery diarrhea, swelling in the legs, and weight loss of 15 kg for 1.5 years. The patient had been using various analgesic combinations containing diclofenac/flurbiprofen for 35 years. Laboratory examinations showed a very low level of serum albumin (1.82gr/dl) initially and were replacement resistant.

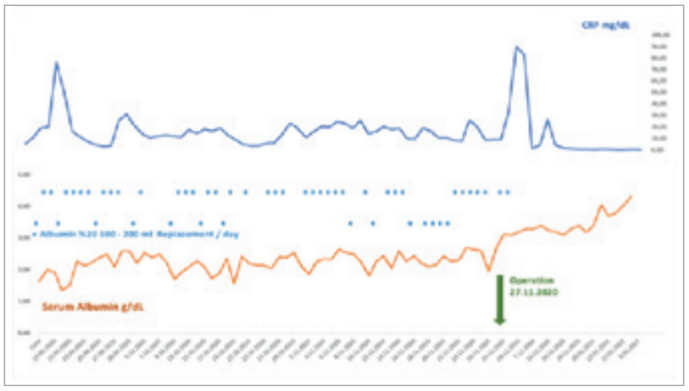
Clinical Hypothesis: Endoscopies were normal. Nano-colloid lymphoscintigraphy resulted in heterogeneous activity in the ileal segments, which was in favor of ileal protein loss. Etiological causes other than Nsai-related protein-losing-enteropathy (PLE) were excluded.

Diagnostic Pathways: Abdominal MRI showed wall thickening and dilatation in a small segment of the pelvic ileal loop. In diagnostic laparoscopy, 17cm ileal segment was resected.Post-op albumin level rose without any further replacement . (Figure 1) 4 diaphragm like anular Ileal ulcers (NSAID-related) were monitored with ileoscopy which healed post.op 6 months spontaneously (Figure 2-3).

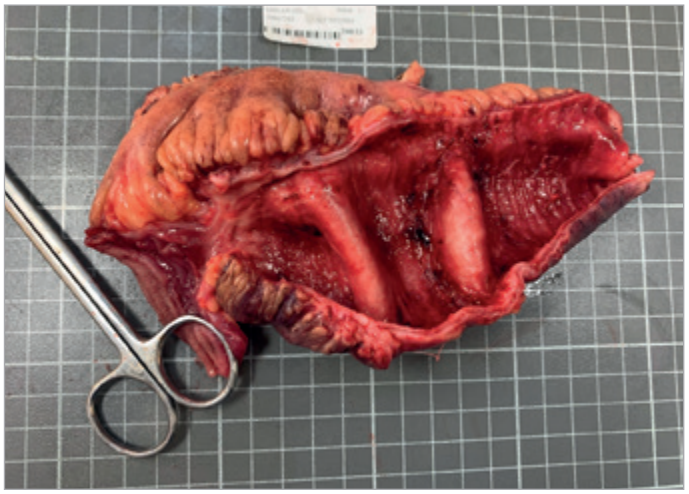
Discussion and Learning Points: NSAID use rarely cause peripheral ulcers with varying degrees of lumen narrowing, called diaphragm-like lesions. Although NSAID-enteropathy is among the causes of PLE; persistent hypoalbuminemia is rare in practice. Here, we report a case of NSAID-enteropathy with a diaphragm-like disease presenting with PLE and severe retractable hypoalbuminemia rather than obvious obstructive symptoms. Hypoalbuminemia spontaneously resolved after the resection. As our case and a couple of cases in the literature have pointed out, slow-onset obstructive pathology appears to contribute to well-known factors such as the inflammatory response in the intestinal wall, exudation from mucosal damage, tight junction dysfunction, and increased intestinal permeability. The possible role of a slow-onset obstructive pathology in NSAID-induced and other PLE needs to be further clarified.

Erosive and ulcerative diseases	**Non-erosive diseases**
Inflammatory bowel disease	Celiac disease, Tropical sprue
GI tract malignancy, lymphoma	Hypertrophic gastropathies
NSAID-enteropathy	Eosinophilic gastroenteritis
Infections (bacterial, viral, parasitic)	Lymphocytic gastritis
Pseudomembranous enterocolitis	Microscopic colitis
Erosive gastropathy	Connective tissue disorders
Ulcerative jejuno-ileitis	Small intestinal bacterial overgrowth
Graft-vs.-host disease	Amyloidosis
Sarcoidosis	Whipple's disease
	Parasitic / viral infections
Increased interstitial pressure, lymphatic abnormalities	
Intestinal lymphangiectasia	Mesenteric venous thrombosis
Congestive heart failure	Sclerosing mesenteritis
Constrictive pericarditis	Mesenteric tuberculosis or sarcoidosis
Congenital heart diseases	Neoplasia involving mesenteric lymph nodes or lymphatics
Fontan procedure for single ventricle	
Portal hypertensive gastroenteropathy	Chronic pancreatitis with pseudocysts
Hepatic venous outflow obstruction	Congenital malformations of lymphatics
Enteric–lymphatic fistula	Retroperitoneal fibrosis

#EV0514 Table 1: Etiologies of protein losing enteropathy.



#EV0514 Figure 1.



#EV0514 Figure 2.

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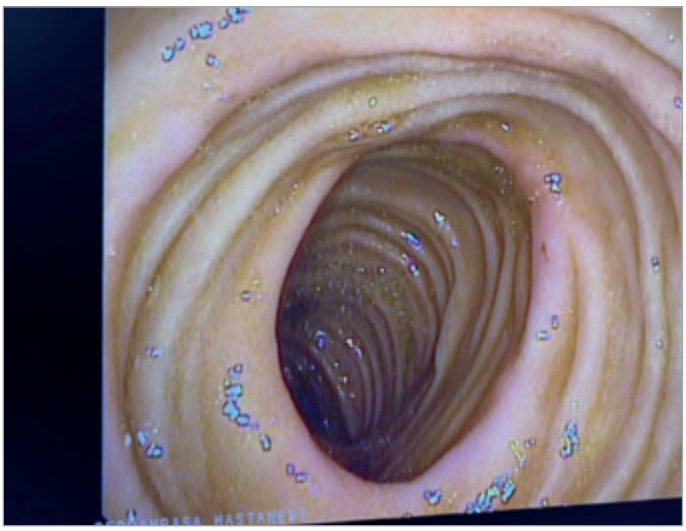

#EV0514 Figure 3.

1142 / #EV0515

METHYLDOPA ASSOCIATED ACUTE LIVER INJURY

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Case Description: A 33 years-old woman was admitted with a history of nausea, pruritus and jaundice. She was on methyldopa (started three months prior) for hypertension. Consumption of other medications/supplements and history of abroad travelling was denied. Clinical exam showed jaundice and painless abdomen with no palpable masses. There were no signs of hepatic encefalophaty or Kayser-Fleischer ring. Blood work: INR 1.6, elevated aminotransferases (>30x upper limit) and hiperbilirrubinemia (total bilirrubin/direct bilirubin 14.44/9.34 mg/dL). Abdominal doppler-ultrasonography with minor liver enlargement, absence of bile ducts dilation and permeability of portal and splenic venous circulation.

Clinical Hypothesis: Drug induced liver injury (DILI) associated with methyldopa was postulated and the drug was discontinued.

Diagnostic Pathways: Infectious causes were excluded with negative viral and zoonotic serologies. Antinuclear antibodies (ANA) were positive (1/60) with remaining autoimmune study negative. Iron metabolism wasn't suggestive of hemochromatosis and ceruloplasmin/urine copper were normal. Initial worsening of liver markers (maximum total bilirubin of 20 mg/dL) was observed, without clinical or laboratory findings suggestive of acute hepatic failure. Liver biopsy revealed lymphocytic inflammatory infiltrate in portal spaces, enlargement of hepatocytes with balonization and hyperplasia of Kupffer cells, compatible with DILI. Following drug discontinuation there was progressive improvement of hepatic markers, until complete normalization.

Discussion and Learning Points: DILI is a rare, idiosyncratic event, with an incidence of 14-20/100,000 persons/year. Severe liver injury associated with methyldopa is rare, generally arising weeks to months after starting therapy and ANA may be present during disease course. We present a case of DILI, selected for it's complex differential diagnosis and rarity of the involved agent.

999 / #EV0516

POTENTIAL ROLE OF SOLUBLE TRIGGERING RECEPTOR EXPRESSED ON MYELOID CELLS 2 (STREM-2) IN RISK STRATIFICATION OF PATIENTS WITH HEPATOCELLULAR CARCINOMA (HCC)

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Background and Aims: TREM-2 is a transmembrane receptor of the immunoglobulin superfamily that has been recently studied in many diseases including liver cancer. Nevertheless, its role is still unclear and there are no studies that have evaluated its soluble form (sTREM-2) as a biomarker. Thus, we aimed to explore the prognostic value of serum sTREM-2 in HCC.

Methods: An observational cross-sectional study of 184 HCC patients was performed. Serum sTREM-2 levels were quantified by using an enzyme-linked immunosorbent assay (ELISA).

Results: The median of sTREM-2 was 7.4 ng/ml [5.7-10.4 ng/ml]. sTREM-2 levels had a week correlation with age ($p = 0.024$) and a strong one with AST ($p = 0.001$). From the univariate analysis, an association with the BCLC stage emerged: more advanced stages correspond to higher values of sTREM-2 ($p=0.001$). Survival analysis showed that the increase in sTREM-2 levels over a threshold of 10 ng/ml (75th percentile) was significantly associated with a reduction in overall survival (log rank test with $p<0.0001$). The Cox proportional hazards model built having as predictors sex, age, presence/absence of cirrhosis/HCV infection and BCLC stage confirmed the independent prognostic value of a serum concentration of TREM-2> 10 ng/ml (HR 1.88, CI 1.22-2.88, $p=0.004$).

Conclusions: The present study demonstrates the potential negative prognostic role of sTREM-2 on overall HCC survival. However, future prospective studies are necessary to better elucidate whether the systematic assessment of sTREM-2 concentrations should be taken into account in the risk stratification of HCC.

DOI: 10.12890/2022_V9Sup1

728 / #EV0517

AUTOIMMUNE HEPATITIS: AWAKENED BY MINOCYCLINE

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Case Description: 20-year-old female admitted to the emergency room with abdominal pain, nausea and vomiting for the past week, associated with dark urine and yellowish skin. The patient had started treatment for cystic acne with mynocicline 3 weeks prior. No relevant medical history. Bloodwork showed elevated liver enzymes (AST 1800 U/L, ALT 2050 U/L) with high cholestatic parameters (total bilirrubin 8.7mg/dL, direct 7.9mg/dL, ALP 305U/L).

Clinical Hypothesis: Drug Induced Liver Injury (DILI); viral hepatitis; primary biliary cholangitis; autoimmune hepatitis (AIH)

Diagnostic Pathways: After adequate fluid repletion and discontinuation of suspect toxic agent, the patient initially showed marked clinical and analytic improvement. Further bloodwork revealed negative viral hepatitis serology, high IgG levels, and positive antinuclear antibodies in a high titration. Liver biopsy revealed periportal predominance of necroinflammatory lesions and interface hepatitis – typical findings of autoimmune hepatitis, thus establishing the diagnosis. The patient initiated treatment with prednisolone 60 mg/day and later switched to azathioprine, with complete normalization of lab results.

Discussion and Learning Points: When a patient presents with hepatocellular injury after initiating a new medication, specially if it has known hepatotoxic potential (as is the case with mynocicline) it is easy to assume it is solely the result of drug-induced liver injury. However, this case shows that further investigation, including liver biopsy, may be crucial for the correct diagnosis. In this case, the hepatotoxic potential of mynocicline triggered the first flare of AIH; however, unlike DILI, the suspension of the offending agent alone would not have offered complete recovery.

1138 / #EV0518

ULCERATIVE COLITIS AND EXOCRINE PANCREATIC INSUFFICIENCY: A RARE COMBINATION

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Case Description: A 64-year-old man with a history of chronic pancreatitis, but in alcohol withdrawal for at least 20 years, was admitted with fatigue and fatty diarrhea with blood (>6 daily stools) for the previous 20 days. He was apyretic, hypotensive, emaciated, pale and with peripheral oedema.

Clinical Hypothesis: Infectious/inflammatory or neoplastic diarrhea in a patient with pancreatic insufficiency.

Diagnostic Pathways: Laboratory tests showed anemia, neutrophilic leukocytosis, CPR 10.15 mg/dL, albumin 1.1 g/dL, K+ 2.8 mmol/L, total cholesterol 23 mmol/L, LDL 9 mmol/L, HDL 6 mmol/L, vitamin A <0.02 mg/L, vitamin D 17.5 pg/ml, vitamin E <1.0, vitamin K1 <0.20 ug/L, Fecal Elastase-1 < 100 mg/g. Blood and stool cultures were negative. He had negative anti-nuclear antibodies, IgG4, γ-globulin, γGT and AP. He was HIV negative. Abdominal CT angiography revealed gross pancreatic calcifications and pancolitis, without ischaemia. Colonoscopy showed friability, edema, and continuous superficial erosions with adherent mucus. Colon biopsies revealed inflammatory infiltrates, cryptitis, crypt distortion and a reduced number of goblet cells. CMV DNA was negative. These findings were compatible with severe acute ulcerative colitis and exocrine pancreatic insufficiency resulting in a severe deficit of fat-soluble vitamins and cachexia. Remission of UC was successfully induced with rectal budesonide and oral prednisolone. The hydroelectrolytic imbalance was compensated. He improved and was discharged on mesalazine, pancreatin and supplementation of vitamins A, D, E and K.

Discussion and Learning Points: Severe exocrine pancreatic insufficiency occurs in about 9% of ulcerative colitis cases. In this case, the alcoholic history was a confounding factor which led to a late diagnosis.

2677 / #EV0519

RECURRENT PANCREATITIS IN A PATIENT WITH BULIMIA

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Case Description: Female, 25 years old, history of probable inflammatory bowel disease, bulimia, and family history of Cystic Fibrosis (CF). The patient presented with abdominal pain, nausea, vomiting, and diarrhea. Objectively with pain on abdominal palpation, without signs of peritoneal irritation.

Clinical Hypothesis: Acute pancreatitis Acute gastroenteritis

Diagnostic Pathways: Analytical study with an elevation of pancreatic enzymes (amylase 146 vU/L, lipase 259 U/L), without hypercalcemia. No renal dysfunction and no elevation of inflammatory parameters. No hypertriglyceridemia. Negative viral markers. Autoimmune study without alterations. Normal dosage of immunoglobulins. Genetic study for FQ negative. Abdominal ultrasound without evidence of gallstones. Thoracoabdominopelvic computed axial tomography without alterations.

Discussion and Learning Points: Most patients with pancreatitis have excessive alcohol consumption or vesicular lithiasis. However, several other causes may contribute to the development of this entity. This case is the second episode of acute pancreatitis within a month. The etiological study: obstructive, genetic, and

 DOI: 10.12890/2022_V9Sup1

alcoholic etiology were excluded. No evidence of infection. No consumption of suspected drugs. No evidence of autoimmune disease. Given the history of Bulimia, and after excluding other causes, repeated pancreatitis as a complication of this psychiatric entity was the most probable hypothesis. Fluid therapy and a zero diet were introduced. The patient presented a favorable evolution, with normalization of pancreatic enzymes. Bulimia is an eating disorder common in young people and is related to medical complications. Pancreatitis is one of these situations, although the mechanism involved remains unclear. Therefore, this case alerts to the importance of considering the diagnosis of Bulimia in young patients without typical risk factors for pancreatitis.

2726 / #EV0520

ACUTE HEPATITIS SECONDARY TO NITROFURANTOIN: DIAGNOSTIC APPROACH

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Case Description:
Female, 85 years old, with a history of recurrent cystitis, usually medicated with nitrofurantoin in prophylactic dose for about 4 years. The patient presented with jaundice and choluria with 1 month of evolution, with no other symptoms.
Clinical Hypothesis: Acute hepatitis; biliary tract neoplasm; liver cancer.
Diagnostic Pathways: Analytical study with cytolysis, cholestasis, and hyperbilirubinemia. Negative viral markers. No coagulopathy. abdominal ultrasound and abdominopelvic axial computed tomography without obstructive lesion or visible dilatation of the biliary tract.
Discussion and Learning Points: So we are facing a picture of acute hepatitis, without acute liver failure. This can result from a wide variety of causes (viral, alcoholic, autoimmune, drugs-induced...). After investigation: no evidence of neoplastic process, no epidemiological context for hepatotropic bacteria or parasites, no symptoms suggestive of autoimmunity. Nitrofurantoin was identified as the cause of the hepatic lesion, the drug was suspended and there was a favorable evolution, with normalization of liver enzymes. Pharmacological toxicity is an important cause of acute hepatitis, although is a challenging diagnosis and a diagnosis of exclusion. In the particular case of nitrofurantoin, it is known that the acute form of presentation is less common and appears mainly in the form of hepatocellular damage which is reversible on withdrawal of the drug. A detailed clinical history and the analytical and imagiological exclusion of the other possible causes were essential for the diagnostic progression in this patient. This clinical case is about the importance of recognizing toxic hepatic lesions to proceed as early as possible to remove the aggressor agent and avoid deleterious consequences.

155 / #EV0521

CELIAC DIASESE WITH IMPROBABLE PRESENTATION

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Case Description: A 60-year-old autonomous man with no relevant medical history was sent to the emergency department (ED) for anemia of 6.3 g/dL. In the ER, he reported asthenia with a month of evolution associated with dysphagia for solids, denying visible blood loss, abdominal pain, weight loss, or other complaints.
Clinical Hypothesis: Neoplasm, malabsorption disorder.
Diagnostic Pathways: He transfused two units of red blood cells and collected a new analytical study, which revealed a deficit of iron (ferritin – 3.0 ng/mL, iron – 10 ug/dL), folic acid (2.6 ng/ml), and vitamin B12 (188 pg/ ml). Upper digestive endoscopy was performed, which revealed atrophic duodenopathy, whose histology revealed villous atrophy, intraepithelial lymphocytosis, and cryptitis, findings suggestive of CD (Marsh 3). Reassessed in an Internal Medicine consultation, where there was a negative anti-endomysial IgA antibody (1/320) and a positive anti-transglutaminase IgA antibody (104.0 U/ml) with normal levels of immunoglobulin A (253 mg/dL), confirming the diagnosis of DC. Although this diagnosis justified the microcytic and hypochromic anemia, due to the abrupt onset and the need for transfusional support, a capsule enteroscopy was requested, which revealed a proximal jejunal adenocarcinoma. The patient underwent segmental enterectomy and is currently undergoing neoadjuvant chemotherapy.
Discussion and Learning Points: We describe a case of a patient with a low probability of CD (no history of diarrhea or family history), whose initial manifestation was an adenocarcinoma. Even after the "unexpected" diagnosis, the maintenance of the clinical suspicion that "there could be something else", led to the diagnosis of a jejunal neoplasm quickly, with a drastic improvement in its prognosis.

397 / #EV0522

CORRELATION BETWEEN MARKERS OF SYSTEMIC INFLAMMATION AND FIBROSIS SCORES IN A SAMPLE OF ROMANIAN NON-ALCOHOLIC FATTY LIVER PATIENTS

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Background and Aims: This paper evaluates a group of patients with non-alcoholic fatty liver compared with a group of healthy subjects in terms of serological markers of inflammation. We studied correlations between markers of inflammation and non-invasive liver fibrosis markers.
Methods: We measured IL6, IL8, TNFα, EPO and PCR in 4120

 DOI: 10.12890/2022_V9Sup1

patients with non-alcoholic fatty liver and 34 healthy subjects. We triesearched for existence of associations between them and various biological or anthropometric values and also liver fibrosis markers.
Results: We found a tight linear correlation between levels of inflammatory markers IL6-TNF, IL6- CRP, TNF-CRP. We see an acceptable degree of association between TNF levels-waist circumference, CRP-waist circumference, waist circumference-IL6, CRP-GGT, GGT-IL6. I also found a significant linear correlation between markers of inflammation and fibrosis Forns index (IL6-Forns - r=0.47, TNF-Forns - r=0.32; EPO-Forns - r=0.25). Correlation were found between inflammatory markers and anthropometric /biochemical values IL6-TNF- r=0.7, IL6-CRP - r=0.9, IL6-Age - r=0.24, IL6-Forns - r=0.47, IL6-ASPRI - r=0.2, IL6-Waist- r=0.34, IL6-Glycemia -r=0.21, IL6-GGT- r=0.33 TNF-Forns - r=0.32, TNF-CRP- r=0.68, TNF-Waist - r=0.33, TNF-Body mass index (BMI) - r=0.2, CRP-Waist - r=0.37, CRP–GGT - r=0.3, EPO-Forns- r=0.25, EPO-ALAT- r=-0.11.
Conclusions: Close linear correlations between markers of inflammation found in NAFLD patients sustain synergistic participation of these proinflammatory cytokines in predevelopment processes of liver fibrosis. The correlation between IL6 and Forns index of liver fibrosis demonstrates involvement of this cytokine in the pathogenesis of fibrosis process.

821 / #EV0523

LEPTOMENINGEAL MENINGITIS: ABOUT A CASE

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Case Description: A 50-year-old man with no relevant history presents deterioration of the general state without fever and epigastric pain that was not related to meals or postural changes of two-weeks evolution. Examination revealed low level of consciousness, jaundice and subcentrimetric supraclavicular lymphadenopathy of stone consistency. No abdominal pain. No vesicles or genital lesions.
Clinical Hypothesis: Sexually transmitted infections (STIs), severe hypoglycemia, acute hepatitis, hypercapnic encephalopathy or gastrointestinal carcinoma.
Diagnostic Pathways: Metabolic causes of low level of consciousness such as hypercapnic encephalopathy, hypoglycemia and hepatic encephalopathy were ruled out after blood tests. Serology for STIs and hepatotropic viruses were requested, all negative. A cranial computed tomography (CT) scan was performed without findings, cranial magnetic resonance imaging showing images compatible with carcinomatosis and lumbar puncture, which guided the case as signet ring cells were found in the biopsy, suggesting gastrointestinal origin. Finally, abdominal CT was requested, showing thickening at the level of the ampulla of Vater and dilation of the intrahepatic bile duct. It was not confirmed histologically because of the poor clinical situation of the patient.
Discussion and Learning Points: Signet ring cells are associated with gastrointestinal carcinoma, however, they have also been seen in mammary tumors. The immunohistochemical profile is what helps to elucidate the origin. In the case of the breast, hormone receptors and cytokeratin 7 are usually positive, while positivity for cytokeratin 20 and CEA support the gastrointestinal origin. However, the negativity of these markers does not exclude the diagnosis.

911 / #EV0524

EFFECTS OF COMBINED ANTIHYPERTENSIVE THERAPY ON CHRONIC LOW-INTENSITY SYSTEMIC INFLAMMATION AND INSULIN RESISTANCE IN PATIENTS WITH ARTERIAL HYPERTENSION AND NON-ALCOHOLIC FAT DISEASE

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Background and Aims: To assess the effect of 24-week combined antihypertensive therapy with ramipril and indapamide on insulin resistance (IR) and indicators of chronic low-intensity systemic inflammation in patients with hypertension and NAFLD.
Methods: 30 patients with stage I-II hypertension in combination with NAFLD (FLI>60) at the age of 45-65 years were included. All patients were prescribed one of the fixed combinations of ramipril (2.5/5mg) and indapamide (0.625/1.25 mg) and were given recommendations for weight loss. The parameters of office measurement of blood pressure, indices of insulin resistance (HOMA-IR and metabolic index (MI)), concentration of C-reactive protein (CRP) and tumor necrosis factor alpha (TNF-α) in blood serum before and after treatment were evaluated.
Results: Against the background of 24-week therapy with a fixed combination of ramipril and indapamide at an average dosage of 4.04±1.24 and 1.01±0.31, respectively, in patients with AH and NAFLD, target BP levels were achieved in 100% of patients. When assessing the indices of insulin resistance, a significant decrease in HOMA-IR (1.4 [1.0;3.2] vs 1.0 [0.6;1.4], p=0.0021) and MI (5.0 [3.5;7.4] vs 4.3 [3.1;5.7], p=0.0300) was found. A statistically significant decrease in TNF-α (7.6 [5.6;9.7] pg/ml vs 2.6 [1.8;2.9] pg/ml, p=0.0000) and CRP (14.5 [12.7;15.2] mg/L vs 7.6 [3.6;11.0] mg/L, p = 0.0002) was revealed.
Conclusions: Use of a fixed combination led to a significant normalization of blood pressure in patients with AH and NAFLD. There is a decrease in the severity of insulin resistance, chronic inflammation, which indicates the effect of this combination on important links in the pathogenesis of both AH and NAFLD.

 DOI: 10.12890/2022_V9Sup1

1165 / #EV0525

SIGNIFICANCE OF LIVER FIBROSIS IN HEPATORENAL RELATIONSHIPS IN PATIENTS WITH CHRONIC HEART FAILURE AND NON-ALCOHOLIC FATTY LIVER DISEASE

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Background and Aims: To assess the significance of liver fibrosis in hepatorenal relationships in patients with chronic heart failure (CHF) and non-alcoholic fatty liver disease (NAFLD).
Methods: The study included 120 patients with CHF (45 to 65 years). The patients were divided into groups: the main (ultrasound signs of NAFLD) and the control (isolated CHF). Diabetes mellitus was excluded. A biochemical blood test was performed with an assessment of the liver tests with counting of NFS, stage of chronic kidney disease (CKD), combined risk of cardiovascular complications (CVC) and progression of CKD; glomerular filtration rate (CKD-EPI).
Results: In the main group a correlation was found between the NFS and proteinuria and albuminuria ($r=0.60$ and $r=0.53$, $p<0.05$), and with the stage of CKD and combined risk ($r=0.30$, $r=0.25$, $p<0.05$). The liver fibrosis in this group correlated with CHF - the result of 6-minute walk test and functional classes of CHF ($r=-0.3$, $r=0.3$, $p<0.05$). In the control group a correlation was found between the NFS and the size of the portal vein and the right and left liver lobe from ultrasound: $r=0.64$, $r=0.4$, $r=0.34$, $p<0.05$.
Conclusions: In the main group pronounced fibrotic changes in the liver are more common, significant correlations indicating the effect of progression of liver fibrosis on the deterioration of the kidneys state and an increase in the combined risk.

658 / #EV0526

HEMATOMA OF THE SMALL INTESTINE SECONDARY TO AN OVERDOSE OF ANTI-VITAMIN K: AN EXCEPTIONAL COMPLICATION

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Case Description: 64-year-old patient with a history of severe mitral stenosis treated with valve replacement and put on Vitamine K antagonists (VKA) 3 weeks before his hospitalization in an internal medicine department in January 2021. He complained of acute left lumbar pain, macroscopic hematuria and urination burns.The examination found a painful left lumbar palpation, the rectal examination showed no bleeding, the remainder of the examination was unremarkable.
Clinical Hypothesis: In view of patient's presentation and history we recalled, internal hemorrheage due to VKA overdose and kidney infection.
Diagnostic Pathways: Blood tests found an undetectable, high INR level, elevated inflammatory markers with no anemia in cell blood count, the rest of the laboratory workup was normal. The urinary cultures were positive for *Escherichia coli*. Abdominal CT scan first found only an aspect of uncomplicated acute left pyelonephritis, it was only the day after upon re-examination of the images that a jejunal hematoma of 3 centimetres long was observed. We made sure to stop the VKA, administer prothrombin complex concentrate, intestinal rest with parenteral nutrition as well as appropriate antibiotic therapy with good clinical, biological and radiological outcome.
Discussion and Learning Points: Although internal hematoma was expected in this case, the infrequency of such localization made the radiologic diagnosis of this pathology quite challenging. This highlights the importance of considering parietal hematoma of the small intestine as a differential diagnosis of gastrointestinal and renal symptoms in patients with anticoagulation.

876 / #EV0527

LIVER STIFFNESS AND AUTOIMMUNE PROFILE IN A COHORT OF PATIENTS WITH SYSTEMIC SCLEROSIS

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Background and Aims: Systemic sclerosis (SS) is characterized by skin fibrosis and involvement of esophagus, lungs, heart and kidneys. The extent of liver involvement is unclear. The aims of the study are, firstly, to evaluate the prevalence of liver fibrosis by transient elastography in patients with SS, and secondly, the prevalence of hepatic autoimmunity alterations.
Methods: A cross-sectional observational study was performed on 97 SS patients, enrolled between January 2018 and February 2019. All patients underwent a clinical evaluation with anthropometric measurements, serological tests and transient elastography (for measurement of liver stiffness (LS) and controlled attenuation parameter (CAP)).
Results: In our population 11 patients had LS ≥7.5 kPa and 5 patients showed a LS compatible with cirrhosis (LS ≥12.5 kPa). At univariate analysis, predictors of LS ≥7.5 fibrosis were alcohol consumption, waist circumference, elevated alkaline phosphatase (ALP) levels, anti-La and anti-mitochondrial antibody (AMA) positivity. Out of 97 patients, 18 were positive for AMA, 4 for anti-Sp100, 1 for anti-gp210 and 7 were diagnosed with primary biliary cholangitis. CAP values compatible with severe steatosis (≥280 dB/m) were observed in 6 patients. Waist circumference, body mass index and diabetes mellitus were predictors of steatosis.
Conclusions: Since liver fibrosis prevalence is not negligible in the context of SS, at least one transient elastography is suggested on diagnosis. The expected predictors of fibrosis were confirmed. According to the predictors for steatosis, education of patients

 DOI: 10.12890/2022_V9Sup1

about lifestyle and diet is useful. The prevalence of AMA positivity is relevant, confirming the need for liver autoimmune screening in this specific setting.

2527 / #EV0528

SEVERE JAUNDICE AS PRESENTATION OF HEPATITIS E, A CASE REPORT

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Case Description: Hepatitis E is the main non-A hepatitis transmitted by the faecal-oral route and tends to present as acute hepatitis. While it's seen mostly in developing countries as endemic, it's now known as one common cause of acute hepatitis in many European countries with more than 20.000 cases reported over the last decade. This case reports a 55-year-old man living in Portugal, with alcohol consumption of about 80g/day, with no history of travelling and no other medical background that comes to the ED with complaints of asthenia, dark urine and jaundice, ending up being hospitalized for cholestatic liver disease.
Clinical Hypothesis: During hospitalization, alcoholic hepatitis, autoimmune hepatitis, biliary duct tumour, infiltrative diseases, Rotor and Dubin-Johnson syndromes, EBV, CMV and HSV infection and Hepatitis A, B, C and D were all ruled out.
Diagnostic Pathways: A diagnosis of hepatitis E was made based on the presence of IgG and IgM HEV antibodies. The patient showed clinical improvement and has been discharged and referred for Internal Medicine consultation. At reevaluation, he was already asymptomatic and without evidence of jaundice.
Discussion and Learning Points: The consumption of undercooked pork is a known cause of infection and is commonly present in the Mediterranean diet. Thus, the authors aim to emphasize that although Portugal is not an endemic territory for HEV infection, this diagnosis should be considered in the setting of acute hepatitis.

194 / #EV0529

STATIN TOXICITY - A CASE REPORT

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Case Description: We present a case of a 54 year-old woman with cirrhosis due to chronic hepatitis B infection and non-alcoholic steatohepatitis, with suspected familial hypercholesterolemia. She was started on atorvastatin 80 mg and ezetimibe 10 mg in July and came to the emergency department in september complaining of myalgias and easy mucosal bleeding. She presented rhabdomyolysis (CK was 24,286 U/L, myoglobin was >12,000 ng/mL) with acute kidney injury and worsening liver enzymes with hyperbilirrubinemia and coagulopathy.
Clinical Hypothesis: Given the absence of trauma or history of convulsion, the possibility of rhabdomyolysis and subsequent organ dysfunction secondary to statin was considered.
Diagnostic Pathways: The patient presented criteria of acute on chronic liver failure and transiently needed renal replacement therapy due to anuria. Transjugular hepatic biopsy was performed and it showed multifocal steatosis and signs of VHB infection. Active alcohol consumption was excluded and potential toxic medications were suspended. She eventually had a favorable evolution with the support provided.
Discussion and Learning Points: This was a case of an acute on chronic liver failure and severe rhabdomyolysis possibly related to a statin. This situation highlights the importance of monitoring muscle enzymes after initiating high dose statin, and raises the debate about the possible indication to initiate treatment with a PCSK9 inhibitor in patients with severe hypercholesterolemia that presented relevant side effects attributable to statins.

264 / #EV0530

CHOLESTATIC HEPATITIS AS A FORM OF SYSTEMIC SARCOIDOSIS

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Case Description: A 36-year-old man from Mali with 8 years of residence in Spain, whit pruritus and asthenia of months of evolution. Analytically it highlighted: GOT/GPT 340/289, GGT 552 and FA 1024 IU/L; Total cholesterol 274 and bilirubin 2.27 mg/dL (Direct 2 mg/dL), ESR 54. It provided abdominal ultrasound with patchy hepatic steatosis, whit no further findings.
Clinical Hypothesis: Serology of the main viruses (HIV, A, B, C, CMV, EBV) was performed with a negative result. Expanded to less frequent bacterial, fungal and parasitic entities with equally negative results, as well as Mantoux and autoimmunity study.
Diagnostic Pathways: In the absence of an etiology and denying the patient consumption of hepatotoxic drugs, a liver biopsy was carried out describing the presence of sarcoid-type granulomas punctually with central necrosis suggesting the diagnosis of "Granulomatous hepatitis of the Sarcoid type". Chest x-ray showing bilateral and symmetrical bronchopulmonary adenopathies, as well as right parahilar nodular granulomatous pattern; Thoracoabdominal CT scan describing multiple granulomatous lung, hepatic, and probably splenic lesions. Respiratory functional tests that showed DLCO 63%.
Discussion and Learning Points: Sarcoidosis is a multisystem disease and there is extrapulmonary involvement in up to 30% of cases. The liver will be affected in most patients with sarcoidosis. Definitive diagnosis requires a compatible clinical and radiological picture, a biopsy with the presence of non-caseifying granulomas and the exclusion of other causes of granulomatous disease,

 DOI: 10.12890/2022_V9Sup1

including the processing of samples for mycobacteria and fungi. The need to start treatment will be determined mainly by the degree of lung involvement. With regard to liver disease there is a greater controversy.

978 / #EV0531

OVERLAP SYNDROME PRIMARY BILIARY CHOLANGITIS / AUTOIMMUNE HEPATITIS IN A PATIENT WITH COVID-19

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Case Description: 67-year-old woman with a week long dry cough, asthenia, nausea, anorexia, choluria and pruritus. Personal history of hypertension and colon cancer. Medicated with telmisartan and mirtazapine. Denied consumption of hepatotoxic substances or risk behaviors. On admission apyretic, eupneic, hemodynamically stable, jaundiced, with discomfort at the right hypochondrium. Initial blood tests showed increased inflammatory parameters, cytocholestasis, mixed hyperbilirubinemia, INR of 1,6. Abdominal ultrasound showed mild dilatation of the main biliary tract and no identified obstructive cause. Computed tomography confirmed ultrasound findings with signs of chronic liver disease.
Clinical Hypothesis: Patient was hospitalized for study of hepatitis from unknown cause.
Diagnostic Pathways: Blood test were carried out. Viral serologies for hepatotropic viruses and ceruloplasmin levels were negative, autoimmunity antibodies positive for anti-glycoprotein-210, specific for primary biliary cholangitis (PBC). Hypergammaglobulinemia was present with elevation of immunoglobulin G. Positive test for SARS-CoV2. Given all findings liver biopsy was performed with histology compatible with autoimmune hepatitis (AIH), confirming the diagnosis of overlap syndrome (PBC and AIH). Corticotherapy was started with good initial response, however the patient had progressive respiratory failure leading to her death.
Discussion and Learning Points: Overlap syndromes are a unique group of pathologies characterized by the combination of autoimmune liver diseases, where liver biopsy plays a major role in their diagnosis. This clinical case demonstrates the difficulty of managing the patient with COVID-19, not only due to the lack of knowledge about the extrapulmonary repercussions, but also due to the existence of other concomitant pathologies.

597 / #EV0532

TWO SIDES OF THE SAME COIN: BLEEDING AND THROMBOSIS

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Case Description: We report the case of a healthy 47-year-old woman who was admitted due to one week of asthenia and melena. Blood test revealed a hemoglobin of 4.5g/dL, consequently red blood cells transfusions were prescribed.
Clinical Hypothesis: Clinical suspicion was gastrointestinal bleeding.
Diagnostic Pathways: Gastro and colonoscopy were performed, not identifying its origin. Finally, a computed tomography (CT) showed a tumor in the third duodenal portion, with an exophytic and hypervascular pattern. An incidental pulmonary embolism (PE) in the right lower lobe was also detected. Since anticoagulation was contraindicated due to active bleeding, an inferior vena cava (IVC) filter was placed. One month later the tumor was removed with local surgery. The histology disclosed a gastrointestinal stromal tumor (GIST) with low risk of progression. Three weeks after surgery, apixaban was introduced.
Discussion and Learning Points: Gastrointestinal bleeding is the most frequent symptom in GISTs. These tumors are difficult to diagnose; however, they represent a 5 to 10% of all gastrointestinal hemorrhages. Delays in diagnosis may increase the risk of complications, including bleeding, perforation or dissemination, thus worsening the prognosis. Therefore, it is convenient to think of GISTs in patients with persistent anemia and anodyne endoscopies. In addition, literature demonstrates that IVC filters are safe in PE when anticoagulation is contraindicated but surgery is required. Nevertheless, temporal filters are preferred to avoid complications.

1526 / #EV0533

FIVE-YEAR FOLLOW-UP OF CURED HCV PATIENTS WITH OR WITHOUT LIVER CIRRHOSIS UNDER REAL-WORLD INTERFERON-FREE THERAPY

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Background and Aims: Treatment of hepatitis C virus (HCV) infections with direct-acting antivirals (DAA) has demonstrated high efficacy even in patients with liver cirrhosis. The three-year stability of a sustained virological response (SVR) and an improvement in liver function with a persistent risk of hepatocellular carcinoma (HCC) has so far been confirmed in the

 DOI: 10.12890/2022_V9Sup1

literature. The purpose of the current study is to evaluate the virologic response, changes in liver function, stiffness, and risk of HCC five years following the treatment.
Methods: A total of 192 patients originally infected with HCV genotype 1 or 4 were analyzed five years after treatment with ombitasvir/paritaprevir/ritonavir with or without dasabuvir and with or without ribavirin. Most of the patients were diagnosed with cirrhosis before treatment (57%) and did not respond to previous treatment attempts (69%).
Results: We confirmed that HCV clearance after DAA treatment is stable regardless of baseline advancement of the disease. We found that SVR is associated with a gradual but significant reduction in liver stiffness over 5 years. Liver function improved during the first 2 years of follow-up and remained stable thereafter. The risk of death due to HCC or any reason persists through 5 years after successful DAA treatment. However, in non-cirrhotic patients, it appears to clear up 3 years after treatment.
Conclusions: Despite the successful treatment of HCV infection 5 years after its completion, patients with cirrhosis are still at risk of developing liver cancer. This justifies screening for HCV, allowing therapy before the development of liver cirrhosis.

474 / #EV0534

BOWEL OBSTRUCTION IN A YOUNG PATIENT

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Case Description: A 56-year-old male, suffering abdominal pain, vomiting and constipation. On physical examination, a distended and tympanic abdomen, with localized defense. Apyretic, hemodynamic stability, anodyne examination. In analysis, c-reactive protein 78 mg/dl. Abdominal X-ray with a dilated small bowel. Abdominal-CT with a dilated small bowel, collapsed terminal ileum, secondary to chronic subocclusive symptoms, increased density and trabeculation of meso fat, suggesting secondary surgical flange or internal hernia. Gross calcifications are observed in the mesenteric fat, in relation to possible calcified adenopathies, and free fluid. General Surgery was contacted to perform urgent exploratory laparotomy, showing a thickened and fibrous layer of whitish peritoneum, encapsulating the small bowel.
Clinical Hypothesis: With the macroscopic intraoperative findings, we reached the diagnosis of sclerosing encapsulating peritonitis (SEP).
Diagnostic Pathways: The etiological screening is expanded, with tumor markers, autoimmunity, screening for celiac disease, immunoglobulins and subclasses, viral serologies (hepatotropes, CMV, HIV) and *Mycobacterium tuberculosis*, with negative results. The patient was diagnosed with primary SEP, starting steroid therapy and being referred for follow-up in consultations.
Discussion and Learning Points: PEE is a rare cause of intestinal obstruction, characterized by progressive fibrosis of the visceral peritoneum that affects the small intestine. In its most severe form it causes a picture of intestinal obstruction. It's frequently secondary to peritoneal dialysis, liver cirrhosis or treatment with propranolol. Its primary or idiopathic form is less frequent, and there are very few currently published cases. To reach the definitive diagnosis, an intraoperative examination is necessary, where a thickened peritoneum with areas of fibrosis and calcification is observed, without the need for histological confirmation.

1759 / #EV0535

INTESTINAL PNEUMATOSIS: CASE SET

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Case Description: There are 3 cases of intestinal pneumatosis diagnosed incidentally by colonoscopy:
Case 1: 72-year-old woman who underwent a follow-up colonoscopy after endoscopic polypectomy 1 year ago.
Case 2: A 74-year-old man who undergoes a colonoscopy requested by his Primary Care Physician due to diarrhea of two months of evolution.
Case 3: 48-year-old man who attended, after colonoscopy in a private center, for colicky abdominal pain associated with diarrhea without pathological products.
Clinical Hypothesis: Mesenteric ischemia.
Diagnostic Pathways: In our cases, the symptoms were nonspecific: diffuse abdominal pain with distension and diarrhea. The diagnosis is mainly based on complementary tests: plain abdominal radiography (test that usually makes suspect), endoscopy and CT (confirmatory tests).
Discussion and Learning Points: Cystic intestinal pneumatosis is characterized by the presence of mucous or subserous cysts, filled with gas, usually located in the wall of the large or small intestine (and may affect other locations). It is not by itself a disease, but a clinical sign, which can be detected as an incidental finding or it can be a marker of intestinal ischemia or impending perforation. Its actual incidence is unknown because in many cases it is asymptomatic and is not diagnosed. There are three theories regarding its pathogenesis: mechanical, bacterial or biochemical in origin; its origin being able to be found in a combination of the three. The treatment of pneumatosis is necessary in case of moderate or severe symptoms, being indicative to start antibiotic therapy together with a diet low in carbohydrates and inhalation of oxygen at high flows.

 DOI: 10.12890/2022_V9Sup1

689 / #EV0536

DRUG-INDUCED ACUTE PANCREATITIS – RARE OR UNDERREPORTED? TEN YEARS OF EXPERIENCE IN AN UNIVERSITY HOSPITAL

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Background and Aims: Drug-induced pancreatitis (DIP) is a rare entity accounting for less than 2% of acute pancreatitis (AP). Our aim is to characterize DIP hospitalizations in an Internal Medicine Department of a Portuguese Hospital.
Methods: Retrospective study of DIP admissions between 2012 and 2021. Demographic, epidemiological, imaging and laboratory data were assessed. Severity was determined with BISAP score, complications, and outcome. Naranjo scale was used to categorize adverse reaction.
Results: 17 patients were admitted with mean age of 59±19 years (15-89), 70.6% were female. The major culprit drug class were inhibitors of dipeptidyl peptidase 4 (35.3%), followed by antimetabolites (23.5%) and fibric acid derivatives (11.8%). Latency of DIP ranged between five days and three years. Most drugs were begun six weeks prior to admission. Other main causes of AP (alcohol, biliary, hypertriglyceridemia and hypercalcemia) were discarded in all patients thus drug adverse reactions were probable according to Naranjo scale. Rechallenge wasn't performed. All patients presented with abdominal pain, though nausea and vomiting were found in seven patients (41.1%). A 3-fold elevation of amylase or lipase occurred in 70.6%. Only four patients had peripheral blood eosinophilia. BISAP score was 0-1 in 14 patients (82.4%) and 2 in the remaining. None developed local or systemic complications. The average length of stay was 4±1.5 days. No mortality nor recurrence was reported.
Conclusions: DIP is an underreported entity, due to its unsuspected nature, difficulty in causality establishment and ethical concerns in rechallenging. Although typically with a benign course, failure to recognize the offending drug delays treatment and worsens outcome.

1159 / #EV0537

ACUTE PANCREATITIS ASSOCIATED WITH STRUCTURAL ANOMALIES – CONSEQUENCE OR COINCIDENCE? TEN YEARS OF EXPERIENCE IN A PORTUGUESE HOSPITAL

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Background and Aims: Structural anomalies (SA) can obstruct the pancreatic duct and be associated with acute pancreatitis (AP), accounting for <10% of the cases. Our aim is to characterize SA associated with AP (SAAP) hospitalizations in an Internal Medicine Department of a Portuguese Hospital.
Methods: Retrospective study of SAAP admissions between 2012-2021. Demographic, epidemiological, clinical, imaging and laboratory data were assessed.
Results: 15 patients were admitted with a mean age of 52±14 years (26-74), nine (60.0%) were female. The most prevalent SAAP were pancreatic tumors and pancreatic cystic lesions (33,3%, each), followed by pancreas divisum or other pancreatic malformations (20.0%) and periampullary tumors (13.3%). Patients with other causes of AP (alcohol, biliary, hypertriglyceridemia, hypercalcemia, autoimmune, post-procedure and drug-induced) were rejected. All presented with abdominal pain; nausea and vomiting were found in 60.0% and 46.7%, respectively; none had fever. A 3-fold elevation of amylase or lipase occurred in 73.3%. BISAP score was 0 in 8 patients (53.3%) and 1 in the remaining. All SA were evaluated by imaging, mostly by computed tomography (93.3%), followed by transabdominal ultrasound (60.0%), magnetic resonance (46.7%) and endoscopic ultrasound (26.7%). None progressed with systemic complications, but two (13.3%) developed a pseudocyst as a local complication. The average length of stay was 5±1.9 days. No deaths were reported. Four patients (26.7%) completed corrective surgery at some point, all tumor-related.
Conclusions: Clinical significance of SA is controversial and causality is difficult to establish. It encompasses a broad spectrum of etiologies, some potentially serious and important to recognize, considering the prospect of a curative intervention.

 DOI: 10.12890/2022_V9Sup1

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STREPTOCOCCUS ANGINOSUS PERITONITIS AS THE INITIAL PRESENTATION OF PANCREATIC NEOPLASIA

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Case Description: We present a case of an 85-year-old woman who goes to the emergency department due to diarrhea with 4 weeks of evolution. No relevant personal history. On admission, the patient presented apyretic, hemodynamically stable and with a painful abdomen on palpation. The complementary study highlighted PCR of 30.19 mg/dL, worsening of liver cytocholestasis parameters and the abdominal ultrasound showed a large solid mass in the pancreas and septate peritoneal effusion. Paracentesis (PC) was performed with the identification of 14,324 polymorphonuclears (PMN).

Clinical Hypothesis: Faced with a diagnosis of peritonitis, we started cefoxitin.

Diagnostic Pathways: The microbiological result of the ascitic fluid identified *Streptococcus anginosus*. A new control PC was performed, which showed a worsening of the PMN value (285,707) and the abdominal CT identified a solid primary lesion at the pancreatic level with liver metastases, tumor implants in the rectum, a stenotic ulcerated lesion in the transverse colon and peritoneal effusion. We couldn't exclude intestinal perforation and pneumoperitoneum.So, the patient underwent exploratory laparotomy but eventually died.

Discussion and Learning Points: *Streptococcus anginsus* is a commensal agent of the colon microbiome. They are prone to abscess formation. In this case, its detection in the ascitic fluid was probably secondary to the bacterial translocation verified at the level of the ulcerated lesion presented there. The detection of pancreatic neoplasms in early stages is rare, and the case demonstrates how a simple symptom can mask a catastrophic and irreversible evolution of a disease, in which it is not yet possible to carry out an adequate screening, diagnosis and treatment in a timely manner.

2114 / #EV0539

TERMINAL ILEITIS PRESENTING AS CHRONIC CONSTIPATION

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Case Description: A 43-year-old female, presented to an Emergency Department (ED) with epigastralgia, vomiting, abdominal pain, weight loss and constipation for a few months. The patient had a medical history of chronic gastritis and dyslipidemia. Physical examination revealed a painful and tympanic abdomen to palpation and percussion, respectively.

Clinical Hypothesis: Crohn's Disease presenting as Ileocolitis.

Diagnostic Pathways: A workup comprising blood analyses demonstrated a microcytic anemia, a slight increase of velocity sedimentation rate and C reactive protein high. A total colonoscopy was performed and edema of the ileal mucosa was macroscopically visualized. A biopsy of terminal ileum, distal colon and rectum described a chronic inflammation involving these anatomical segments. Serologies for viral and parasitic infections were negative as well as microscopic examination of stools specimens for parasitic infections. Anti-Saccharomyces cerevisiae antibodies (ASCA) and anti-neutrophil cytoplasm antibodies (ANCA) were negative. Magnetic resonance (MR) enterography with intraluminal contrast confirmed a short small bowel segment not affected, alternating with a circumferential thickening of intestinal mucosa, causing a small bowel distension.

Discussion and Learning Points: Ileocolitis is the most common presentation of Crohn's disease (CD). It affects the last section of the small intestine, known as the ileum, and the colon. Abdominal pain and diarrhea are usual symptoms. CD should be among the differential diagnoses for not only chronic diarrhea, but also for constipation in adults.

2051 / #EV0540

RESPONSE TO COVID-19 VACCINES AMONG CELIAC DISEASE PATIENTS

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Background and Aims: SARS-CoV-2 infection and development of the disease COVID-19 is a serious threat to our society. Effective vaccines have now entered the market, but many patient populations were not included in the registration clinical trials. There is evidence that patients with celiac disease (CeD) have reduced effect of vaccines such as the hepatitis B vaccine. Here, we investigated the humoral response to COVID-19 vaccines (Chadox1, Corminaty og Spikevax) in patients with CeD and healthy controls.

Methods: Patients with biopsy-confirmed CeD diagnosis and already registered in a patient biobank at Oslo University Hospital (OUH) were invited to the study (n=1537). Samples were collected from 82 CeD patients and compared with samples from 253 healthy controls. Sera from healthy controls were obtained from the OUH-COVID-19 general biobank. Sera collected before and after full vaccination were analyzed for content of antibodies to the Spike protein from SARS-CoV-2 and the receptor-binding domain (RBD).

Results: Post vaccination analysis showed a large overlap of antibodies between CD and healthy controls. The CD patients group (CI 95% 5656 [4610, 6710]) and the healthy controls (CI 95% 4986, [4480, 5500]), had when compared p=0.22.

 DOI: 10.12890/2022_V9Sup1

Conclusions: The results show that the humoral response to COVID-19 vaccines in CD patients is similar to that observed in healthy controls. Thus, we could not observe any signs of possible immune deviation based on the HLA profiles (HLA-DQ2 and -DQ8) that are known to be associated with CeD.

1271 / #EV0541

ROLE OF IBD NURSE IN THE QUALITY OF CARE ON IBD PATIENTS

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Background and Aims: A specialized inflammatory bowel disease (IBD) nurse is considered a valuable and cost-effective member of a multidisciplinary team, not all clinics responsible for IBD care employ such nurses. We evaluated IBD nurse resources, quality of care and cost effects on IBD patients care in some centers in Albania.
Methods: A healthcare professional electronic survey was conducted in order to assess the impact of an IBD nurse on the quality of care. To study the cost effects, we obtained nationwide comprehensive data covering years between 2012 and 2020 from major administrative healthcare districts in Albania. Patients with a diagnosis of IBD (ICD-code K50 or K51) were identified from the data and their personal contacts and hospitalization were analyzed. The results were compared between healthcare districts with an IBD nurse and healthcare districts without an IBD nurse.
Results: 29 physicians and 44 nurses responded to the survey. Of the physicians, 92% reported that an established IBD nurse had released physician's resources. The most important IBD nurse contributions listed were patient support and follow-up (79-81% of the respondents). Healthcare district, which had an established IBD nurse, produced more patient contacts. A larger proportion of the contacts was managed by the IBD nurse. Clinics with an IBD nurse reported less patient hospitalization (6-9% vs 16-23%). Estimated annual cost savings while employing an IBD nurse may be significant, although we were not able to asses them.
Conclusions: Introduction of an IBD nurse leeds to better quality of care and potentially significant cost savings, reducing hospitalization, reallocating physician resources.

1339 / #EV0542

ERADICATION THERAPY FOR HELICOBACTER PYLORI AND THE ROLE OF PROBIOTICS

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Background and Aims: Eradication of *H. pylor*i requires antibiotic therapy. Indiscriminate use of antibiotics has led to the development of resistance. Patients' poor access to therapy and drug side effects are the main factors influencing the decline in *H. pylori* eradication rates.
Methods: The study included 136 outpatients, with complaints of epigastric pain and indigestion, who tested positive for *H. pylori* on histological examination of biopsy specimens taken under endoscopy. 71 patients were treated with classical tritherapy for two weeks; In another 65 patients, the classic eradication therapy was supplemented with the probiotics *Lactobacillus acidophilus*-LA-5®, *Bifidobacterium*-BB-12®, *Streptococcus thermophilus*-STY-31TM, *Lactobacillus delbrueckii subsp. bulgaricus*-LBY-27TM as a single capsule, 3 hours after antibiotics, during 2 weeks of antibiotic treatment. Patients were examined for the presence of H Pylori one month after the end of therapy, using antigen in the stool or by histopathological examination. Negative test results for H pylori were considered successful eradication.
Results: Out of 136 patients, 57 (41.91%) were female and 79 (58.09%) were male,mean age of 36.64±15.24. In the group of patients with standard therapy H. pylori was eradicated in 43 patients (60.56%). In the second group, where probiotics were added to standard therapy, eradication was confirmed in 45 patients (69.23%).
Conclusions: The addition of probiotics to classical *H.pylori* eradication therapy may reduce the side effects of therapeutic regimens as well as increase the success of *H.pylori* eradication. However, randomized studies with a larger number of patients are needed to confirm the success of probiotics in eradicating *H. Pylori*.

886 / #EV0543

ORIGINAL CLASSIFICATION OF HYPERAMMONEMIA

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Background and Aims: Two main types of hyperammonemia in clinical practice: hereditary hyperammonemia as the result of various genetic defects in the urea cycleenzymes; acquired hyperammonemia.
Methods: By the level of ammonia (in the capillary blood by the express method) Normal (physiological) level — up to 60 µmol/L:

 DOI: 10.12890/2022_V9Sup1

Results: Hyperammonemia: Mild (Grade 1) — up to 100 µmol/L; Moderate (Grade 2) — up to 200 µmol/L; Severe (Grade 3) — more than 200 µmol/L; By etiopathogenesis: Hereditary (congenital) Functional (physiological) Acquired (hepatic, extrahepatic, mixed) By clinical presentation: Transient Recurrent or persistent Constant (stable, without treatment) Covert .

Conclusions: Following causes of non-cirrhotic hyperammonemia have been identified: Increased ammonia production: Infections with urease producers: Proteusmirablis, Klebsiella species, *Escherichia coli*, *Morganella morganii*, *Providenciarettgeri*, *Corinobacteria* (causing agents of diphtheria), *Mycobacterium genavense*, Herpes simplex, and probably, *Helicobacter pylori* (a greater incidence of NAFLD in patients with helicobacteriosis); Hemato-oncological disorders: multiple myeloma, chemotherapy for acute leukemia, bone marrow transplantation, 5-fluorouracil; Organ transplantation; Protein load and increased catabolism: intensive physical exercise, seizures, long malnutrition or severe injury, general parenteral nutrition, gastrointestinal bleeding, steroid use; Bariatric surgery; Overworking, circadian rhythm disorders, work in the night shift without sufficient rest — sleep deprivation. Decreased ammonia production: Urethrosigmoidostomy; Portal systemic shunts, including congenital; Use of medicines: valproic acid, glycine, carbamazepine, ribavirin, sulfadiazine, pyrimethamine, and salicylates; Congenital metabolic defects: ornithine cycle disorders, defects in the β-oxidation of fatty acids and organic acids, impaired metabolism of pyruvate. Hyperammonemia may occur in women during pregnancy, and childbirth; itis associated with the impaired hydrolytic deamination in intensively working muscles, and with eclampsia.

718 / #EV0544

A NASTY "BENIGN" DISEASE – NECROTIZING PANCREATITIS

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Case Description: A 57-year-old female presented with abdominal pain radiating to the back, nausea and multiple episodes of vomiting and diarrhoea with no significant past medical history. On examination, she's tender in RUQ and epigastric region with guarding.

Clinical Hypothesis: The initial impression was pancreatitis. She also developed acute respiratory distress syndrome (ARDS) and non-occlusive splenic vein thrombosis (SVT) during her admssion.

Diagnostic Pathways: CT AP showed necrotizing pancreatitis (NP) with 14 cm peripancreatic fluid collection and SVT. She was treated with IV antibiotics, endoscopic cystogastrostomy, TPN, therapeutic Tinzaparin and other supportive measures.

Discussion and Learning Points: NP is a severe form of acute pancreatitis with high mortality and morbidity. The Revised Atlanta classification described different types of peripancreatic fluid collection depending on their constituents and time of formation. Close monitoring and prompt treatment are required as patients with NP are vulnerable to many complications such as ARDS and SVT. Sterile NP can be managed conservatively with aggressive IV fluid resuscitation and TPN with early restart of enteral nutrition. Should the collection becomes infected, minimally invasive techniques such as percutaneous drainage, minimally invasive surgeries, endoscopic cystogastrostomy and necrosectomy are favourable over open surgeries.The use of anticoagulation therapy in SVT associated with NP remains controversial as some studies suggest there are increased risk of bleeding and no significant difference in outcome.

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1191 / #EV0545

BOWEL OBSTRUCTION DUE TO SIGMOID VOLVULUS

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Case Description: A 69-year-old man with Alzheimer's dementia was admitted with aspiration pneumonitis. During hospitalization, the patient had just a single abundant stool dejection. In the following days there was no record of intestinal transit and there was a progressive abdominal distension with metallic noises and bloating.

Clinical Hypothesis: Considering clinical features and pathological background, bowel obstruction was the most likely diagnosis. Neoplasm, toxic megacolon or volvulus were investigated.

Diagnostic Pathways: Abdominal-pelvic computed tomography scan revealed a sigmoid distension that abruptly terminated near by the rectus-sigmoid transition and pneumatosis of the ascending colon. The total colonoscopy showed a sigmoid volvulus and endoscopic reduction was performed. Afterwards the intestinal transit was reinstituted.

Discussion and Learning Points: A volvulus is a torsion of a segment of the gastrointestinal tract, which can lead to intestinal obstruction. It is an uncommon cause of intestinal obstruction in adults, being more frequent in debilitated individuals with neuropsychiatric pathology, like Alzheimer's dementia. It often presents with insidious abdominal pain and distension, nausea and constipation. Abdominal radiography and/or abdominopelvic computerized tomography scan should be performed. Endoscopic treatment is successful in reduction in 75-95% of cases. If endoscopic reduction is ineffective, surgical resection should be performed. This case emphasizes the importance of physical examination and gastrointestinal transit in hospitalized patients, especially in those with neuropsychiatric pathology.

 DOI: 10.12890/2022_V9Sup1

1425 / #EV0546

ADENOPATHIES: A CONFUSING PRESENTATION OF PRIMARY BILIARY CHOLANGITIS

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Case Description: Primary biliary cholangitis (PBC) is an autoimmune pathology resulting from the destruction of intrahepatic bile ducts. It typically presents with chronic fatigue, pruritus, steatorrhea, and jaundice, with a variable course. A 65-year-old woman was evalluated due to suspicion of occult neoplasia. She presented with anorexia, significant weight loss and asthenia with 6 months of evolution associated with alterations in liver biology tests and evidence of intra and extrahepatic biliary tract dilatation as well as adenopathies in the inter-caval-port position and hepatoduodenal ligament (max 1.6 cm). She already had exhaustive research carried out that included several imaging studies and tumor markers.
Clinical Hypothesis: In the detailed evaluation, a symptom had been forgotten – intense itching that was difficult to control.
Diagnostic Pathways: The additional study allowed the diagnosis of PBC given strong positivity for antimitochondrial antibodies. The patients started treatment with complete resolution of symptoms of the adenopathies initially described.
Discussion and Learning Points: With this case, we demonstrate that PBC can be a difficult diagnosis, especially when not considered adenopathies with liver tests. According to the literature, those may be evident in 78 to 81% of patients in periportal location and in the gastrohepatic ligament. We retrospectively evaluated cases of PBC admitted to admission to our hospital from 2000 to 2019, where 48 patients were identified. Among these, 5 of the patients had adenopathies on imaging and in 3 cases the adenopathies resolved after the introduction of therapy. The authors intend to highlight this case, so that PBC is considered in a clinical context even in coexistence of adenopathies.

435 / #EV0547

"WHEN A COMMON DRUG HARMS TOO MUCH" A CASE OF HYDROCHLOROTHIAZIDE INDUCED REPEATED PANCREATITIS

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Case Description: 85-year-old woman, independent for daily life activities, with history of hypertension, dyslipidemia and acute pancreatitis in 2018 presented to the ER requiring hospitalization. Usual medication: valsartan + hydrochlorothiazide, omeprazol, alprazolam. Denied smoking and alcohol intake. She appealed to the emergency room after two episodes of vomiting and epigastric pain, without fever or diarrhea. Blood analysis showed leukocytosis, neutrophilia and elevated amylase (2720 U/L). Urgent abdominal ultrasound without evidence of gallstones.
Clinical Hypothesis: Acute pancreatitis.
Diagnostic Pathways: The abdominal computed tomography showed alteration of normal pancreatic density with increased volume, where intra and extra-pancreatic collections were found and aspects suggestive of associated mesenteric panniculitis, which confirmed the diagnosis of acute pancreatitis. After careful study of the pancreatitis etiology, discarding alcoholic habits, gallstones, anatomical defects, duodenal stricture, cancer, infections, ischemia, vasculitis and hyperlipidemia, all the usual medication was again revised as potential cause of pancreas toxicity. In the end, we concluded that the most likely agent would be hydrochlorothiazide, which was already part of the patient medication at the time of the first acute pancreatitis episode. After withdrawal of this diuretic, she completely recovered, without pancreatitis recurrence in a 6-month follow-up period.
Discussion and Learning Points: Cases of drug-induced acute pancreatitis are relatively rare and pathways of injury to the pancreas are not fully understood. The mechanism of hydrochlorothiazide-induced pancreatitis has been proposed to be due to direct ischemia, toxicity, and hypercalcemia. Although unusual, pharmacological causes of pancreatitis should be remembered, especially in low risk factors patients, aiming to reduce the length of the disease, to avoid complications and recurrences.

134 / #EV0548

A MISLEADING CASE OF COEXISTING HEPATIC HYDATID DISEASE AND PANCREATIC ADENOCARCINOMA

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Case Description: We report the case of 49-year-old man admitted for epigastric pain, vomiting and weight loss in the last month. His medical history was notable for a hydatid cyst of the right liver lobe, treated with three rounds of albendazole, showing signs of involution one month before. The ultrasound performed on admission identified, in addition to the hydatid cyst, several hepatic and adrenal gland lesions of different echogenity. A CT scan was ordered, which revealed multiple hypodense lesions, distributed throughout the liver parenchyma, suggestive of metastases. In addition, the stomach had thick walls and the cephalic region of the pancreas was increased in size, homogeneous, and poorly delimited from the duodenum. The superior endoscopy showed a stenotic antral ulcer with malignant features. Over the next days, the patient developed intestinal obstruction; during surgery, multiple abdominal adherences were found and because of the advanced stage of the neoplasia no intraoperative solution was found. The histopathological exam was consistent with pancreatic adenocarcinoma. After the surgery, the patient developed acute hepatic failure and he subsequently died five days later.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: After the initial evaluation, two possible diagnoses were taken into account: a relapse of the parasitic disease, this time into a multivisceral form, or a digestive cancer with hepatic metastases.
Diagnostic Pathways: The CT scan was decisive in guiding the diagnosis, which was confirmed through the biopsies taken from the ulcer and the hepatic lesions.
Discussion and Learning Points: Being a versatile disease, hepatc echinococcosis can raise some serious diagnostic challenges, especially when it coexists with a malignant tumor.

2323 / #EV0549

INCREASING MORTALITY AND MORBIDITY DUE TO CONSTIPATION ASSOCIATED WITH CLOZAPINE

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Case Description: A 51-year-old man with a history of schizoaffective disorder on clozapine for over 7 years was brought to the emergency department with severe abdominal distention and lower extremity edema that started two weeks ago. CT abdomen showed severe fecal retention throughout the colon with stercoral colitis along with right ureteral hydronephrosis. Fecal retention was relieved by digital disimpaction and enemas.
Clinical Hypothesis: Clozapine has multiple life-threatening side effects, however, constipation associated with clozapine is a frequently overlooked side effect that has resulted in fatal complications. The authors review the literature on clozapine associated with constipation and its adverse effects.
Diagnostic Pathways: The differential diagnosis for severe constipation considered for this report included constipation secondary to schizophrenia, medication side effects, irritable bowel syndrome (IBS), colonic strictures or psychogenic causes. Clozapine associated constipation diagnosis was made by diagnosis of exclusion when the patient did not meet the criterias for constipation due to IBS, colonic strictures or psychogenic constipation.
Discussion and Learning Points: Clozapine is known to have peripheral muscarinic anticholinergic properties that affect the M3 receptors in the gastrointestinal tract. This anticholinergic activity of clozapine inhibits the normal innervation of gut peristalsis resulting in hypomotile gut. The recent rise in cases of constipation due to clozapine makes it crucial to further study the anticholinergic properties of clozapine and for clinicians to be aware of the potentially fatal complications of constipation induced by clozapine. The discussion outlines potential screening and preventive measures that can be taken for management of constipation associated with clozapine, such as lifestyle modifications, daily logs, GASS-C tool.

1985 / #EV0550

A FEMALE MIDDLE-AGED PATIENT WITH JAUNDICE: WHAT ARE THE ODDS?

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Case Description: A 56 year-old woman, with no prior medical history and no alcohol intake, was admitted to our Clinic due to new onset of jaundice, pruritus and fatigue, after she received a prescription of amoxicillin-clavulanate for otitis media 7 days before.
Clinical Hypothesis: Jaundice is a common sign of liver failure. Its differential diagnosis includes hepatocellular damage, obstructive/hemolytic causes, disorders of bilirubin uptake or excretion, as well as drug hepatotoxicity [Drug-Induced acute Liver Injury (DILI)]- nearly all classes of medications can cause liver disease. Herein, we present an interesting case of antibiotic-induced severe intrahepatic cholestasis.
Diagnostic Pathways: The patient was febrile with a palpable liver. Blood chemistry revealed both AST/ALT over 350 U/L, ALP and γGT over 250 U/L, total bilirubin (Tbil) initially 6.0 mg/dL, INR=1.3 with normal platelet count, eosinophils and serum albumin. Hemoglobin, WBC and inflammation markers were also normal. HAV,HBV, HCV, HIV, CMV, HSV as well as ANA, AMA, ASMA, anti-LKM-1 Abs were also negative. A significant increase in Tbil over 30 mg/dl was noted in the next few days. Abdominal ultrasonography, MRI/MRCP were performed without any findings. Liver biopsy revealed drug-associated mixed-type cholestasis. There was a gradual slow decline of bilirubin values after the withdrawal of the antibiotic treatment.
Discussion and Learning Points: DILI may range in severity from mild elevations in liver enzymes to severe acute liver failure resulting in death or liver transplantation. Amoxicillin-clavulanate is the most common cause of DILI with an immunoallergic mechanism of liver damage. New onset drugs should always be considered in the differential diagnosis of DILI.

 DOI: 10.12890/2022_V9Sup1

1938 / #EV0551

ACUTE LIVER INJURY - A BRAIN TEASER

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Case Description: A 52-year-old woman with severe acute pain, related to recent trauma to the right foot, self-medicated with high doses of paracetamol (10 g in 24 h). She presented in the emergency room with diarrhea, fever and pain in the right hypochondrium. Analytically, of notice she had acute liver dysfunction (AST 13881 U/L, ALT 5287 U/L, FA 239 U/L, GGT 229 U/L, hyperbilirubinemia, INR 1.9, albumin 3.4 mg/dL), with normal kidney function, negative C-reactive protein (CRP) and negative acetaminophen assay. She had no other usual medication but consumed "Herbal Fasting", a slimming tea bought online. No recent travels, no other context.

Clinical Hypothesis: Paracetamol induced acute liver injury, or viral etiology. Other possible hypothesis included vascular, infiltrative or autoimmune diseases.

Diagnostic Pathways: Considering the most likely clinical hypothesis, patient started acetylcysteine infusion and acyclovir. From the diagnostic workup: negative liver serologies, negative HIV, HCV, HAV and HEV serologies; negative autoimmune liver study. Hepatic vessel thrombosis was excluded and a transjugular liver biopsy showed mildly elevated sinusoidal portal hypertension, framed in the context of acute hepatitis. The patient was referred for liver transplantation.

Discussion and Learning Points: The patient completed 5 days of acetylcysteine (NAC) infusion with progressive recovery of liver function persisting only mild cytocholestasis. NAC has been demonstrated to be effective for acetaminophen overdose outside of 8 hours post-ingestion, especially in patients with progressive acute liver failure (ALF) or with complications secondary to ALF. NAC has also been proven effective in ALF due to other causes. In ALF without clear etiology, acetaminophen overdose should always be suspected, even in the presence of undetectable levels of the drug.

1458 / #EV0552

CHRONIC DIARRHEA: WHICH ANTIHYPERTENSIVE DO YOU TAKE?

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Case Description: 70-year-old woman, independent, with hypertension, medicated for more than a decade with olmesartan presented with weight loss and multiple episodes of diarrhea with months of duration, one of which motivated intensive care due to severe metabolic acidosis.

Clinical Hypothesis: The differential diagnosis for this kind of clinical and pathological features include celiac disease, autoimmune enteropathy, inflammatory bowel disease, and drug induced enteropathy. Other conditions which need to be excluded include infections disorders such as C. difficile colitis. A careful medication history is important as certain medications are known to cause enteropathies.

Diagnostic Pathways: There was no evidence of infection, with sterile cultures of feces, blood and urine. Negative anti-transglutaminase. Endoscopy without macroscopic findings. A complet workup and review of medications was made to study this case of chronic diarrhea, with negative results for all most known conditions. The fact that there was no recorrence of symptoms for more than two years of follow-up after the suspension of olmesartan led us to believe that this was a case of olmesartan-induced enteropathy. We recognized the lack of an histological result.

Discussion and Learning Points: Olmesartan is a recent inclusion to the class of medications causing drug-induced enteropathy. Is usually well tolerated except for minor side effects. Clinical manifestations include chronic diarrhea, weight loss and malabsorption. Electrolyte abnormalities can be present. Symptoms may be very severe and life-threatening. Duodenal biopsies show villous atrophy. A latency time of 6–120 months has been described. Olmesartan-induced enteropathy is associated with quick mucosal recovery, thus supporting its reversibility and the importance of making the diagnosis.

52 / #EV0553

RARE DIGESTIVE CAUSE OF ANEMIA

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Case Description: Male of 82 years old studied because of constitutional syndrome and hepatosplenomegaly.

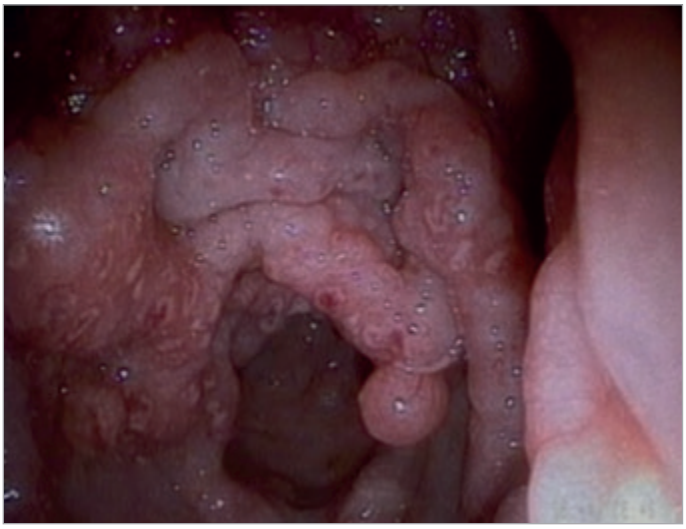
Clinical Hypothesis: The most probable diagnosis was a lymphoma.

Diagnostic Pathways: Blood test findings were: iron deficiency anemia, leukocytosis at the expense of mature lymphocytes, elevated β2microglobulin. The inmunophenotype was compatible with low-grade marginal zone lymphoma, involving the mucosa-associated lymphoid tissue (MALT). Colonoscopy was performed till mid rectum because of collapse of the lumen by translucent, polypoid lesions (Figure 1). Gastroscopy showed edematous folds, decreased compliance, and erosions. Computed tomography showed splenomegaly (16 cm) with pathological abdominopelvic adenopathies, diffuse thickening of gastric wall. Endoscopic biopsies were consistent with mantle cell lymphoma. The B lymphoproliferative syndrome was confirmed in peripheral

 DOI: 10.12890/2022_V9Sup1

blood and bone marrow (b.m.). Although there was a discrepancy between the biopsies and the blood, it was considered MALT with extranodal involvement.

Discussion and Learning Points: MALT lymphoma is usually located in stomach, but, as in this case, it can infiltrate other parts of the digestive tract, eyes, lungs, thyroid, breast, skin, and soft tissues. If there is digestive involvement, it is usually expressed by reflux, epigastric pain, anorexia, weight loss, hidden gastrointestinal bleeding. It can spread, as in our case, to lymphoid tissue or bone narrow, being considered a late event. It generally does not affect peripheral blood, although it does in our patient. Large biopsies are important because the submucosa is often involved but not the mucosa. The treatment of MALT consists on eradicating *Helicobacter pylori*. If it persists or is in an advanced stage, radiotherapy must be combined with chemotherapy and rituximab.



#EV0553 Figure 1.

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STRANGE CAUSE OF EPIGASTRIC PAIN

Marta Muñiz Muñoz[1], Pablo Segovia-Alonso[1], Rosanna Villanueva Hernández[1], María Pilar Delgado Álvarez[1], María Antonia Gonzálo[2], Juan Manuel Blanco[2], Francisco Díaz[2], José Manuel Hernández[2]

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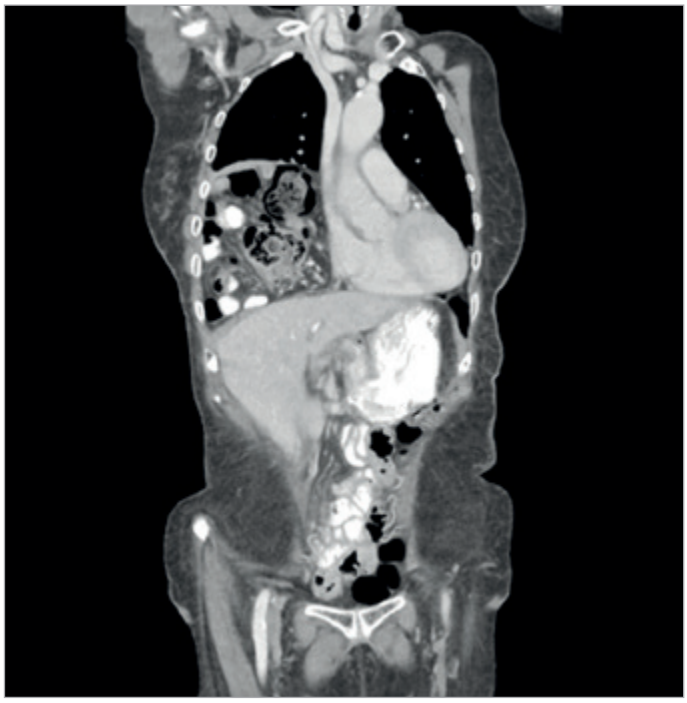
Case Description: Woman of 87 years old with personal history of colon neoplasm treated with low anterior resection, who stars 24 hours ago with epigastric pain that goes to the armpits, nausea and vomiting. At physical exploration: epigastric pain at palpation, remainder was normal.

Clinical Hypothesis: The most probable diagnosis was heart attack, bowel obstruction, pancreatitis.

Diagnostic Pathways: Blood test without alterations. Electrocardiogram showed sinus arrhytmia and left anterior hemiblock. Chest X-ray showed colon in right hemithorax and elevation of the anterior pillar of the right hemidiaphragm. Ultrasound and computed tomography (CT) showed a Morgagni's hernia (Figure 1). An echocardiogram suggested that the hernia implied compression of the right cardiac chambers.

Discussion and Learning Points: Morgagni's hernia is a rare type of diaphragmatic hernia, generally it is asymptomatic and the diagnosis is incidental. It occurs from a defect between the rib's and breastbone's attachments of the diaphragm. It is usually located in the right side and it can contain the tranverse colon (as in our patient), liver, omentum, and, rarely, small bowel or stomach. When there are symptoms, as in our case, they usually appear when there is organ commitment producing dyspnoea, nausea, vomiting, anorexia, dysphagia, abdominal distension. The diagnosis can be confirmed by X-Ray, barium study, CT and magnetic resonance. Surgery is indicated in all cases, taking into account the risk of complications.



#EV0554 Figure 1.

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CHRONIC PELVIC PAIN: AN UNCOMMON CAUSE

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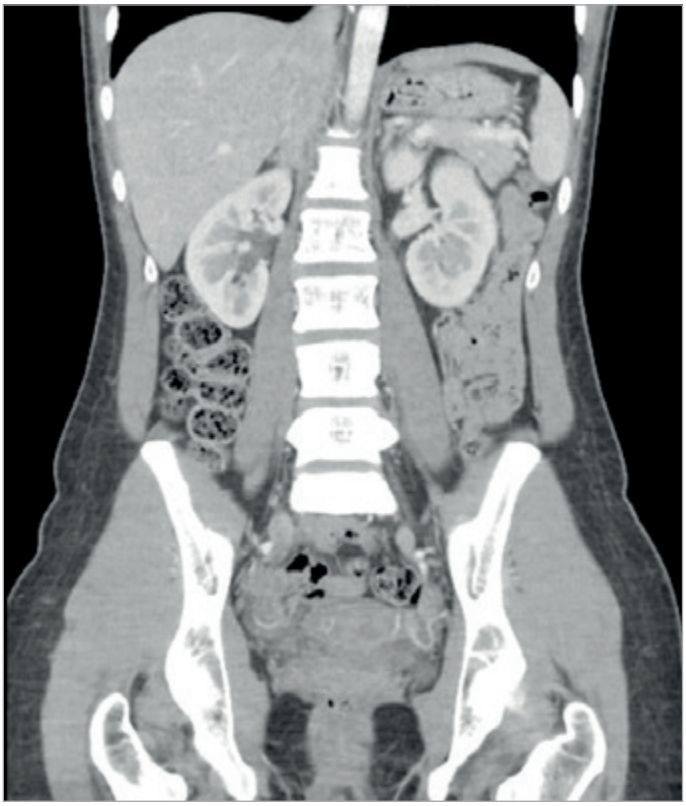
Case Description: A 32-year-old woman related two months severe stabbing pain in the right iliac fossa and in the left sacroiliac joint radiated to the leg, associating constipation, weight loss and abdominal distension.

Clinical Hypothesis: The first suspicion was colorectal cancer followed by gynaecological cancer.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: Abdominal ultrasound, blood test, colonoscopy and gynaecological examination and ultrasound were normal. Abdominopelvic computed tomography (CT) showed an important dilatation of the left ovaric vein with reflux, with important dilatation of the periovaric and periuterus plexus in the left pelvis, and backward flow in right ovaric vein (Figure 1), suggesting pelvic congestion syndrome.

Discussion and Learning Points: In the differential diagnosis of abdominal pain, digestive and no digestive aetiology must be considered. The pathophisiology of pelvic congestion syndrome is unclear but is believed to result from a combination of dysfunctional venous valves, retrograde blood flow, venous hypertension, and dilatation. It typically affects multiparous women of childbearing age with hypogastric or pelvic pain during more than 6 months, exacerbated by standing, coitus, menstruation and pregnancy. It is usually associated with headache, a feeling of abdominal distension, nausea, low back pain, rectal discomfort, urinary urgency, lethargy and depression. It can be diagnosed by ultrasound (abdominal and transvaginal), CT and venography. Venography is considered the gold standard test. Often an exploratory laparoscopy is done because no cause is found for the pain, but when performed in supine, pelvic various veins are not visualized. The treatment is acetate of medroxyprogesterone or goserelina, and if it fails embolization can be done.



#EV0555 Figure 1.

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POSTRADIATION PROCTITIS: TREATMENT AND COMPLICATIONS

Marta Muñiz Muñoz[1], Pablo Segovia-Alonso[1], Rosanna Villanueva Hernández[1], María Pilar Delgado Álvarez[1], María Antonia Gonzálo[2], Juan Manuel Blanco[2], Francisco Díaz[2], José Manuel Hernández[2]

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Case Description:

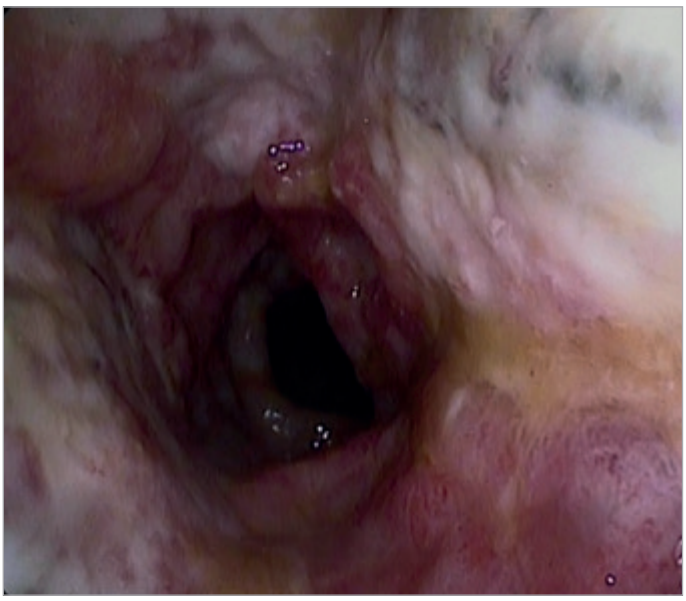
A 65-year-old man with prostate adenocarcinoma treated with brachytherapy who ask for assistance because of rectal bleeding and severe pain when defecating. The colonoscopy was compatible with postradiation proctitis. Treatment with mesalazine suppositories was started without improvement, so radiofrequency was performed. Fifteen days after the radiofrequency session, the patient presented anal pain, rectal urgency, constipation, presenting small stools with fresh blood. Treatment with laxatives was started without clear improvement, so a new rectoscopy was performed showing a deep circumferential ulceration from lower rectum to anus (Figure 1). Despite various analgesics and oral mesalazine, pain was not controlled, so a new rectoscopy was performed: circumferencial anorectal ulcer with endoscopic improvement compared to previous exploration. The patient got better after a month with minor opioids.

Clinical Hypothesis: Response and complications on postradiation proctitis's treatment.

Diagnostic Pathways: Endoscopy is mandatory to diagnose postradiation proctitis, and it can help in the treatment.

Discussion and Learning Points: Postradiation chronic proctitis appears in up to 20% of patients undergoing pelvic radiation. Medical treatment with sucralfate enemas, glucocorticoids or mesalazine has little result, as in our patient. Endoscopic treatment with argon plasma coagulation (APC) is an option, but with high complication rate (47%), with potential tissue damage leading to ulcerations, perforation and fistulas. Radiofrequency is as effective as APC, achieving that almost no patient need transfusions or iron treatment, and with fewer and less serious adverse effects. Even so, our case is an example that postradiation proctitis is a disease with ineffective treatment and with limiting adverse effects on the quality of life of patients.

DOI: 10.12890/2022_V9Sup1



#EV0556 Figure 1.

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A RARE ETIOLOGY OF ABDOMINAL PAIN

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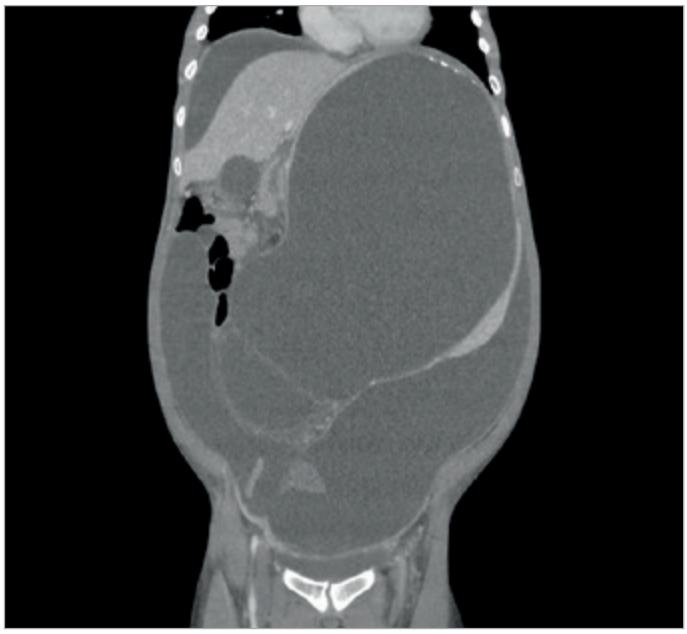
Case Description: A 31-years-old woman reported 3 weeks of diarrhea, abdominal pain and marked increase in abdominal girth.
Clinical Hypothesis: The first suspicion was colorectal cancer and chronic liver disease.
Diagnostic Pathways: An ultrasound showed a large cystic mass with content inside, located in the epi-mesogastrium, measuring 20cm. In blood test there was an increase in Ca 19.9. An abdominal computed tomography (CT) described a complicated splenic cyst (Figure 1). An urgent laparotomy was performed with aspiration of 14 liters of chocolate content, and subsequent en bloc excision of the cyst and the spleen. After its removal, the patient remains asymptomatic with normal tumor markers.
Discussion and Learning Points: Splenic cysts are a rare but benign entity. They are classified as primary, with lining epithelium, and secondary, which usually occurs after trauma and infection. Usually they are asymptomatic, but can produce pain in epigastrium or in left hypochondrium as in our patient. In ultrasound study (diagnostic technique of choice), splenic cysts show abscense of echoes, may present calcification and lack flow in Doppler. CT is performed only if there is doubt about the content or anatomical location. The size of the cyst is highly variable, and can reach 20 cm. The lining epithelium can synthesize Ca 19.9, not being specific, although it allows to ensure healing after treatment, as in our case. Surgery is indicated in case of large size or complication. Partial decapsulation is an adequate treatment, as it preserves splenic function with a low recurrence rate. Total splenectomy is the procedure of choice for large lesions, involving the splenic hilum.



#EV0557 Figure 1.

667 / #EV0558

A YOUNG MEDICAL ATTENDANT PRESENTING WITH NON-PALPABLE PURPURA AND FEVER: DISCOVERING THE UNEXPECTED

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Case Description: A 29-year-old Greek medical attendant, with unremarkable prior history, was admitted to our Clinic due to abdominal pain, fever up to 38.5° C and lower extremity rash for the last month. Fresh fruit and vegetables were excluded from her diet, since they were thought to deteriotate her abdominal discomfort.
Clinical Hypothesis: Herein, we present an interesting case of scurvy due to abdominal tuberculosis (TB) presenting with fever, abdominal distention and rash.
Diagnostic Pathways: The patient was febrile with diffuse abdominal tenderness and non-palpable perifollicular purpura of both her legs. Blood chemistry showed elevated inflammation markers, normocytic anemia and very low vitamin C levels (<0.5 mg/l). She was treated immediately po and underwent endoscopies with no findings. Full-body CTs revealed ascites and edema of the mesentery. Skin tuberculin test was measured 23 mm. She underwent exploratory laparotomy, where multiple extensive adhesions were detected. The histopathological analysis showed epithelioid cell granulomas with central caseous necrosis

 DOI: 10.12890/2022_V9Sup1

with positive tissue culture for *M. tuberculosis* after 8 weeks of incubation. The patient was already treated with rifampicin/isoniazid, ethambutol and pyrazinamide. She showed rapid clinical response and was soon discharged with close follow-up.
Discussion and Learning Points: Abdominal TB and granulomatous TB peritonitis are indeed rare entities, difficult to diagnose, as they mimic many abdominal diseases. Scurvy is characterized by deficiency of vitamin C. They both should be considered in high risk patient groups, since cases may be easily missed due to non-specific initial symptoms, and if left untreated, they are potentially lethal.

2608 / #EV0559

GOLIMUMAB INDUCED PANCREATITIS IN A PATIENT WITH ANKYLOSING SPONDYLITIS

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Case Description: A 74-year-old woman suffering from ankylosing spondylitis treated with golimumab since 2019, medical history of diabetes and hypothyroidism. The patient presented with abdominal pain radiating to the back. Upon admission blood pressure 160/70 mmHg, heart rate 114 BPM. Physical examination demonstrated mild epigastric tenderness with no jaundice
Clinical Hypothesis: Drug induced pancreatitis.
Diagnostic Pathways: Lab tests: Lipase 2078 U/L, amylase 397 U/L, AST 238 U/L, ALT 436 U/L, GGT 303 U/L, ALP 249 U/L, CRP 8 mg/dl, Calcium 9.6 mg/dl, triglycerides 154 mg/dL. Abdominal US demonstrated: fatty liver, minimal thickening of gallbladder wall without signs of inflammation stones or sludge. Abdominal CT demonstrated normal pancreases morphology no signs of bile duct dilation, no sign of fat stranding. MRCP: fatty pancreas, normal biliary tree, no signs of inflammation or sludge. The patient was diagnosed with non-biliary pancreatitis, treated conservatively with IV fluids and NPO, with gradual clinical and laboratory markers improvement. Since alcohol abuse, drugs and toxin use, hypertriglyceridemia, hypercalcemia, or bile duct pathology, were ruled out, we concluded that the patient has drug induced pancreatitis due to Golimumab.
Discussion and Learning Points: AP is a common gastrointestinal cause for hospitalization, the minority of cases are drug induced, AP could have a fatal outcome. There are reports of Infliximab and etanercept related pancreatitis, and cases of Adalimumab-related hypertriglyceridemia causing pancreatitis, here we report a case of golimumab induced AP after excluding other etiologies. It's yet to be revealed whether Anti-TNF therapy induced pancreatitis due to is a class effect or a specific side effect of golimumab. Clinicians should be aware of this possible side effect of anti-TNF therapies.

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POST-ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY PANCREATITS – THE REALITY OF A PORTUGUESE HOSPITAL.

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Background and Aims: Acute pancreatitis (AP) is the most common serious complication of endoscopic retrograde cholangiopancreatography (ERCP). Our aim is to study post-ERCP AP hospitalizations in an Internal Medicine Department of a Portuguese Hospital.
Methods: Retrospective study of post-ERCP AP admissions between 2012 and 2021. Diagnosis was based on the presence of at least 2 of 3 criteria (clinical, analytical or imaging).
Results: There were 12 episodes of post-ERCP AP. The average age was 58 [31-77] years old with no-gender predominance. The average length of stay was 11.8 days [2-40]. The most common symptoms were abdominal pain (100%), nausea (41.7%), vomiting (41.7%) and fever (33.3%). On admission, 66.7% of patients had serum amylase elevation of greater than three times the upper limit of normal. 83.3% of patients underwent abdominal ultrasound or CT scan and all had imaging criteria for AP. According to Atlanta criteria for severity, we had 9 mild (75%), 2 moderate (16.7) and 1 severe (8.33%) cases. One patient (9.1%) was admitted to the ICU. We registered no deaths (0).
Conclusions: In this study, about three-quarter of patients with post-ERCP PA had mild disease and a quarter moderate or severe disease. We registered no deaths. The severity in this study appears to be lower compared to the current literature.

1046 / #EV0561

ACALCULOUS ACUTE PANCREATITIS – THE REALITY OF A PORTUGUESE HOSPITAL

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Background and Aims: Acute pancreatitis (AP) is a complex disease that varies in severity and outcome. Prompt diagnosis and stratification of severity influence proper treatment. Our aim is to study acalculous AP hospitalizations in an Internal Medicine Department of a Portuguese Hospital.
Methods: Retrospective study of acalculous acute pancreatitis admissions between 2012 and 2021. The diagnosis of AP was based on the presence of at least 2 of 3 criteria (clinical, analytical or imaging). Results: There were 167 episodes of acalculous AP. The average age was 56 [15-95] years old with no-gender predominance. The average length of stay was 7,1 days. The most common symptoms were abdominal pain (98.8%), nausea (52.7%), vomiting (37.1%) and fever (10.2%). On admission, 47.3% of the patients had

 DOI: 10.12890/2022_V9Sup1

serum amylase elevation of greater than three times the upper limit of normal. 61.1% and 89.2% of the patients performed abdominal ultrasound and CT scan, respectively. 47,3% of acalculous AP were idiopathic. The causes identified were: alcohol (15.6%), drug reaction (10.8%), post procedure (9,0%), anatomical changes (8.4%), hypertriglyceridemia (6.0%) and autoimmune (1.8%). There was one case associated to *Ascaris Lumbricoides* infection. BISAP score was >2 in 7,2% of the patients. 25 patients (15.0%) were admitted to the ICU. We registered 5 deaths (3.0%).
Conclusions: Acute pancreatitis is one of the leading causes of hospital admission from gastrointestinal diseases. The most frequent cause of acalculous AP in our cohort was alcohol, as in the current literature.

223 / #EV0562

OLMESARTAN ASSOCIATED ENTEROPATHY: A RARE UNDERDIAGNOSED CAUSE OF DIARRHEA AND WEIGHT LOSS

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Case Description: 69-year-old female presented with chronic diarrhea and significant weight loss in a 6 month period. She complained of 3-5 watery bowel movements a day. No blood or mucus were observed in stool. She was under olmesartan therapy for idiopathic hypertension. She had undergone extensive outpatient workup including endoscopies of upper and lower gastrointestinal tract and MRCP. All investigative examinations were without significant findings. Physical examination, blood tests, Erythrocyte sedimentation rate, fecal occult blood test were found normal, stool cultures, parasitological exams were negative. Repeat endoscopies were performed including biopsies with no diagnostic findings. Olmesartan was then temporarily discontinued on suspicion of drug induced enteropathy and further follow up was scheduled.
Clinical Hypothesis: Olmesartan-induced enteropathy presents with diarrhea, nausea and weight loss. It often mimics celiac disease clinically and pathologically. It is important to consider the entity in the differential diagnosis of sprue-like enteropathy as replacing olmesartan with an alternate antihypertensive drug leads to rapid clinical and histologic improvement.
Diagnostic Pathways: Days after olmesartan cessation the watery stool subsided and the patient was able to return to her normal lifestyle. Two months later she was restarted on another formulation of olmesartan by her cardiologist and the symptoms relapsed within days. A diagnosis of olmesartan associated enteropathy was made using well established diagnostic algorithms.
Discussion and Learning Points: A well described adverse effect of a commonly prescribed medication can pose significant diagnostic challenges in the clinical practice. Failure to timely recognize olmesartan-induced enteropathy may result in gastrointestinal tract damage, quality of life disrupting symptoms and unnecessary testing.

768 / #EV0563

HEPATOPATHY, THE CHALLENGE OF INTERNAL MEDICINE

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Case Description: The etiology of liver injury is a clinical challenge. There are several drugs, herbal and dietary supplements with hepatotoxic potential.In addition, there is a wide variety of clinical phenotypes and a lack of specific biomarkers to identify them.
Clinical Hypothesis: 51-year-old man with a history of esophagitis and no previous chronic medication was referred to the emergency service for fever,predominantly in the afternoon,nocturnal hypersudorrhea,weight loss of 12%,sporadic dry cough and epigastralgia with 1.5 months of evolution.He reported self-medicating with non-steroidal anti-inflammatory drugs (NSAIDs) at least 3 days a week for the past 1.5 months.In observation it is noted pain on deep palpation of the right hypochondrium.
Diagnostic Pathways: Analytically: microcytic, normochromic anemia, leukocytosis, PCR (9.30 mg/dL), thrombocytosis, GGT 303UI/L and Alkaline Phosphatase 281 UI/L, INR 1.2; aPTT 14.4 sec. Abdominal ultrasound revealed diffusely heterogeneous liver parenchyma, extensive thrombosis of the portal vein with cavernous appearance involving the trunk and intrahepatic branches. Viral and bacterial causes were excluded and proved negative. A liver biopsy was performed and suggested drug-induced hepatitis,not ruling out autoimmune hepatitis. Despite the unlikely clinical picture of autoimmune hepatitis, its existence was analytically excluded. Finally, toxic hepatitis iatrogenic to the use of NSAIDs was assumed. On admission, the patient was initially subfebrile; during the rest of the hospital stay, remained apyrexic and had no complaints suggestive of target organ damage. Liver function normalized after 1 month.
Discussion and Learning Points: NSAIDs are among the most widely used drugs in the world,especially as self-medication. Thus, it is important to remember the numerous side effects that they are associated, particularly at hepatic level,being responsible for about 10% of cases of toxic hepatitis.

2305 / #EV0564

HEPATITIS E – AN INCREASINGLY COMMON RARITY

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Case Description: A previously healthy 55-year-old man was admitted to the emergency department with asthenia, choluria, jaundice and pruritus with 2 weeks of evolution. He reported

 DOI: 10.12890/2022_V9Sup1

drinking water from uncontrolled source and eating undercooked meat. He denied medication or drug use, excessive alcohol intake, blood transfusions, tattoos or recent travel. Physical examination at admission revealed subfebrile temperature, jaudice and pain in the epigastric region.

Clinical Hypothesis: Hepatitis of infectious, autoimmune or toxic etiology; pancreatitis; cholangitis.

Diagnostic Pathways: Physical examination at admission revealed subfebrile temperature, jaudice and pain in the epigastric region. He had elevated aminotransferases with ALT of 1931 IU/L (45 ULN) and AST of 1452 IU/L (34 ULN), alkaline phosphatase of 452 IU/L, gamma-GT of 746.3 IU/L, total bilirubin of 7.6 mg/dl and conjugated bilirubin of 5.04 mg/dl with normal prothrombin time and albumin. Abdominal ultrasound excluded hepatobiliary abnormalities. Antibodies IgM and IgG to hepatitis E virus were detected in blood. During hospitalization, clinical and laboratory improvement was observed.

Discussion and Learning Points: Hepatitis is characterized by inflammation and alteration of the hepatocyte and can be caused by infections, toxic agents, autoimmune or metabolic diseases, neoplasms or vascular diseases. The impact of viral hepatitis in increasing on today's societies. Hepatitis E virus (HEV) is mostly transmitted zoonotically and is one of the most overlooked etiologies in the differential diagnosis of acute hepatitis. Hepatitis E should therefore be considered in the differential diagnosis of acute hepatitis with no obvious cause.

122 / #EV0565

ASSESSMENT OF LIVER STIFFNESS USING TRANSIENT ELASTOGRAPHY IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA: AN OBSERVATIONAL STUDY

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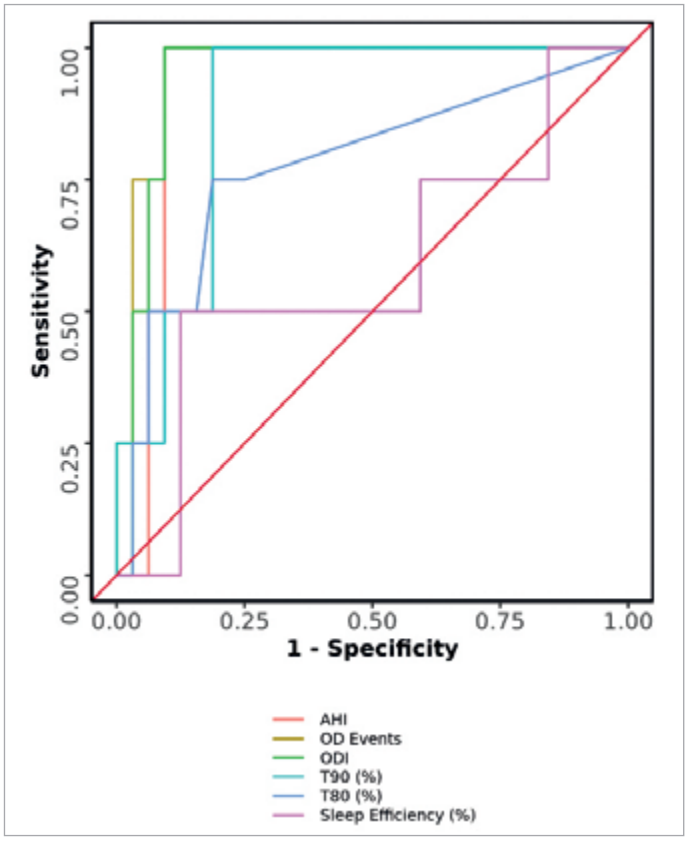
Background and Aims: Recent clinical data have shown that obstructive sleep apnea (OSA), through its hypoxia related consequences leads to tissue hypoxia, thereby resulting in oxidative stress, inflammation, and sympathetic system activation, and could therefore be an independent risk factor for non-alcoholic fatty liver disease and steatohepatitis. The primary aim of this observational study is to study the effect of OSA on the degree of liver stiffness, estimated using transient elastography, a novel technique to assess liver fibrosis.

Methods: The study was conducted on outpatients and inpatients of a tertiary care center who are polysomnography (PSG) proven OSA patients and meet the eligibility criteria. Patients were enrolled to undergo transient elastography (fibroscan) and the following investigations – complete hemogram, liver function tests, serum lipid profile, serum fasting insulin and fasting blood sugar levels. The polysomnography, fibroscan and laboratory data was tabulated and analysed.

Results: A total of 36 participants were enrolled. 4 (11.1%) participants had mild OSA, 11 (30.6%) moderate OSA and 21 (58.3%) of the participants had severe OSA. The prevalence of liver steatosis was assessed to be 83.3% (30 patients) while hepatic fibrosis was noted in 11.2% (4 patients). Oxygen desaturation events, oxygen desaturation index, apnea-hypopnea index and percentage of sleep time spent below 90% oxygen saturation (T90) were significant predictors of hepatic fibrosis (Figure 1).

Conclusions: Patients with OSA have an increased risk for development of hepatic steatosis and fibrosis. The various PSG parameters can be helpful in predicting the presence of underlying liver disease and aid in screening.



#EV0565 Figure 1.

 DOI: 10.12890/2022_V9Sup1

844 / #EV0566

HEPATOCELLULAR CARCINOMA - AN UNLIKELY DIAGNOSIS

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Case Description: Hepatocellular carcinoma (HCC) is a primary malignancy of the liver usually diagnosed in patients with chronic liver disease such as cirrhosis, chronic viral hepatitis, metabolic liver disease, particularly non-alcoholic steatohepatitis (NASH) and exposure to dietary toxins. Up to 25% of the cases, however, have no prior history of liver disease. Alfa-fetoprotein (AFP) is elevated in about 70% of the cases of HCC and the level of elevation correlates inversely with prognosis. We present the case of a male patient, aged 86 years-old, with hypertension and diabetes who presented at the hospital complaining of melenas, asthenia and pallor for the last 5 days. Additionally, for the last 2 months he had anorexia and periods of diarrhea alternating with obstipation. Denied any other symptoms and frequent alcoholic intake. On physical examination he presented jaudiced and with hepatomegaly, no other abnormal findings.
Clinical Hypothesis: Hepatitis; pancreatic mass; HCC
Diagnostic Pathways: Laboratory tests showed severe ferropenic anemia and cytocholestasis. The abdominal ultrasound revealed hepatomegaly with numerous nodular lesions. AFP levels where 0.91 ng/mL. The endoscopic study showed forrest III gastric ulcers. Abdominal CT scan revealed countless hypervascularized hepatic nodules suggestive of multifocal HCC. Hepatic biopsy confirmed HCC with pseudo-acinar pattern.
Discussion and Learning Points: This case shows that even though the vast majority of HCC cases derive from patients with previous chronic liver disease and that the use of AFP is helpful in monitoring high risk patients, we should consider the diagnosis even without the risk factors as 25% have no prior liver disease.

820 / #EV0567

SEVERE ALCOHOLIC HEPATITIS. LACK OF EFFECT OF CORTICOSTEROIDS ON IL-8 AND MALONDIALDEHYDE LEVELS

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Background and Aims: Severe alcoholic hepatitis (sAH) is one of the most serious complications of alcoholic liver disease. Pathogenesis includes cytokine release and lipid peroxidation. Treatment is based on corticosteroids, but their effect is controversial. The aim of this study is to analyze the effect of corticosteroids in levels of inflammatory cytokines and lipid peroxidation.
Methods: 38 patients with sAH (Maddrey ≥32) were included. All receive corticosteroids from admission (prednisone 40 mg daily). Cytokines (IL-4, IL-6, IL-8 and TNFα), as well as malonylaldehyde (MDA), were determined at admission, 24 hours and after one week. Fifteen healthy controls were included.
Results: The initial levels of cytokines were very high with respect to healthy controls: IL-4 ($p=0.049$), IL-6 ($p=0.014$), IL-8 ($p<0.001$) and TNFα ($p=0.094$). MDA was also higher ($p<0.001$). After 24 hours, the levels decreased for IL-4 ($p=0.013$) and TNFα ($p=0.001$). IL-6 was similar to healthy controls. IL-8 was higher in patients ($p<0.001$) as well as MDA ($p<0.001$). After one week, IL-4 and TNFα were practically undetectable in patients treated with corticosteroids. IL-8 was increased as well MDA ($p<0.001$ for all).
Conclusions: Corticosteroids in sAH had an intense and rapid effect on most inflammatory cytokines, reducing them to almost imperceptible levels. IL-8, as well as one of the main products of lipid peroxidation, MDA, escaped this effect. IL-8 mediates the neutrophilic infiltration typical of this disease. MDA levels have prognostic value, as has been shown in previous studies. Both results are consistent with the results of the STOPAH clinical trial, which found no benefit in corticosteroid treatment.

2209 / #EV0568

SEVERE GASTROESOPHAGEAL REFLUX ASSOCIATED WITH GASTRIC TUMOR OF THE STROMA.

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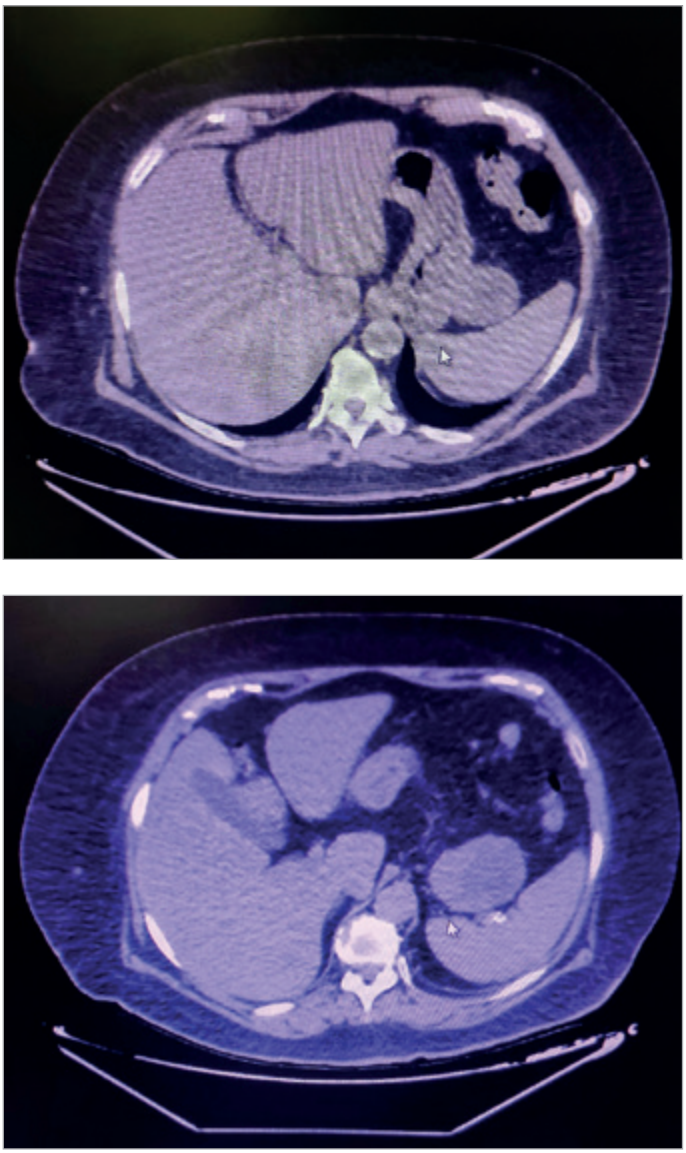
Case Description: 76-years-old obese woman with ischemic stroke and dyspepsia. Primary care abdominal ecography was realized finding a nodular image adjacent to the splenic middle third suggesting adrenal origin.
Clinical Hypothesis: Normal blood test and thorax X-ray, and gastroscopy with probable extrinsic gastric compression without alterations in the gastric mucosa (rest of the exploration without findings). Abdominal CT with intravenous contrast visualized a 11 mm nodule located in lingula, and 60x55 mm mass located between the stomach and the spleen, dependent on the gastric wall, with areas of necrosis inside (sarcoma or GIST).
Diagnostic Pathways: Under anesthetic assistance echoendoscopy exploration was performed, 60 mm solid lession with a cystic area in its central region located between the gastric chamber and the spleen is identified and proceed to perform a puncture with a 22ga histological needle, obtaining 3 cylinders for histological study that confirmed a Gastrointestinal Stromal Tumor.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: Gastrointestinal stromal tumors (GISTs), have their origin in the interstitial cells of Cajal. In 90-95% of the patients, this disease is related to a tyrosin-kinases receptor mutation, the identification of antigen CD 117 and CD 34 gives a distinctive cellular characteristic. Incidence is 14.5 by million annually. Most frequent affected organs are the stomach (60- 70%), small bowel (20-30%), colon and rectum (10%). Majority are sporadic and solitary tumors, the average age of presentation is 50-60 years. Common symptoms are abdominal pain, gastrointestinal bleeding or palpable abdominal mass, but most patients are asymptomatic. Surgical resection has been the only therapeutic modality.



#EV0568 Figure 1.

2646 / #EV0569

COVID-19 ENTERITIS – SEVERE ACUTE 'GASTROINTESTINAL' SYNDROME

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Case Description: A 64-year-old man, with no relevant history, was admitted to the ED due to fever, vomiting and left quadrant abdominal pain for the last 12 hours. On admission, he was febrile, with a temperature of 39ºC. On physical examination, the abdomen was diffusely tender on percussion and palpation, with intense pain on decompression of the left iliac fossa, compatible with peritoneal reaction. He had lymphopenia (380 u/L) without leukocytosis or neutrophilia. C-reactive protein was 1.7 mg/dL, without other significant analytical changes. He tested positive on RT-PCR for SARS-CoV-2. Abdominal CT revealed concentric and regular thickening of the jejunal segment. Lung bases had no evidence of COVID-19 disease.

Clinical Hypothesis: SARS-CoV-2 infection typically manifests as an infection of the respiratory tract, with dyspnoea and cough as major symptoms. However, it may present or be complicated by other conditions, particularly gastroenteritis. In these cases, nausea, vomiting, abdominal pain, and diarrhoea may be the presenting symptoms.

Diagnostic Pathways: Faced with an acute abdomen of unknown cause, he underwent emergent exploratory laparotomy, revealing a thickened and reddened jejunum, but viable and with a regular lumen. No other abdominal changes were found. He recovered without complications under empirical antibiotic therapy.

Discussion and Learning Points: Acute gastroenteritis of viral aetiology is very common, with some cases due to COVID-19 already described. Although rare, SARS-CoV-2 gastroenteritis may mimic an acute abdominal syndrome, with signs of peritoneal irritation, requiring a high level of suspicion and concomitant exclusion of other intra-abdominal pathologies. Treatment is supportive.

2054 / #EV0570

BILOMA AS A RARE MANIFESTATION OF SPONTANEOUS BILE LEAK

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Case Description: A 82-year-old female presented to the emergency room with acute onset of left shoulder pain for one day, described as sharp, radiating to her hemithorax, and associated with non-biliary and non-bloody vomiting. She did not refer trauma, fever, dyspnea, bowel movement irregularities, weight loss. She was under immunosuppressive therapy for p-ANCA vasculitis. There wasn´t history of hepatobiliary surgery

DOI: 10.12890/2022_V9Sup1

or trauma. No alterations in physical examination and laboratory abnormalities were nonspecific. On the third day of hospitalization, she experienced acute onset of epigastric and right upper quadrant (RUQ) pain with nauseas. Clinical examination showed RUQ tenderness without rebound tenderness or Murphy's sign. Laboratory workup was significant for elevated levels of liver function tests.
Clinical Hypothesis: Cholecystitis or pancreatitis.
Diagnostic Pathways: Abdominal US showed a collection and was negative for cholecystitis. Abdominal CT scan revealed a biloma (6.3 cm) with cholangitis, which pushed the stomach, without evidence of pancreatitis or gallstones. These findings developed in 2 days. After discussion of the case with General Surgery the patient was managed conservatively. She showed a clinical improvement. She developed a cholecystopancreatitis, 3 months after discharge, which was managed by transcutaneous drainage.
Discussion and Learning Points: Biloma is a collection of bile outside the bile duct, with a high mortality rate. Incidence rate is 0.3%–2%. Spontaneous bilomas are rare. Systemic vasculitis involving the liver is uncommon, but it can cause a deficient arterial blood flow to the bile duct wall, resulting in ischemic cholangiopathy, and bile leakage. The clinical characteristics and rarity make this case important and interesting in our practice.

802 / #EV0571

LIVER FIBROSIS AND CARDIOVASCULAR RISK IN DIABETIC PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE

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Background and Aims: Patients with non alcoholic fatty liver disease (NAFDL) usually have features of the metabolic syndrome and also have a higher cardiovascular diseases (CVD) risk than the general population.
Methods: We aimed to see if there is any correlation between the cardiovascular risk and the liver fibrosis, in NAFDL patients. We have studied a group of 23 NAFDL patients hospitalized in the Diabetes Department of Sibiu Hospital, during three months. At them, we have calculated the cardiovascular risks using the UKPDS risk engine. The liver fibrosis was non-invasively assessed using the Forns index and the APRI score. The results were analyzed using the Pearson index.
Results: The average age of NAFDL patients was 66.91 years. The 10 years risk of developing CVD in NAFDL patients were: for coronary heart disease 33.02%, for fatal coronary heart disease 26.81%, for stroke 15.91% and for fatal stroke 2.86%. A linear correlation was found between the Forns index of liver fibrosis and the risk of developing CVD (r=0.21 for coronary heart disease, r=0.199 for fatal coronary heart disease, r=0.334 for stroke and r=0.325 for fatal stroke). A linear correlation was found between the APRI score and the CVD risk (r=0.320 for coronary heart disease, r=0.324 for fatal coronary heart disease, r=0.216 for stroke and r=0.217 for fatal stroke). The level of liver cytolysis did not correlate with the risk of CVD.
Conclusions: Our findings suggest that liver fibrosis in patients with nonalcoholic fatty liver disease is well correlated with the risk of developing cardiovascular diseases.

817 / #EV0572

THE ALCOHOL CONSUMPTION IN PATIENTS WITH CHRONIC B AND C HEPATITIS

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Background and Aims: Viral infections favour the development of alcoholic liver diseases; these two factors, alcohol and viruses, potent themselves. Our aim was to study the prevalence and some consequences of alcohol consumption among patients chronically infected with HCV or HBV.
Methods: We have considered all the patients who were hospitalized in the medical departments of three major cities from Transylvania during ten weeks, and who were ultrasonografically examined. We have studied the prevalence of HCV and HBV infection and the association of these diseases with alcohol consumption.
Results: A total number of 1377 patients were examined. The prevalence of the infection with HCV was of 7.5%. From these, 13% were also alcohol consumers. The patients with HCV who did not consume alcohol, as compared with those who are also consuming alcohol had significantly higher values of: the degree of liver steatosis (p=0.02), the spleen diameter (p=0.05), TGO (p=0.00037), TGP (p=0.0062), GGT (p=0.00016), total bilirubine level (p=0.027), the Forns index of liver fibrosis (p=0.22). The prevalence of the infection with HBV was of 1.81%. There were found significantly higher values of: the degree of liver steatosis (p=0.009), the triglycerides level (p=0.06), the glycemic level (p=0.046), the level of GGT (p=0.042), Forns index of liver fibrosis (p=0.296) in the patients who were infecteed with HBV virus and also are alcohol consumers.
Conclusions: The alcohol consumption among patients chronically infected with HCV and HBC is pretty high. The patients who have viral hepatitis and also consume alcohol have higher steatosis grade and higher degree of cytolysis and cholestasis.

 DOI: 10.12890/2022_V9Sup1

98 / #EV0573

IDIOSYNCRATIC TOXIC HEPATITIS TO LEVETIRACETAM: A CLINICAL CASE

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Case Description: A 54-year-old male with a personal history of overweight and newly diagnosed epilepsy treated with levetiracetam 1500 mg/day. No history of alcohol, smoking or toxicological habits. No intake of supplements or herbal products. He presented with abdominal pain, jaundice, acholic stools and pruritus. Analytically with total bilirubin 10.70 mg/dL, direct bilirubin 7.30 mg/dL, aspartate aminotransferase 49 UI/L and alanine aminotransferase 100 UI/L. There was a mixed pattern of progressively worsening liver injury, reaching total bilirubin values above 30 mg/dL.

Clinical Hypothesis: Imaging exams excluded the hypotheses of Budd-Chiari syndrome, obstructive or neoplastic causes. The etiological investigation excluded hepatotropic viruses, autoimmune or storage diseases. Drug-induced liver injury (DILI) was thus the exclusion diagnosis investigated.

Diagnostic Pathways: Liver biopsy showed a mild inflammatory infiltrate, liver parenchyma with intrahepatic cholestasis, no iron or copper deposits, suggestive of toxic or drug induced hepatitis. It was assumed DILI to levetiracetam with suspension of this drug, and switch to topiramate. Prednisolone 60 mg/day was started, with progressive clinical and analytical improvement, which remained even after complete weaning from corticosteroid therapy. No recurrence of the frame to date.

Discussion and Learning Points: DILI represents a diagnostic challenge, since it's based on subjective criteria, making it necessary to exclude liver diseases of other etiologies. It must be considered when faced with an unexplained acute or chronic liver injury. The idiosyncratic form is unpredictable and depends on the individual's characteristics, not being directly related to the drug dose. Taking into account the potential severity of this disease, it is essential to create awareness of the medical community to the importance of its timely diagnosis.

2512 / #EV0574

AN UNCOMMON DIAGNOSIS OF LIVER MASSES

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Case Description: A 67-year-old woman with a pathologic history of rheumatoid arthritis, presented an abdominal pain in the lower quadrants of the abdomen, postprandial vomiting, fever and constipation within a week of evolution. She only reported daily contact with farm animals, denying any other associated symptoms and no alcohol or drug consumptions. Physical examination revealed no relevant alterations.

Clinical Hypothesis: Metastases, abscesses, primary tumor of the liver.

Diagnostic Pathways: Analytically, there was evidence of leukocytosis and increase in CRP and procalcitonin, as well as an increase of the aminotransferases, gammaglutamyl transferase and alkaline phosphatase, with no other alterations. Abdominal ultrasound, CT and MRI documented several hepatic nodules compatible with abscesses or metastasis, as well as thrombosis of the splenoportal confluent. Colonoscopy, endoscopy, mammography and breast and thyroid ultrasounds were normal. The serologies were negative, as were the blood cultures and tumor markers. A liver biopsy showed an inflammatory myofibroblastic tumor of the liver (IMT).

Discussion and Learning Points: IMT are rare entities. These lesions are histologically characterized by proliferation of fibroblasts and inflammatory cells, of unknown etiology. Some associations with bacterial, fungi and mycobacteria infections and the Epstein-Barr virus have been reported, as well as autoimmune diseases, such as rheumatoid arthritis. It can manifest as a solitary mass or multifocal. Constitutional symptoms such as fever, fatigue, abdominal pain and weight loss are frequent. Physical examination may reveal hepatosplenomegaly, jaundice, and right upper quadrant pain. Tumor markers are always negative. These lesions are rarely associated with malignancy processes, so surveillance and use of corticosteroids are the best approach.

1931 / #EV0575

HAEMOPERITONEUM DUE TO SPLEEN RUPTURE AFTER A PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG).

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Case Description: The patient is a 50-year-old male who had undergone surgery for a complete laryngectomy, receiving also Radiotherapy because of a supraglottic carcinoma. After surgery, a tracheostomy was performed and a feeding tube placed. Eventually, the feeding tube had to be replaced by a percutaneous endoscopic gastrostomy (PEG) because the cricoid cartilage had been destroyed due to radiotherapy and a tracheoesophageal fistula had been created. Two hours after placing the PEG, the patient starts complaining of acute and intense abdominal pain. The blood test showed a severe drop in the hemoglobin levels to 5 mg/dl, the previous one being 10 mg/dl.

Clinical Hypothesis: Given the acute abdominal pain and anemia after a surgical procedure, even if it´s not very aggressive, bleeding secondary to it had to be ruled out.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: An abdominal CT was requested, showing a very large spleen subcapsular hematoma with signs of active bleeding and profuse haemoperitoneum. Immediate surgery was decided to perform a splenectomy.

Discussion and Learning Points: There are very few cases of severe complications after a PEG implant reported in the available literature. The complication rate is low and the main ones are light, as in the first place would be the ostomy infection. Haemoperitoneum is a very rare complication and in this case it was caused by the spleen rupture because of the gastrosplenic ligament distension due to the impact from placing the tube. It can be concluded that percutaneous endoscopic gastrostomy is a simple technique with very few and usually light complications, but major ones are not inexistent.

1101 / #EV0576

57-YEAR-OLD WOMAN WITH PERSISTENT EPIGASTRALGIA AND DYSPEPSIA

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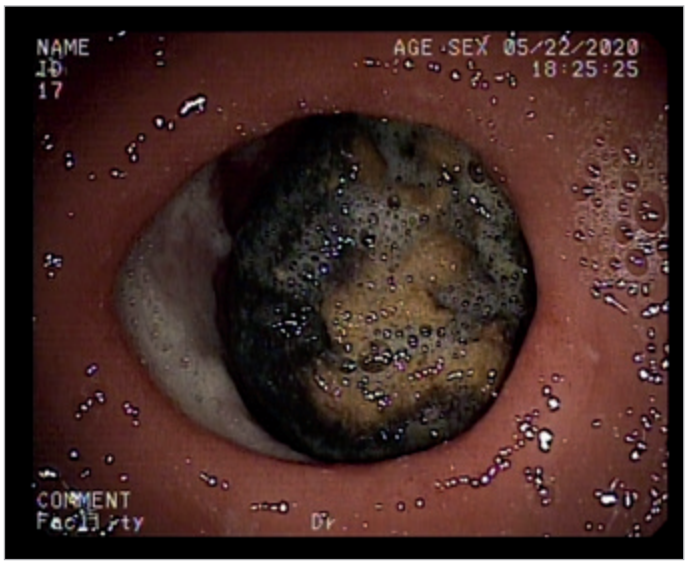
Case Description: A 57-year-old woman with GERD, Barret's esophagus and hiatal hernia having a Nissen fundoplication in 2017. She was hospitalized on three occasions presenting dyspepsia, epigastralgia and abdominal distension, secondary to suboclusive symptoms due to slowed gastric emptying. In her last admission, abdominal CT scan showed duodenal thickening and obstruction, and the oral endoscopy, a gastric bezoar embedded in the prepyloric antrum that could not be extracted. Surgical intervention was performed requiring manual decompression (milking) towards the middle jejunum and enterotomy, with deerosion of the mucosa due to the hardness of the content. Days later, she was operated on again for fecaloid-purulent peritonitis secondary to suture dehiscence and colonic microperforations and was moved to the ICU in situation of septic shock, requiring invasive ventilation, vasopressors and hemodialysis. After a slow and progressive recovery, she evolved favorably and was discharged.

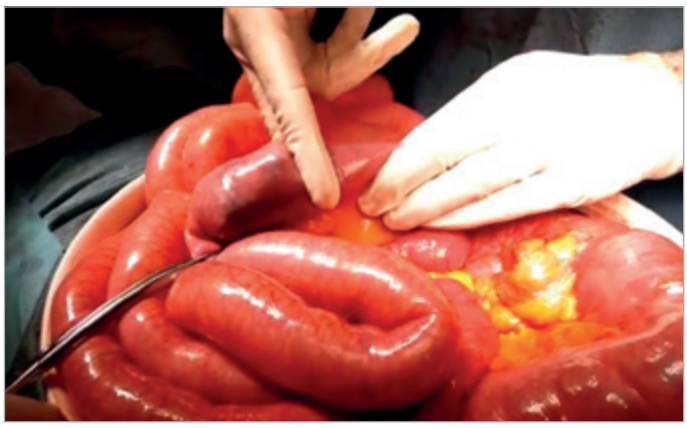
Clinical Hypothesis: Intestinal obstruction secondary to bezoar that required surgery, with postsurgical complications.

Diagnostic Pathways: Small bowel mechanical obstructions can be due to extrinsic causes (adhesions, hernias, or volvulus), intrinsic (tumors, intramural hematomas or malformations) or by processes that block the intestinal lumen such as foreign bodies, intussusception or cholelithiasis. The most common are intraperitoneal adhesions, tumors, and complicated hernias.

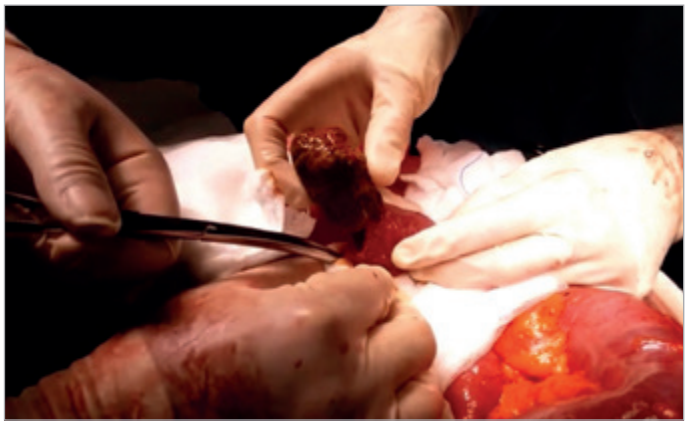
Discussion and Learning Points: A bezoar is an accumulation of ingested material in form of a hard mass in the stomach. The main risk factor for its development is gastric dysmotility, especially after surgical interventions. Treatment includes antiemetics, prokinetics and chemical solvents (cola drinks) in mild cases, and endoscopic or surgical treatment for moderate-severe cases.



#EV0576 Figure 1: Endoscopic vision of the gastric bezoar embedded in the prepyloric antrum.



#EV0576 Figure 2: Surgical removal of the bezoar by manual decompression (milking) into the jejunum.



#EV0576 Figure 3: Surgically removed bezoar.

 DOI: 10.12890/2022_V9Sup1

1390 / #EV0577

HEPATIC ABSCESS COMPLICATED WITH KLEBSIELLA AEROGENES BACTEREMIA - A CLINICAL CASE

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Case Description: Liver abscess is an uncommon but potentially life-threatening condition with considerable morbimortality. Bacteremia caused by *Klebsiella aerogenes*, a microorganism present in the gastrointestinal flora, is associated with worse outcomes. A 65-year-old man presented in the emergency department with 2 days of fever, without any other symptoms. In the past he was submitted to multiple abdominal surgeries: total gastrectomy for gastric adenocarcinoma and multiple surgical interventions for complications; cholecystectomy and choledocolithotomy.
Clinical Hypothesis: Initially admitted under ceftriaxone for further study.
Diagnostic Pathways: During hospitalization a CT scan revealed a liver abscess with 27 mm. Hemocultures isolated *Klebsiella aerogenes* and *Escherichia coli*. After these findings, the antibiotic regimen was adjusted and the patient completed 6 weeks of cefotaxime and metronidazole with favorable evolution. Given the size of the lesion, the excellent clinical evolution with sustained apyrexia and negative blood cultures, we decided not to perform drainage of the abscess. 3 months later there was complete resolution of the lesion in the magnetic resonance imaging.
Discussion and Learning Points: This clinical case assumes clinical relevance due to the association of two conditions with poor prognosis: liver abscess and bacteremia (*Klebsiella aerogenes*). Due to timely targeted antibiotic therapy it was possible to avoid surgical drainage of the abscess in a patient with multiple abdominal surgical past history without compromising the favorable outcome.

2281 / #EV0578

PANCREATIC INCIDENTALOMA: CASE REPORT

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Case Description: 52-year-old male, smoker and drinker, with generalized epilepsy, cirrhosis and chronic pancreatitis, who is treated with levetiracetam, deflazacort, omeprazole, clomethiazole and pancreatic enzymes. Under follow-up due to a doubtful mass on the head of the pancreas with duodenal involvement and main pancreatic duct, with biopsies without a clear anatomopathological study. He was hospitalized due to abdominal sepsis and cirrhotic decompensation. Imaging tests show the mass, adding portal vein compression and thrombosis of the superior mesenteric artery. Finally, the patient died without a definitive diagnosis. Finally, an autopsy is required to determine the etiology, confirming alcoholic chronic pancreatitis.
Clinical Hypothesis: It is important to reach a diagnosis for adequate therapeutic management. Among the differential diagnoses, we cannot rule out severe chronic pancreatitis, neoplasia or autoimmune pancreatitis.
Diagnostic Pathways: Imaging tests show a heterogeneous lesion that is difficult to define. It is important to obtain biopsies for anatomopathological study, taken from endoscopic tests and, in our case, by autopsy.
Discussion and Learning Points: The diagnosis of chronic pancreatitis is based on the history, symptoms and pancreatic dysfunction, supported by imaging tests. The main ones are computed tomography and magnetic resonance imaging. In severe cases, we can observe dilation and irregularity of the pancreatic duct, heterogeneity and irregular contour of the organ, necrosis, increased cavities, pancreatic calcifications, ductal obstruction due to stenosis and invasion of adjacent organs.

2176 / #EV0579

INFLAMMATORY BOWEL DISEASE - CASE REPORT OF A NEWLY DIAGNOSED ELDERLY WOMAN

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Case Description: A 92-year-old patient was admitted due to chronic diarrhea and involuntary weight loss [>10kg]. The patient had no history of recent antibiotic therapy and was on loperamide qds with no improvement. The patient denied fever, vomiting, or diet changes. Despite the possible ferrous sulfate therapy link, its suspension proved to be ineffective. The patient was emaciated, dehydrated, and pale; had a systolic murmur and the abdominal examination was unremarkable.
Clinical Hypothesis: Cancer; infectious and non-infectious gastroenteritis or colitis; diverticulosis; and inflammatory bowel disease [IBD]; Crohn's disease [CD] or ulcerative colitis [UC].
Diagnostic Pathways: Microbiology findings were unremarkable;

 DOI: 10.12890/2022_V9Sup1

positive fecal calprotectin; initial CT revealed nonspecific parietal thickening of the large rectal ampulla, though rarefaction of the colonic haustrations was found on 3 months re-evaluation; edema and hyperemia of the descending and sigmoid colon on colonoscopy; upper endoscopy uncovered reddish and swollen mucosa of the gastric body and antrum; and stomach and duodenum biopsies were highly suggestive of CD due to aspects corresponding to gastric involvement.
Discussion and Learning Points: According to findings, CD was the most likely diagnosis, and the patient was started on budesonide with total remission. Nonetheless, the next steps remain challenging, weighing the maintenance of the corticoid therapy on a low dose or whether to adopt a watchful waiting strategy or even to switch to azathioprine or biological agents [vedolizumab]. The importance of a thorough investigation is fundamental since IBD can present in different ways, at any age - approximately 1:160 elderly individuals is affected by IBD.

1754 / #EV0580

LARGE ASYMPTOMATIC ECHINOCOCCUS CYSTS IN A PATIENT HOSPITALIZED FOR COVID-19 PNEUMONIA: AN INCIDENTAL IMAGING FINDING

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Case Description: A 49-year-old male patient of Greek origin was admitted to our hospital because of COVID-19 pneumonia. His past medical history was unremarkable.When the patient underwent a chest computed tomography (CT) scan, two large fluid-density cystic lesions with well-defined margins were incidentally found in the right lobe of the liver. Total diameter of the cystic lesions was 20 cm. Peripheral focal areas of calcification were found on both cysts.
Clinical Hypothesis: Liver echinococcosis was suspected based on the imaging findings of the CT scan and the epidemiology of the disease in Greece.
Diagnostic Pathways: Liver biochemistry tests were within normal limits while serum anti-echinococcal antibodies were found positive. Magnetic resonance imaging (MRI) of the liver and biliary tract was performed after the patient was discharged from the hospital. T2-weighted images revealed mixed high signal areas representing proteinaceous cellular debris inside the cystic lesions, while septa and daughter cysts were well visualized. Compression or communication of the cysts with the bile ducts were excluded. Hepatic cystic echinococcosis was characterized as active, according to WHO classification criteria. Antiparasitic treatment with albendazole 800 mg daily was initiated and percutaneous treatment was planned.
Discussion and Learning Points: Cystic echinococcosis in humans is caused by lavral forms of *Echinococcus granulosus* tapeworms found in the small intestines of carnivores. It remains highly endemic in the Mediterranean littoral and should always be included in the differential diagnosis of hepatic cystic lesions with compatible imaging features.

350 / #EV0581

EFFECT OF VIRAL ERADICATION WITH DIRECT ACTING ANTI VIRAL AGENTS ON IRON PARAMETERS IN PATIENTS WITH CHRONIC HEPATITIS C AND HYPERFERRITINEMIA

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Background and Aims: Patients with chronic hepatitis C are at increased risk for hyperferritinemia (HF). Abnormalities of serum iron parameters are frequently observed in patients with chronic hepatitis C viral (HCV) infection. About a third of patients had increased iron parameters. Recently, the effect of direct acting anti-viral agents (DAAs) in HCV erradication in patients with raised serum iron studies has been published with normal iron status restoration. The aim of the work was to study the effect of viral eradication with DDAs in patients with chronic hepatitis C and HF.
Methods: Retrospective study. From 621 patients treated with DAAs for HCV (January 2018-december 2020), 77 presented HF (12,40%), and 74 were included in the study. Pre-treatment (PreT) and post-treatment (PostT) serum ferritin values were determined in all included patients Inclusion criteria: pre-treatment HF (>400 µg/L); chronic HCV hepatitis treated with DAA; SVR. Exclusion criteria: No pretreatment HF; no SVR; lost patients.
Results: From 74 patients, 15 women, 59 men (79.73%). Mean age: 58, 33, SD 8.68; PreT mean ferritin: 893.20 (SD 1037.09); PostT: 264.17 (SD 161.33); PreT Mean Transferrin saturation: 40.96 (SD 15.71); PostT: 29.82 (SD 11.17); PreT Mean Fe: 152.32 (SD 62.07), PostT: 109.32 (SD 39.49). When we compared PreT and PostT iron parameters, significant statistical differences were present with ferritin (p:0.0000), transferrin saturation (p:0.0000) and iron (p:0.0002) determinations.
Conclusions: SVR after DAAs for chronic hepatitis C induces a statistically significant reduction in iron parameters.

 DOI: 10.12890/2022_V9Sup1

365 / #EV0582

IMPACT OF THE NURSE COUNSELING ON THE VACCINATION OF PATIENTS WITH CHRONIC LIVER DISEASE IN TIMES OF COVID-19

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Background and Aims: People with chronic liver disease (CLD) and cirrhosis have an impaired immune system. Educational reinforcement by a nurse can lead to behavioral change. Given the poor compliance with the vaccination recommendations in patients with CLD, we have reviewed the immunological situation of these patients and we have implemented a nurse intervention with the aim of generating a behavioral change.
Methods: Patients with HCV cirrhosis. Nurse interventions:
1. The hepatology unit (HU) nurse will verify the vaccination status of patients with CLD and cirrhosis who have received treatment for HCV between 2015 and 2020
2. Carry out health advice by phone or in person and request a specific immunological profile
3. Review vaccination situation at 6 months.
Results: 363 vaccination records were reviewed. Discarded patients: 51 for absences, 54 death, 23 do not pick up the phone. 235 patients, 168 men, 67 women, mean age 55 years (42-86).
Flu vaccine: of 235 patients, 106 (45.10%) were already vaccinated. After telephone advice: 45 do not get vaccinated. 80 are vaccinated. 79.14% vaccinated. Differences: 34.63% CI 95% (28.5-40.77); p<0.0001.
Pneumococcal vaccine: 235 patients. 67 (28.51%) were vaccinated. After telephone advice: 50 are not vaccinated and 124 (52.7%) are vaccinated. 81.27% of the total. Differences: 51.45 CI 95% (45.14-57.76); p<0.0001.
COVID-19 vaccine: of 235 patients, 226 (96.17%) were vaccinated
Conclusions: Nurse counseling is very useful in the implementation of influenza and pneumococcal vaccination in cirrhotic patients due to HCV. It also improves the results of vaccination against COVID-19 in these patients.

1945 / #EV0583

A CASE OF PSYCHOSOMATIC DIARRHEA. MUCH MORE SOMATIC THEN PSYCHO

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Case Description: A 70-year-old woman, with a one year history of chronic diarrhea, with phases of remission and phases of exacerbation (6-7 discharges in day and night time, not related to meals). She refers also weight loss (10 kg), reduced food intake, fatigue, anxiety and insomnia. In the past history: Hashimoto's thyroiditis.
Clinical Hypothesis: Secretory diarrhea.
Diagnostic Pathways: The blood tests on admission showed hypokalemia (K 3 mEq/l), dysproteinemia (albumin 2.9 g/dL) and metabolic acidosis (pH 7.33, HCO3- 18 mMol/l). Thyroid function was normal. The stools were watery, without blood, leukocites or malabsorbed solutes; cultural and parasitological examinations were negative. A diet and pharmacological check excludes the main osmotic or iatrogenic causes. Upper and lower endoscopy and abdominal CT scan were negative. An empirical therapeutic attempt with colestiramine resulted ineffective. Suspecting a secretory causes a dosage of neuroendrocrin hormones (VIP, CGA and 5-HIAA) was executed. Waiting for the results, due to worsening of psychological symptoms, antidepressant drugs were started. After few days, the high value of VIP (>300 pg/mL), supported the diagnosis of VIPoma. Octreoscan was required for diagnostic confirmation and stadiation. In the meantime, a treatment with intamuscolar octreotide was started with complete regression of symptoms.
Discussion and Learning Points: VIPomas are exceptionally rare; 95% are primarily intrapancreatic and, if early diagnosed are surgical resectable. Unfortunately, the diagnosis is often late and most cases are already disseminated. In these cases , treatment is focalized on symptoms control with octreotide or chemiotherapic treatment. The median survival is 96 months.

308 / #EV0584

TUMOR LYSIS SYNDROME OCCURRING IN A PATIENT WITH A GASTROINTESTINAL STROMAL TUMOR (GIST) OF THE JEJUNUM

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Case Description: A 66-year-old man with delusional disorder controlled with aripiprazol was admitted at the emergency department. He was diagnosed of high-risk jejunal GIST with surgical resection and rejected further treatment or follow-up seven years ago. At the present time, he referred severe asthenia. Baseline laboratory evaluation included normal values of serum creatinine, potassium, lactic dehydrogenase, and uric acid. Laboratory liver functions test showed mild cholestasis. A full body CT was performed and revealed multiple liver metastases without signs of local tumor recurrence of the small bowel intestine. Oncology consultants evaluated the patient and started imatinib 300 mg daily. Three days later, the patient developed acute kidney injury, hyperkalemia

 DOI: 10.12890/2022_V9Sup1

(6.7 mmol/L, normal 3.6-5.2 mmol/L) and hyperuricemia (16.3 mmol/L, normal 3.4-7 mmol/L) with highly elevated levels of aspartate aminotransferase (3878 U/L, normal <37 U/L) and lactic dehydrogenase (11,761 U/L, normal 135-243 U/L).
Clinical Hypothesis: The first clinical hypothesis was tumor lysis syndrome (TLS).
Diagnostic Pathways: Abnormal laboratory values such as hyperkalemia, hyperuricemia, or hyperphosphatemia, occurring within few days after cytotoxic therapy were compatible with TLS. In our case, Imatinib was discontinued and fluids, insulin and rasburicase were started. All metabolic abnormalities resolved in 5 days.
Discussion and Learning Points: TLS is a potentially deadly complication wherein massive tumor cell lysis after chemotherapy results in severe metabolic abnormalities leading to an acute renal failure, cardiac arrhythmias and even death. Patients with metastatic disease, high tumor burden and response to anti-neoplasic treatments are at high risk of developing TLS. TLS risk should be assessed in high-risk patients and prompt treatment should be started.

426 / #EV0585

ULCERATIVE JEJUNITIS IN A PATIENT WITH CELIAC DISEASE

Pablo Segovia-Alonso[1], Marta Muñiz Muñoz[2], Sara Hernández Pinchete[3], Juan Manuel Blanco[2], Rosanna Villanueva Hernández[2], María Pilar Delgado Álvarez[2], Francisco Díaz[2], María Antonia Gonzálo[2], José Manuel Hernández[2]

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Case Description: A 55-year-old woman with celiac disease (CD) diagnosed twenty-one years ago was admitted at the emergency department. She was on a strict gluten-free diet and she was regularly attending attended to schedule check-ups. At the present time, she referred abdominal pain and weight loss for one month. Baseline laboratory evaluation showed slight ferropenic anemia and hypoproteinemia.
Clinical Hypothesis: Since the patient reaffirms her adherence to the gluten-free diet, the consequent clinical hypothesis were refractory celiac disease or intestinal lymphoma.
Diagnostic Pathways: IgA anti-tissue transglutaminase were negative with normal immunoglobulins levels. Upper enteroscopy with duodenal biopsy was performed showing moderate villous atrophy and increased intraepithelial lymphocytes, compatible with changes due to CD (3B Marsh classification). An entero-resonance revealed inflammatory bowel disease of the jejunum with signs of activity. Therapy with 1 mg/kg of corticosteroids and azathioprine were started with sensible clinical improvement. Four months later, after tapering of corticosteroid therapy, anemia and hypoproteinemia were resolved, the patient experienced a weight gain and the entero-resonance showed no signs of inflammatory activity.
Discussion and Learning Points: CD is an autoimmune disorder characterized by a T-cell–mediated response to ingested gluten, developing inflammatory changes in the small intestinal mucosa that result in malabsorption, diarrhea, and malnutrition. Ulcerative jejunitis in association with CD, is a rare entity and it is usually described among patients with refractory disease. Nevertheless, it has been demonstrated in patients with a good control of its disease. Progressive weight loss and malnutrition in patients with CD should alert of the possibility of the development of this disease.

428 / #EV0586

FALCIFORM LIGAMENT AND RIGLER SIGNS IN A PATIENT WITH ACTINIC RECTAL STENOSIS AND LARGE BOWEL PERFORATION

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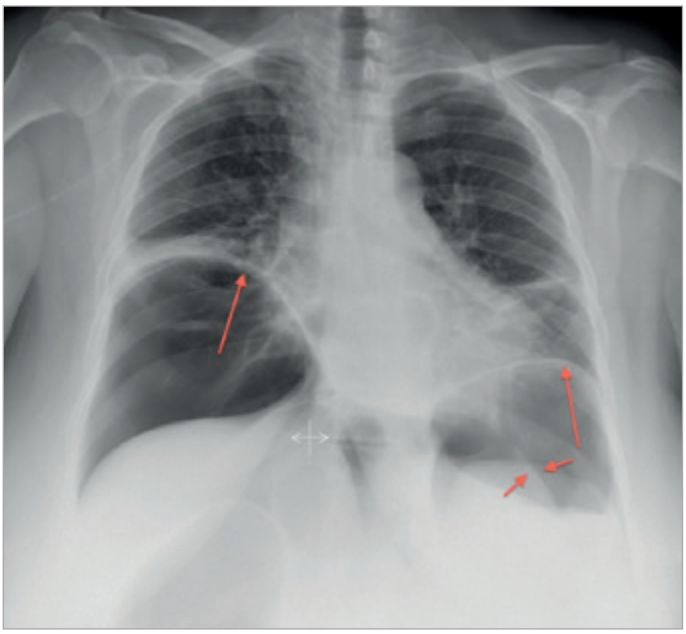
Case Description: A 57-year-old woman with diagnosis of stage IIIB mid-rectum adenocarcinoma who underwent low anterior resection and neoadjuvant chemoradiotherapy two years ago presented to the emergency department with fever, cough, abdominal pain and constipation for three days. She was previously diagnosed of actinic rectal stenosis but she did not required medical treatment or endoscopic dilation before.
Clinical Hypothesis: The first clinical hypothesis was respiratory infection. In the first moment, constipation could be explained by the use of opioids for pain control.
Diagnostic Pathways: Baseline laboratory evaluation showed lactic acidosis, leukocytosis and thrombocytosis; as well as elevated levels of c-reactive protein and procalcitonin. A chest x-ray was performed illustrating the falciform ligament outlined with free abdominal gas (falciform ligament sign, [large arrows]) and an image of “double wall” of the intestine (Rigler sign, [short arrows]) reflecting the presence of air on both sides of the intestine. An abdominal CT was conducted revealing large colonic perforation and subsequently subtotal colectomy was performed without further complications.
Discussion and Learning Points: Infections are one of the most common complications seen in oncology patients. Therefore, the first diagnostic opinion was respiratory infection, associating constipation with the occasional use of opioids for pain control. However, radiation-induced proctitis is a complex entity produced

 DOI: 10.12890/2022_V9Sup1

by the effects of radiation on the intestinal epithelial cells, which can cause pain, rectal bleeding, stenosis, obstruction and less frequently, perforation. Patients with rectal cancer undergoing radiotherapy have a high risk of developing actinic proctitis and its complications should be diagnosed and early treated.



#EV0586 Figure 1.

715 / #EV0587

LEAD PIPE SIGN IN ULCERATIVE COLITIS

Pablo Segovia-Alonso[1], Marta Muñiz Muñoz[2], Sara Hernández Pinchete[3], Juan Manuel Blanco[2], Rosanna Villanueva Hernández[2], María Pilar Delgado Álvarez[2], Francisco Díaz[2], María Antonia Gonzálo[2], José Manuel Hernández[2]

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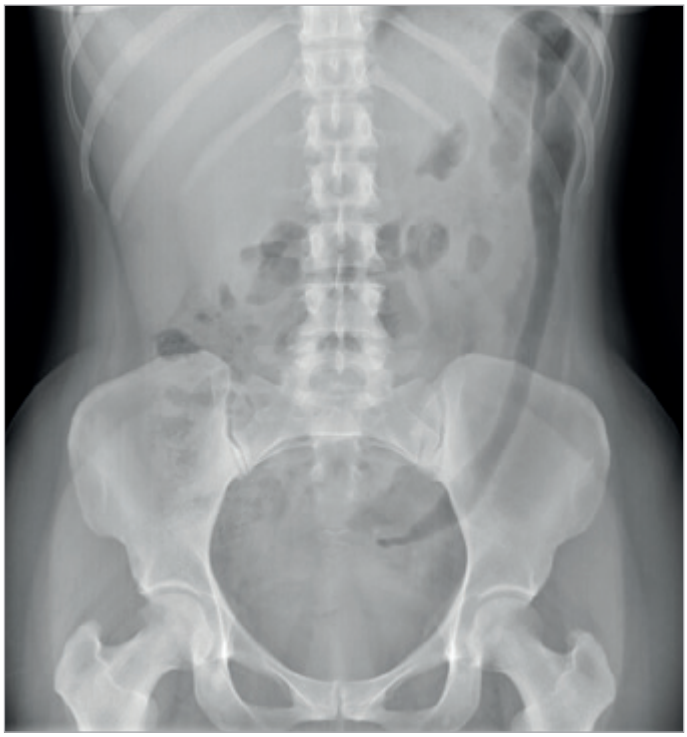
Case Description: A 32-year-old woman with diagnosis of ulcerative colitis presented to the emergency department with abdominal pain, bloody diarrhea, and fever. She was on treatment with 3 g/day mesalazine with moderate disease control.

Clinical Hypothesis: The first clinical hypothesis was ulcerative colitis exacerbation. Another possible hypothesis was bacterial colitis.

Diagnostic Pathways: Baseline laboratory evaluation included normal values of serum creatinine, with elevated C-reactive protein, leukocytosis and thrombocytosis. Fecal calprotectin levels were over 1000 µg/mg and the clostridium difficile toxin assay and bacterial stool culture was negative. An abdominal X-ray was performed during her work-up illustrating an important loss of haustral markings in the descending and sigmoid colon, which appeared smooth-walled and cylindrical (lead pipe sign), defining the extent of disease (left colitis). The patient was treated with corticosteroids with significant clinical improvement and subsequent normalization of the radiographic findings.

Discussion and Learning Points: Ulcerative colitis is characterized by recurring episodes of inflammation limited to the mucosal layer of the colon. It commonly involves the rectum, but it may extend in a continuous manner to involve other parts of the colon. The inflammatory process that leads to ulcerative colitis causes mucosa degeneration with loss of its architecture. In addition, in some cases, scarring shortens and narrows the colon, creating the appearance of the lead pipe. Although the use of abdominal radiography is limited over time, in patients with ulcerative colitis it can be very useful to rule out complications or, as in this case, to define the extent of colonic involvement.



#EV0587 Figure 1.

788 / #EV0588

A CASE OF INTRAVENOUS AMIODARONE-INDUCED ACUTE LIVER INJURY

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Centro Hospitalar Universitário de Lisboa Central, Internal Medicine, Lisboa, Portugal

Case Description: A 61-year-old man was admitted to the Emergency Room (ER) for acute heart failure and atrial fibrillation with rapid ventricular response. Intravenous (IV) amiodarone was administered but discontinued 24h later due to inadequate chronotropic response. Blood tests performed 48h after

 DOI: 10.12890/2022_V9Sup1

admission revealed a significant rise in aminotransferases and LDH (over 3000 U/L) and INR (13.69) levels.
Clinical Hypothesis: Based on anamnesis, blood tests and abdominal ultrasound, viral, ischemic/vascular, autoimmune, metabolic, and infiltrative aetiologies of acute liver injury (ALI) were ruled out.
Diagnostic Pathways: Subsequent blood tests revealed progressive and spontaneous improvement of hepatocellular parameters. Considering the clinical evolution of this patient, which is similar to other published case reports, a diagnosis of amiodarone-induced hepatitis was made.
Discussion and Learning Points: ALI is characterized by liver damage associated with impaired hepatic function in individuals without chronic liver disease. Identification of its etiology is crucial, especially in cases of drug induced hepatitis, where drug suspension prevents evolution towards more severe cases and may lead to resolution of ALI. Drug induced liver injury is a presumptive diagnosis that relies on the exclusion of alternative causes of ALI: it is based on the temporal relationship between drug exposure and hepatic injury and the response to drug withdrawal. This case report is an example of ALI secondary to IV amiodarone, which is a rare but potentially fatal clinical entity. Since IV amiodarone is a frequently used drug in the ER setting, hereby we highlight the importance of medication review in patients with ALI in addition to monitoring hepatic blood parameters during amiodarone therapy.

1765 / #EV0589

IMPACT OF MICROBIOME COMPOSITION ON QUALITY OF LIFE OF HD PATIENTS ANNA SHAMANADZE; TAMAR KANDASHVILI; IRMA TCHOKHONELIDZE; TBILISI, GEORGIA

Anna Shamanadze

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Background and Aims: The gut microbiome maintains a symbolic relationship with the host under normal conditions. Increasing evidence suggests that interstinal microflore is altered in patients with chronic kidney disease (CKD). Many of uremic retention solutes are produced by dysbiotic intestinal microflore that may have a great impact on survival of the CKD patients. CKD have serious effects on patient's quality of life (QoL) and, in especially, on their psychological, social, economic prosperity. It is important to mention that factors that influence Health-related quality of life in patients with ESRD have received little attention. Aim: The aim of this study was to improve QOL of HD patents by using probiotics.
Methods: The sample study consisted of 33 patients, age 18-75 undergoing hemodialysis in one dialysis center. Data were collected by specially designed questionnaire; for assessment of QoL "Missoula VITAS Quality of life index MVQOLI" was used. Fecal sample was analyzed before and after treatment with probiotics. Patients were detailed instructed about the probiotic treatment.
Results: It revealed alteration of the colonic bacterial flora in hemodialysis patients. Also, there was strict correlation between gut dysbiosis and HD patent's QoL.
Conclusions: Our study demonstrates important relationships between gut dysbiosis and QoL in HD patients. Correction of intestinal flora with probiotics-containing *L. acidophilus*, *B. longum* and *S. thermophilus* for 12 weeks improves quality of their lives.

1767 / #EV0590

IMPROVEMENT OF PROCOAGULANT IMBALANCE IN NON-CIRRHOTIC PATIENTS WITH CHRONIC HEPATITIS C AFTER VIRAL ERADICATION IS IMPAIRED BY METABOLIC COMORBIDITIES

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Background and Aims: In patients with chronic hepatitis C (CHC) a procoagulant state has been demonstrated and linked to hepatic damage. In CHC with cirrhosis, viral eradication reduces the procoagulant imbalance; however, less is known about non-cirrhotic patients. We aimed to assess change in the procoagulant imbalance after viral eradication in non-cirrhotic CHC patients and the role of metabolic comorbidities on coagulation alterations.
Methods: 104 CHC patients without advanced liver fibrosis were evaluated before and six months after viral eradication collecting anthropometric, clinical, liver damage and coagulation parameters. Liver damage was evaluated by liver stiffness measurement (LSM) by transient elastography, while procoagulant imbalance by factor VIII to protein C ratio (FVIII/PC). Fifty-two patients were evaluated also 24 months after therapy.
Results: After viral eradication, procoagulant imbalance improved in 86% of patients (FVIII/PC 1.76±0.76 vs 1.32±0.54, p<0.001) and liver fibrosis improved in 69% (LSM 5.4 [4.6-6.0] vs 4.8 [3.9-5.5], p<0.0001), both remained stable at 24 moths. In patient who didn't improve coagulation compared to those who did, prevalence of diabetes at baseline was ten-fold higher (30% vs 3%, p=0.0006). At multivariate analysis, presence of diabetes at baseline remained an independent risk factor for absence of coagulation improvement (OR 18.7, IC95%, 1.6-217, p=0.02).
Conclusions: Viral eradication led to a very early improvement in both procoagulant imbalance and liver fibrosis, suggesting

 DOI: 10.12890/2022_V9Sup1

a relationship among CHC, liver damage and coagulation modifications. Lack of improvement, found in a minority of patients, may be explained by the concomitant presence of metabolic comorbidities, such as diabetes.

797 / #EV0591

EXUBERANT PANCREATIC PSEUDOCYSTS

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Case Description: 40-year-old male, with history of necrotizing pancreatitis of alcoholic etiology complicated with distributive shock with severe acute respiratory syndrome and need for ECMO, admitted in the ER with increased abdominal volume, right low back pain with 1 week evolution, fatigue, and diminished urinary debt.
Clinical Hypothesis: Kidney stones, pancreatitis, pancreatic pseudocysts, malignancy.
Diagnostic Pathways: Thoracoabdominal CT scan presented "exuberant hydric abdominal loculated collections". Considering the personal medical history of the patient, pancreatic pseudocysts were assumed. He was submitted to eco-guided drainage with immediate waste of 5 liters of brown material compatible with pseudocyst content. A total of 9755 cc were drained.
Discussion and Learning Points: Pancreatic pseudocysts are a common complication of pancreatitis caused by inflammation and subsequent damage of the pancreatic ducts leading to accumulation of pancreatic fluid. Symptomatic and complicated pseudocysts may require drainage as happened on the presented case.

904 / #EV0592

MESENTERIC ISCHEMIA: THE DIAGNOSTIC CHALLENGE

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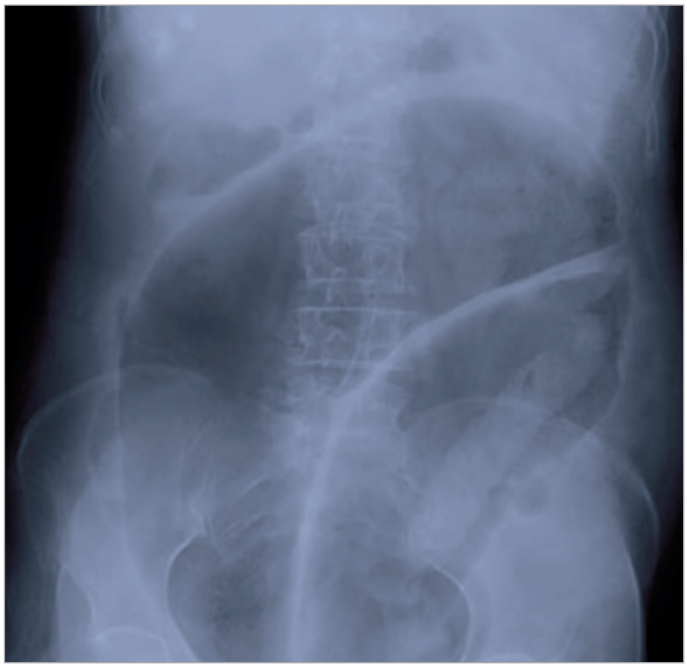
Case Description: Mesenteric ischemia occurs when there is stenosis or occlusion of the arteries supplying the intestine. It´s an emergency, and the biggest difficulty in its approach is often related to make the diagnosis in time, mostly in older patients, who often present clinical conditions that mask this diagnosis. We present the case of a 84 years old male, seen in the emergency room with dysarthria and aphasia for two hours. In the emergency department, he presented abdominal pain, vomiting and nausea, and no other neurological deficits in addition to the previous The case was approached as a stroke and the patient was quickly taken to the CT scan.
Clinical Hypothesis: Pancreatitis, appendicitis, diverticulitis, cholecystitis, mesenteric ischemia, stroke.
Diagnostic Pathways: The cerebral CT scan did not reveal any lesions and the dysarthria and aphasia spontaneously resolved abdominal X-ray revealed colic distension with coffee bean sign (see image). The patient did not present response to conservative therapy (decompressive colonoscopy). -The abdominal distension significantly worsened, subsequently identifying in colonoscopy a focal ischemic zone 25 cm from the anal margin, which did not deserve treatment surgical given the patient's comorbidities.
Discussion and Learning Points: Suspicion of mesenteric ischemia should be very frequent and not just in sudden and severe abdominal pain. In this in case the form of presentation, dysarthria and aphasia, did not allow suspicion of mesenteric ischemia.



#EV0592 Figure 1.

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LEMMEL'S SYNDROME - DESCRIPTION OF A RARE COMPLICATION IN THE INTERNAL MEDICINE NURSERY

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Case Description: 81-year-old woman, history of atrial fibrillation, hypertension, dyslipidemia, hospitalized for decompensated heart failure. On the 6th day of hospitalization, diffuse abdominal pain and nausea begin; apyrexia, jaundice, distension and abdominal guarding on physical examination.
Clinical Hypothesis: Considering the symptoms caused in the presence of complications, it is essential to investigate the etiology of the complaints, namely lithiasis (more common) or other cause of obstruction.
Diagnostic Pathways: Analysis with cytocholestasis and mixed hyperbilirubinemia, without inflammatory parameters. Ultrasound

 DOI: 10.12890/2022_V9Sup1

without gallstones; CT scan with intra- and extrahepatic bile duct dilatation by compression of the common bile duct by peri-ampullary duodenal diverticulum, measuring approximately 2 cm. An endoscopic retrograde cholangiopancreatography (ERCP) was performed, which excluded obstructive causes, namely lithiasic or neoplastic. A clinical picture of cholestatic jaundice was assumed in the context of extrinsic compression caused by duodenal diverticulum - Lemmel's syndrome.

Discussion and Learning Points: Lemmel's Syndrome is a rare cause of obstructive jaundice caused by a periampullary duodenal diverticulum that compresses the common bile duct with consequent dilatation of the upstream intra and extrahepatic bile ducts. Cholangitis is one of the serious complications associated with it. Duodenal diverticula have an incidence of 5-17%, increasing with age, being mostly extraluminal and acquired, predominantly located close to the ampoule of Vater. They rarely complicate (1-5%), being mostly asymptomatic. In the case presented here, the absence of any other alteration besides the periampullary diverticular disease justified the diverticulum as the cause of the clinical case. ERCP is the choice for diagnosis and treatment of biliary or pancreatic complications (endoscopic sphincterotomy).

2326 / #EV0594

SMALL BOWEL OBSTRUCTION DUE TO LATE ONSET OF SYMPTOMATIC MECKEL'S DIVERTICULUM

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Case Description: 79-year-old male with past medical history of diverticulosis and alcoholic cirrhosis presented with 3 days of crampy abdominal pain, nausea and vomiting. CT of abdomen showed moderate abnormal, small bowel dilatation, and abnormal configuration of colon with absence of colon in right side of abdomen. He underwent exploratory laparotomy and was found to have small bowel Meckel's diverticulum causing twisting of the small bowel.

Clinical Hypothesis: Meckel's diverticulum is a true diverticulum found in 2% of the population, 2 ft from ileocecal valve and tends to be 2 inches long. It is often asymptomatic, with a reported incidence of 1-3% and lifetime risk for symptomatic Meckel's at 4.2-9.0%. This report reviews a case of small bowel obstruction due to late onset of symptomatic Meckel's Diverticulum.

Diagnostic Pathways: Patient initially underwent CT scan of abdomen suggesting partial obstruction and abnormal configuration of right colon. A nasogastric tube was placed, and he was started on IV fluids and antibiotics. X ray with serial films conducted later showed no contrast visualized in the colon representing high bowel obstruction. Patient underwent surgery where small bowel Meckel's diverticulum was discovered and divided.

Discussion and Learning Points: Complications of Meckel's diverticulum in adults include diverticulitis, small bowel obstruction and GI bleeding. Surgical intervention for incidental and asymptomatic Meckel's continues to be not recommended given postoperative complications. However, early diagnosis of the condition is vital as surgery is the mainstay treatment for symptomatic cases. Consideration and workup of Meckel's should be considered in adults with unexplained chronic abdominal issues to rule in or out its possibility.

2566 / #EV0595

GURVITS SYNDROME: THE DARKER SIDE OF ALCOHOL ABUSE

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Case Description: Gurvits syndrome or "black esophagus" is a rare condition, first described in 1990. Its pathophysiology is poorly understood and true prevalence underestimated. Association with increasing age and multiple comorbidities, such as alcoholism and malignancy, is common. Characteristic endoscopic black-appearing esophageal mucosa establishes the diagnosis. The authors describe the case of a 72-year-old woman, with alcohol abuse, no other relevant past medical history, admitted to the emergency department with acute epigastric pain and hematemesis.

Clinical Hypothesis: No signs of hemodynamic instability and no abnormalities were found upon physical examination. Laboratory exams showed elevation of liver enzymes and mild hyponatremia. Upper digestive endoscopy revealed a diffusely eroded mucosa with hematic remains and areas of black mucosa, suggestive of ischemia/black esophagus, with no surgical indication.

Diagnostic Pathways: Started *Nil per os*, fluids, proton pump inhibitor therapy and empirical antibiotic. Subsequently, a chest angio-tomography excluded major complications. During hospitalization, left Homans sign was present and venous ultrasound identified a ipsilateral deep venous thrombosis, which prompted anticoagulation initiation, and a hypoechoic area within the ipsilateral gastrocnemius of nonspecific nature. Posterior access to exams performed abroad revealed a thyroid/parathyroid nodule (TIRADS 4), hiatal hernia, hepatic steatosis and sigmoid thickening. After clinical improvement and diet tolerance the patient was discharged and referred for consultation, waiting for

 DOI: 10.12890/2022_V9Sup1

magnetic resonance of the left leg, thyroid fine needle biopsy and colonoscopy.
Discussion and Learning Points: This case illustrates the importance of recognizing this entity in patients with upper gastrointestinal bleeding and alcohol abuse. Awareness will lead to improvement in diagnostic rate and prognosis.

2366 / #EV0596

CLOSTRIDIUM DIFFICILE INFECTION AND BILIARY OBSTRUCTION CASE REPORT

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Case Description: We are presenting a case of a 38-year-old man was admitted to the hospital with biliary obstruction and *Clostridium difficile* infection. The hepatic biochemical profile improved during corticosteroid therapy, which is a change more characteristic of autoimmune hepatitis than of primary sclerosing cholangitis, needs for a positive diagnostic an endoscopic retrograde cholangiopancreatography and a biopsy of gastric and duodenum mucosae. The abnormalities in the results of liver-function tests due to primary sclerosing cholangitis may have been resulted in part to the intestinal inflammation due to Crohn's disease; the abnormalities improved with therapy directed at suppressing that inflammation.
Clinical Hypothesis: The hepatic biochemical profile improved during corticosteroid therapy, which is a change more characteristic of autoimmune hepatitis than of primary sclerosing cholangitis, needs for a positive diagnostic an endoscopic retrograde cholangiopancreatography and a biopsy of gastric and duodenum mucosae
Diagnostic Pathways: The abnormalities in the results of liver-function tests due to primary sclerosing cholangitis may have been resulted in part to the intestinal inflammation due to Crohn's disease; the abnormalities improved with therapy directed at suppressing that inflammation.
Discussion and Learning Points: The abnormalities in the results of liver-function tests due to primary sclerosing cholangitis may have been resulted in part to the intestinal inflammation due to Crohn's disease; the abnormalities improved with therapy directed at suppressing that inflammation.

1780 / #EV0597

ACUTE PANCREATITIS WITHOUT INCREASED PANCREATIC ENZYMES

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Case Description: A 63-year-old male with a personal history of controlled arterial hypertension presented to the emergency room with fever (39.2ºC) and "belt-like" abdominal pain, that lasted for two days. He denied alcohol or smoking habits. On physical examination, the abdomen was painful to palpation on the left flank, without guarding. Remaining physical examination was innocent.
Clinical Hypothesis: The referred pain and time onset are highly suggestive of acute pancreatitis, therefore it should be the first clinical hypothesis to be taken into account.
Diagnostic Pathways: The laboratory tests revealed Îinflammatory parameters (19,200x10^3/µL leukocytes with 76% neutrophils, CRP 20.59 mg/dL), normal hepatobiliary function, normal amylasemia (35 U/L) and lipasemia (108 U/L), cholesterol total/LDL/HDL of 208/131/40 mg/dL, respectively, and triglycerides of 145 mg/dL. No pathogen was cultured. An abdominal CT evidenced signs of adipose and fascial peripancreatic densification, in favor of edematous pancreatitis. An abdominal MRI was compatible with acute acalculous pancreatitis. Supportive treatment and fasting were initiated, with progressive introduction of oral feeding. He remained apyretic; amylase and lipase were normal in several determinations.
Discussion and Learning Points: There have been described, although rare, cases of acute pancreatitis without Îamylasemia or lipasemia. Towards a suggestive clinical presentation it's important to maintain a high level of suspicion and perform imaging tests to confirm it. There's the need for future research to understand the mechanisms underlying the development of acute pancreatitis without elevation of pancreatic enzymes.

Rao EMM, et al. (2015) A Case of Acute Pancreatitis without Enzyme Elevation – A Rare Presentation of a Common Condition. Clinical Medical Reviews and Case Reports 2:066.

454 / #EV0598

COELIAC DISEASE REVEALED BY ATYPICAL SYMPTOMS

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Case Description: Coeliac disease (CD) is a systemic immune-mediated enteropathy that develops as a result of interplay between genetic, immunologic, and environmental factors. The peculiarity of this gluten-sensitive enteropathy is it's well known

 DOI: 10.12890/2022_V9Sup1

clinical heterogeneity and polymorphic way of expression. Even though the digestive symptoms are known to be the most common manifestations of CD; the neuropsychiatric signs may constitute a circumstance of discovery of this enteropathy, which was the case of our patient.
Clinical Hypothesis: The patient was a 46-year-old male. He has been referred to us in order to investigate about a recent ascending quadriparesis with cerebellar ataxia. Physical examination has found jaundice, weakness and profound emaciation a 2 months history of profuse diarrhea.
Diagnostic Pathways: Biology: pancytopenia, inflammatory syndrome, cholestasis syndrome and an important malabsorption syndrome. A Cerebrospinal MRI angiography was performed showing a cerebellar atrophy. Upper endoscopy with histological analysis and celiac serology test were all positive in favor of an active and severe CD. A CT scan examination was performed for two main purposes .Firstly, to assess the abdominal pain, showing an inferior vena cava thrombosis. Secondly, to exclude an eventual enteropathy-associated T cell lymphoma.
Discussion and Learning Points: A gluten-free diet, a physical rehabilitation and an anticoagulation treatment have been initiated, the evolution was spectacular after two weeks with progressive regression of all clinical symptoms especially the neurological complaints. CD is an auto-immune multifaceted disease with highly variable extra-intestinal, involvement. The diagnosis may be a real challenge for the clinician due to this variety of clinical manifestations.

2505 / #EV0599

WHEN ANTIHYPERTENSIVE MEDICATION CAUSES SEVERE DIARRHOEA

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Case Description: A 64-year-old woman was admitted to an Internal Medicine ward for watery diarrhoea causing acute kidney injury and metabolic acidosis. She also had anorexia and weight loss (3 kg over one week). Two weeks prior, she had been admitted for a similar picture that resolved spontaneously within two days. This second episode started two days after discharge and resolved again within two days after admission. She had been treated for essential hypertension for four years with olmesartan and hydrochlorothiazide.
Clinical Hypothesis: Olmesartan-induced enteropathy (OIE).
Diagnostic Pathways: A summary investigation for the diarrhoea was negative, including auto-immunity for inflammatory bowel disease, faecal culture, stool ova and parasite test, pancreatic elastase, and HIV screening. Faecal calprotectin was elevated (336 µg/mg). An upper endoscopy, ordered to check for OIE and performed 30 days post-discharge, revealed no changes. The diarrhoea never recurred after one year of follow-up, so no further testing was made.
Discussion and Learning Points: Rapid symptom remission after hospitalization suggests an external cause such as diet or medication. As OIE is a possible adverse effect in chronic users of olmesartan, this was our first hypothesis. The endoscopy, performed one month after discharge, was likely out of timing for detection of the typical changes. Otherwise, the clinical picture is fully compatible, with the time to develop symptoms, negative investigations, prompt remission on stopping olmesartan, and quick recurrence when reintroducing. This case highlights the importance of considering adverse drug reactions, and OIE in particular, when assessing patients on medication.

1384 / #EV0600

TRANSPLANTION IN AUTOIMMUNE HEPATITIS: A SINGLE-CENTRE EXPERIENCE

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Background and Aims: Autoimmune hepatitis (AIH) is a chronic liver disease that, when left untreated, results in cirrhosis, liver failure and death. Liver transplantation (LT) is an effective treatment but, and despite good results, recurrence of autoimmune disease in allograft is relatively common. Our aim was to assess the outcomes of patients transplanted at our centre for AIH and the impact of recurrence on patients' disease.
Methods: We performed a retrospective and observational study of patients who underwent LT for AIH between 1980 and 2020 at our centre.
Results: 31 patients with AIH were transplanted during this period, with a predominance of female gender (87.1%) and a mean age of 34.1±16.1 years. The median interval between diagnosis and transplant was 59.3 months, with decompensated cirrhosis being the main reason for transplantation (62.1%). The combination of prednisolone, tacrolimus and mycophenolate mofetil was the most used immunosuppressive therapy (61.3%), followed by the combination of prednisolone and tacrolimus (16.1%). Ten patients (32.3%) had AIH recurrence after transplantation. Overall survival following 1 year after LT was 96% and 84% after 10 years, with no impact of AIH recurrence on patient survival (16.1 years; 95%CI 11.4-20.7 vs 21.5 years; 95%CI 19.2-23.9; p=0.334).
Conclusions: Although recurrence is frequent, it does not seem to have an impact on patient survival, with liver transplantation being a good treatment option for patients with AIH cirrhosis with good long-term results.

 DOI: 10.12890/2022_V9Sup1

1400 / #EV0601

AUTOIMMUNE HEPATITIS – A 40 YEAR SINGLE-CENTRE EXPERIENCE

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Background and Aims: Autoimmune hepatitis (AIH) is a chronic liver disease characterized by hypergammaglobulinemia, circulating auto-antibodies, typical histological findings and favourable response to immunosuppression. When untreated it can lead to cirrhosis, liver failure and death. Our aims were to evaluate the features of AIH patients alongside their response to immunosuppressive treatment and prognosis.

Methods: A retrospective and observational study of patients diagnosed with AIH in the Internal Medicine and Paediatrics Departments between 1980 and 2020.

Results: A total of 183 patients were included, with a predominance of females (85.8%) in a 6:1 ratio and a median age of 41.5 years. Of these, 105 (57.4%) presented at diagnosis with nonspecific symptoms or asymptomatic, followed by acute hepatitis (28.4%) and complications of cirrhosis (9.3%). Interface hepatitis was the commonest histological finding (95.5%). IgG was increased in 80.1% of the cases and, according to the autoimmunity pattern, 90.5% of the cases corresponded to type 1 AIH. Immunosuppression with corticosteroids was started in 91.3% of patients. Association with azathioprine was needed in 65.6%. At 6 months, 80.7% had induction of remission, but only 64.8% maintained remission after 1 year. Transplant-free survival was lower in patients with cirrhosis at diagnosis, 18.38 years (95% CI: 0.81-35.95) vs 27.75 years; (95% CI: 14.98-40.5); $p<0.001$. 16.9% of patients required liver transplantation, the main cause being decompensation of cirrhosis (62.1%).

Conclusions: Timely diagnosis is of vital importance since, not only cirrhosis at diagnosis, but also initiation of immunosuppressive treatment has an important impact on these patients outcomes and quality of life.

1111 / #EV0602

SB-IPMN – A RARE ETIOLOGY OF ACUTE PANCREATITIS IN A PATIENT WITH GUILLAIN-BARRÉ SYNDROME

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Case Description: We present the case of a 37-year-old female with a medical history of two recent acute pancreatitis, submitted to laparoscopic cholecystectomy and a MR Cholangiography with evidence of a cystic image in the head of the pancreas, with no further assessment since it was suggestive of pseudocyst. The patient was admitted in the A&E after progressive loss of sensitivity and muscle strength on the four limbs, with distal-proximal progression, dysphonia, fatigue and weight loss of 6 Kg in two months. She also presented with steatorrhea and abdominal pain since the first episode of pancreatitis, worsened by food ingestion.

Clinical Hypothesis: Neurologic exam was suggestive of acute polyneuropathy, particularly typical of Guillain-Barré syndrome (GBS). Bloods revealed macrocytic anaemia, CRP 2.64 mg/dL and elevated gamma glutamyltransferase and total bilirubin. The patient completed five days of Immunoglobulin with neurological improvement, but with worsening abdominal pain and raising amylase and lipase, with significant decrease of haemoglobin (minimum 4.7 g/dL). Diagnosis of haemorrhagic pancreatitis was made during laparotomy, with two lesions of the pancreas more likely to be the origin of the bleeding.

Diagnostic Pathways: Eco-endoscopy identified a pancreatic cyst compatible with side-branch intraductal papillary mucinous neoplasm (SB-IPMN), with indication to follow-up. Cytology and CA 19.9 of the ascitic fluid were negative. Two weeks later the patient was medically fit for discharge.

Discussion and Learning Points: The SB-IPMN is a rare pre-malignant lesion, usually detected as an incidentaloma, causing 12-67% of acute pancreatitis. Even though there's no evidence of relation between SGB and SB-IPMN, further investigation of a common autoimmune genesis should be considered.

230 / #EV0603

CHARACTERIZATION OF ADULT PATIENTS WITH DIGESTIVE HEMORRHAGE ACCORDING TO EVALUATION SCALES IN AN INSTITUTION OF HIGH COMPLEXITY IN MEDELLIN COLOMBIA, 2018

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Background and Aims: To characterize patients with gastrointestinal hemorrhage according to three evaluation scales.

Methods: An observational, descriptive, cross-sectional study that included adult patients with gastrointestinal hemorrhage,

 DOI: 10.12890/2022_V9Sup1

hospitalized in a highly complex institution in the city of Medellin in 2018 with clinical evidence of the variables that allowed the application of the Rockall index, the Glasgow-Blatchford scale and the AIMS65 classification. A non-probabilistic sampling of consecutive cases was carried out. The source of information was the medical records, the analysis was performed in Microsoft Excel where absolute and relative frequencies were calculated, expressed in percentages and proportions.
Results: 454 patients were included, there was a predominance of males with 53.3% (242), and median age was 59.5 years. 77.2% (348) of the patients were attended in general hospitalization. Regarding hemorrhage, 79% (346) had a location in the upper digestive tract. 56.8% (256) of patients presented melena, and 57.6% (261) anemia. 20% (90) of the patients had a score of 4 on the Rockall index. Regarding the Glasgow-Blatchford scale, 91% (413) of the patients obtained a score >0. 44.1% (200) of the patients had a score of 1 in the AIMS65 classification. Regarding mortality, 6.9% (31) died from bleeding.
Conclusions: Upper gastrointestinal hemorrhage is the main gastroenterological emergency that must be identified and classified in a timely manner to avoid complications and improve patient care.

318 / #EV0604

MULTIPLE PEPTIC ULCERS

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Background and Aims: We recently diagnosed a case of multiple peptic ulcers ,after which we searched for other cases.
Methods: We reviewed the medical records at our hospital since establishment. We also performed a literature review with keywords “multiple peptic ulcers” to identify relevant studies or case reports, based on PubMed databases from January 1 st , 2014 to July 31 th , 2021.
Results: We found no other cases. A 63-year-old man was transferred to our hospital with melena and disturbance of consciousness. His past medical history was unknown, but he had appetite loss and 15 kg weight loss. He showed tachycardia and low blood pressure. On physical examination, he was emaciated and presented with jaundice, abdominal extension, and many scratch marks. A blood test showed anemia, liver failure, renal dysfunction, hypercoagulability, elevated ammonia, and metabolic acidosis. A contrast-enhanced computed tomography showed several liver tumors 3 cm in size, peripheral bile duct dilatation, and hepatic capsular depression in delayed enhancement, together with para-abdominal lymph node swelling and ascites. An esophagogastroduodenoscopy revealed multiple A1 stage gastric and duodenal ulcers 0.5-1 cm in size. We informed his family of his diagnosis of end-stage cholangiocarcinoma, hepatic renal syndrome, and hepatic encephalopathy due to decompensated cirrhosis, together with multiple peptic ulcers, and they chose palliative care. He died on the 9th hospital day.
Conclusions: We report the first known case of multiple peptic ulcers.

 DOI: 10.12890/2022_V9Sup1

AS08. GERIATRICS AND MULTIMORBIDITY

1382 / #EV0605

COMORBIDITIES AND HEALTH-RELATED QUALITY OF LIFE IN ELDERLY PATIENTS WITH KNEE OSTEOARTHRITIS

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Background and Aims: The prevalence of knee osteoarthritis (KOA), a major cause of mobility and functional disability rapidly increases with age. Comorbidity is common in patients with OA and can have a synergistic detrimental effect on function and quality of life. Accordingly, our primary objectives were to estimate the prevalence of and the association of comorbidities with health-related quality of life (HRQOL) in elderly KOA patients.

Methods: A total of 70 participants s aged ≥65 years were recruited. Demographic and comorbidity data was recorded. OA was classified into four subgroups based on the presence or absence of pain and radiographic OA (ROA): non-OA (Pain-/ROA-), pain only (Pain+/ROA-), ROA only (Pain-/ROA+), and painful ROA (Pain+/ROA+). Participants with a Kellgren-Lawrence grade ≥2 were categorized as having radiographic KOA. HRQOL measurements assessed included EuroQOL visual analogue scale (EQ-VAS) scores and the five dimensions and summary index of the EuroQOL-5 dimension (EQ-5D index). All participants underwent a comprehensive geriatric assessment (CGA). Multivariable logistic regression and linear regression analyses were performed.

Results: After adjustment for socioeconomic and lifestyle characteristics, diabetes mellitus, hypertension, dyslipidaemia and kidney disease were significantly associated with KOA. Lower EQ-5D indices were associated with KOA compared with the non-OA group. Compared to the non-OA group, subjects with low EQ VAS score were more likely to have pain only ($p<0.001$), painful ROA ($p<0.001$) and ROA ($p<0.010$). Painful ROA was significantly associated with limitations in physical activity, $p<0.001$,

Conclusions: Comorbidities were significantly associated with KOA after adjustment. Painful KOA was associated with decreased physical activity and lower HRQoL

1421 / #EV0606

PREVALENCE OF PERIPHERAL VASCULAR DISEASE IN A COHORT OF OLDER CHRONIC KIDNEY DISEASE PATIENTS

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Background and Aims: Both peripheral arterial disease (PAD) and chronic kidney disease (CKD) are prevalent in the general population, especially in older patients. Cardiovascular disease is a major source of morbidity and mortality for patients with CKD. PAD is a strong predictor of coronary artery disease and a risk factor for mortality in the general population. Accordingly, the purpose of this study was to describe the prevalence of PAD and assosciated cardiovascular comorbidity in older patients with CKD.

Methods: We enrolled 100 patients (57 males and 43 females), of mean age 70.2 (6.4) years diagnosed with CKD stage 3 or above. Demographic data including disease duration, smoking status, comorbidities was collected. All participants underwent a complete geriatric assessment (CGA). Prevalence of PAD was estimated by measuring the ankle-brachial index (ABI). Patients with a ABI <0.9 were said to have PAD.

Results: The prevalence of PAD was 33%. Hypertension, diabetes mellitus, dyslipidaemia, coronary artery disease and smoking was present in 67%, 59%, 57%, 40% and 31% of the patients respectively. Patients with PAD were more likely to be older, have hypertension, diabetes mellitus, be smokers, have a higher albumin creatinine ratio and C-reactive protein compared to the non-PAD patients. Thirty-two % had grade 3, 30% had grade 4 and 38% had grade 5 CKD. Intermittent claudication and ischaemic ECG changes were significantly more in the PAD as compared to the non-PAD cases.

Conclusions: These findings indicate PAD is frequent in older patients with CKD and that patients with both diseases have a higher risk for complcations.

 DOI: 10.12890/2022_V9Sup1

1439 / #EV0607

PREVALENCE AND ASSOCIATED RISK FACTORS OF CHRONIC KIDNEY DISEASE IN POSTMENOPASUAL WOMEN

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Background and Aims: The evolution of chronic kidney disease (CKD) often depends on several risk factors such as the old age, obesity, female gender, cardiovascular disease, hypertension, hyperuricemia, diabetes mellitus and non steroidal antiinflammatory drugs (NSAIDs) usage. Despite improvement in the management of CKD, there is ongoing discrepancy about the prevalence of CKD in postmenopausal women. This study was designed to investigate CKD prevalence and related risk factors in postmenopausal women.

Methods: We screened 100 postmenopausal women for the prevalence of CKD and associated risk factors such as CVD. Postmenopausal status was defined as a self-reported physiological condition of stoppage of menstrual bleeding for 12 consecutive months.CKD is defined as an eGFR less than 60 mL/min/1.73 m^2. Through a structured interview questionnaire we collected collect socio-demographic and comorbidity data. Routine laboratory analysis included complete blood count, blood glucose, serum lipid,blood urea, serum creatinine and serum uric acid levels. Estimated glomerular filtration rate (eGFR) was calculated by the investigator using by Cockcroft-Gault formula: eGFR (mL/min/1.73 m^2) = ([140-age] × weight in kg)/(serum creatinine in mg/dl × 72) × 0.85.

Results:Themeanageofwomenwith CKDwas65.6(7.6)yearswhich was staistically significant compared to women without CKD while patients without CKD [61.3(7.8) years]. The prevalence of CKD among postmenopausal women was 21%. CKD in postmenopausal women was associated with smoking status, residency, level of education, diabetes mellitus, hypertension,cardiovascular disease, hyperuricaemia,hyperlipidaemia, urinary tract infections, osteoarthritis and NSAID use.

Conclusions: Screening of all postmenopausal women for the risk of developing CKD,should be incorporated in clinical practice.

1446 / #EV0608

COMPREHENSIVE ASSESSMENT OF OLDER PATIENTS TAKING MULTIPLE DRUGS AND ASSOCIATED ADVERSE EFFECTS

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Background and Aims: The increase in the older adult populations is a worldwide phenomenon. With the ageing of the populations comes the increase of age-related chronic diseases resulting in multimorbidity and in turn the need for mutiple medications. Polypharmacy is often associated with adverse effects and negative health outcomes. Accordingly, the purpose of the present study was to determine the sociodemographic characteristics of older patients on multidrug prescriptions, to assess the prevalence of adverse drug effects and to evaluate the effects of polypharmacy on clinical outcomes.

Methods: 100 patients (52 females, 42 males, mean age 70.6 (6.82) years admitted to the Geriatric Department of our institution were enrolled. Demographic data including age, gender, BMI, disease duration and comorbidities was collected. Details of medications used were collected, A comprehensive geraitric assessment (CGA) was performed for all participants. Adverse drug event (ADEs) including prevalence, types, risk factors for ADEs and healthcare consequences of ADEs were recorded. Polypharmacy was defined as the concomitant use of 5 or more drugs.

Results: The mean number of prescribed drugs was 9.0 (3.2). The prevalence of the most common conditions were hypertension 59%, ischaemic heart disease 33%, diabetes mellitus 43%, anaemia 13%, and peptic ulcer disease (22%). The most frequently used classes of medications were analgesics, anti-hypertensives, antiplatelet agents, hypoglycemic agents, gastrointestinal agents and anti-hyperlipidaemics. ADEs was reported in 39% of patients. Polypharmacy was associated with disability on activities of daily living, cognitive impairment, malnutrition and increased prevalence of falls.

Conclusions: Polypharmacy is very common and is associated with adverse outcomes in older patients.

 DOI: 10.12890/2022_V9Sup1

1449 / #EV0609

PREVALENCE AND ASSOCIATED RISK FACTORS OF HEPATITIS C IN OLDER EGYPTIAN PATIENTS

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Background and Aims: Hepatitis C virus (HCV) is a major global health challenge; it is estimated that more than 80 million people are chronically infected worldwide; with 3-4 million new infections and 350,000 deaths occurring each year because of HCV related complications. Egypt has the highest prevalence of HCV in the world. HCV infection prevalence increases with advanced age (75 % of anti-HCV positive individuals are older than 65 years), yet research on acquisition, risk factors and complications is limited among older adults. Accordingly, we sought to determine the prevalence of hepatitis C and associated risk factors as well as comorbidities with hepatitis C in older (60 years and beyond) egyptian patients.

Methods: We recruited 100 patients (42 females, 38 males) aged 60 years and above who presented to the liver centre of our institution. Demographic data on age, gender, occupation, disease duration, smoking status, medications, surgical operations, cupping, tattoos, shaving at barbers, blood transfusion and comorbidities such as diabetes mellitus were collected. The imaging done included ultrasonography of the abdomen and triphasic CT of the liver. HCV RNA Quantitative PCR was used to detect anti-HCV antibodies.

Results: The prevalence of hepatitis C antibodies was 21%. The source of infection was *Schistosomiasis* infestations, medical procedures, blood transfusions, dental procedures and idiopathic in 45%,19%, 19%14%, 4%, respectively. Hepatic cirrhosis was present in 21%; 19% had both cirrhosis and ascites. The most common comorbid condition was diabetes.

Conclusions: HCV infection is prevalent in older compared to younger adults. Timely screening, diagnosis and treatment is essential to avoid complications.

838 / #EV0610

FEELINGS AND THOUGHTS ABOUT MULTIMORBIDITY: A MULTINATIONAL SURVEY IN EUROPEAN INTERNISTS

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Background and Aims: Patients with multimorbidity (MM) are emerging as a prevalent population. Nevertheless data about perspectives of European internists regarding MM are scarce. Our aim was to assess feelings and thoughts of European internists by means of a homemade survey.

Methods: The 23-item online survey was launched and disseminated through EFIM and all federated national societies during March-April 2021. A descriptive analysis (number and percentages, as well as measures of central distribution and dispersion was performed by means of SPSSv25.

Results: 790 internists (53% women, 45[35-56] year-old) answered the survey. Most of them worked in tertiary teaching hospitals (423, 53%), and lived mainly in Spain (334, 42%), France (122, 15.4%), and Portugal (120, 15.2%). Their usual area of work were wards and/or outpatient clinics (523, 67%), and they were dedicated mainly to general internal medicine (707, 89.5%), geriatrics (233, 29.5%), and cardiovascular medicine (200, 25.3%). The main age of their patients was 75-85 years. They were familiar with the terms 'comorbidity' (34%) and 'polypathological patient' (26%). Most difficult issues to handle were polypharmacy (65%), and transitional care (62%). Only 52%, and 34% used structured

 DOI: 10.12890/2022_V9Sup1

prognostic stratification, and comprehensive geriatric assessment, respectively. 65% of them did not receive any MM training in their medical education; 38% and 24% felt, that MM is currently not well addressed in education, nor in internal medicine programs.
Conclusions: European internists were most familiar with the term 'comorbidities',and 'polypathological patients',rather than with 'multimorbidity'. Differences were detected in comprehensive geriatric-, pharmacological-, and prognostic assessment.There was a generalized awareness that MM might be insufficiently addressed in medical education and in Internal Medicine training programs.

521 / #EV0611

ASSESSMENT AND UTILITY OF THE SAME-TT2R2 SCORE IN NONAGENARIANS PATIENTS: CAN THIS TOOL HELP US TO REPRESENT THE REALITY OF THESE PATIENTS?

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Background and Aims: Assess the main clinical factors that affect the quality of anticoagulation and to evaluate the predictive value of the SAMe-TT2R2 score for patients older than 90 years. Assess the prognostic possibility of this scale for adverse events in nonagenarian patients.
Methods: Observational, cross-sectional, retrospective study that included 91 patients evaluated in-hospital with nonvalvular atrial fibrillation and who were 90 years of age or older, during the period established from January 2020 to December 2020. Data were retrospectively collected from background and information of interest.
Results: A total of 91 patients were recruited, who met the inclusion criteria. 59.78% were women. Age: 92.37% [Interquartile range IQR (94.53-97.17)]. a median CHA2DS 2 -VASc score of 4 (IQR: 3-5; therefore 92.67% with CHA2DS2-VASc score ≥2), a median HAS-BLED score of 4 (IQR: 4-5) and a HAS-BLED score ≥4 in 69.18%. History of previous bleeding: 36.73%. SAMe-TT2R2 mean score: 5.73±2.01. Charlson Index: 8.43 (IQR: 7-12). History of stroke and / or TIA: 26.53%. Treatment at evaluation: ACODS: 26.09%; ASA: 40.22%, antivitamin K (AVK): 14 , 13%. Mortality at 6 months after assessment: 54.38%. Adverse effects: SAMe-TT2R2> 5: RR VKA bleeding versus DOACs 95% CI 0.85-2.14. RR anticoagulation vs antiplatelet 95% CI: 0.79-4.21.
Conclusions: In this cohort, the SAMe-TT2R2 score did not have a significant capacity to assess the probability of good control over anticoagulation or the appearance of adverse effects, even after adjusting the selection cut-off point. A high SAMe-TT2R2 score was associated with higher mortality during follow-up.

1026 / #EV0612

DESCRIPTIVE STUDY OF PARACENTESIS PERFORMED IN THE DAY HOSPITAL OF A SPECIALTY HOSPITAL OF THE ANDALUSIAN HEALTH SERVICE

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Background and Aims: To describe the etiology of periodic evacuative paracentesis performed in Internal Medicine Day Hospital (IMDH).
Methods: We conducted a retrospective descriptive study whose unit of analysis was the histories of patients undergoing evacuative paracentesis in our IMDH in the time period between January 1, 2019 and June 1, 2020, reviewing their clinical history and collecting demographic and clinical data.
Results: A total of 292 periodic evacuative paracenteses were performed in 48 different patients over a period of one and a half years. The mean population age was 65.9, 65% women. Of the total number of patients, 54.16% (26 patients) had tumor ascites and belonged to the Palliative Care or Oncology Support Unit; requiring 28.7% of the techniques (84 procedures). The tumor etiology was: 46.15% for digestive neoplasms, 38.46% for gynecological neoplasms and 3.84% for breast and hematological neoplasms. On the other hand, 39.58% (19 patients) were referred from the Digestive Service, and required 158 procedures, which accounted for 54% of the techniques. All of them had cirrhotic decompensation, the etiology being: 5 due to hepatitis C virus, 9 due to enolysis, 1 mixed cause, 1 due to primary biliary cirrhosis and 3 had cryptogenetic cirrhosis. Finally, only 6.25% (3 patients) attended for cardiac ascites, which accounted for 13.3% of the evacuating paracentesis with a total of 50 techniques.
Conclusions: The etiology of ascites refractory to diuretics is diverse, being the patients who can benefit from periodic evacuating paracentesis in IMDH of different Services.

236 / #EV0613

DYSPNOEA IN THE ELDERLY

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Case Description: 89-year-old woman, with history of hypertension, diabetes, heart failure due to ischemic cardiopathy and urotelial cancer with pulmonary metastasis, was presented in the emergency department with dyspnoea. No other relevant information was given apart from refusal to eat in the previous

 DOI: 10.12890/2022_V9Sup1

week. She was hypoxemic, dehydrated and slightly lethargic. Blood tests showed increased inflammatory markers, anemia and acute kidney injury AKIN I, probably due to dehydration. SARS-CoV-2 test was negative. Thoracic radiography showed enlargement of the cardio-thoracic index, hipotransparency of the inferior half of the right hemithorax and a diffuse nodular cotton-like pattern.
Clinical Hypothesis: Dyspnoea is a frequent and unspecific presenting symptom in the emergency department, especially in the elderly population, often associated with hypoxemia, being by itself an independent factor of morbidity and mortality. Given the presenting symptoms and the radiological exam, doubts were raised about the cause of hypoxemia.
Diagnostic Pathways: It was assumed a pneumonia and treated empirically. Despite the respiratory improvement, the patient evolved with fluctuation of the level of consciousness and feeding capacity, probably related with the known metastatic cancer. She died during hospitalization.
Discussion and Learning Points: Elderly patients have diminished physiological reserve as well as an array of previous health problems that combined with any intercurrence, can result in very severe clinical cases and became important diagnostic challenges. We consider this clinical case illustrative of the multiplicity of diagnosis associated with dyspnoea in the elderly population.

644 / #EV0614

A HEALTHY LIFESTYLE IS ASSOCIATED WITH LOWER ARTERIAL STIFFNESS IN A METABOLICALLY HEALTHY ELDERLY POPULATION WITH OVERWEIGHT OR OBESITY

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Background and Aims: Arterial stiffness (AS) is linked with the development of cardiovascular and non-cardiovascular diseases. Our aim was to evaluate whether maintaining a healthy life from the earliest ages to old age, based on Mediterranean diet (MedDiet) and regular practice of physical activity (PA) are associated with AS in an elderly, metabolically healthy with overweight or obesity (MHOe) population.
Methods: A study in MHOe population (aged ≥65 years) with a Body Mass Index (BMI) >27 kg/m^2 who had <1 of the metabolic syndrome criteria, was conducted. Blood pressure, height, weight, BMI, waist/height ratio, practice of PA, MedDiet adherence and food intake along with carotid-femoral pulse wave velocity (cf-PWV) were analysed.
Results: 158 MHOe subjects were recruited (109 of them were young-old, age: 69.3±2.8 years and BMI: 32.0±3.9 kg/m^2 and 49 old-old, age: 78.1±2.9 years and BMI: 30.7 ± 3.6 kg/m^2). All population showed a strong adherence to the Med Diet due major consumption of homemade meal, olive oil and lean meats and an important practice of PA. Young-old subjects had a cf-PWV of 9.7±2.2 m/s and old-old subjects, 11.1±4.4 m/s. In all population, a negative correlation between cf-PWV and BMI (r=-0.17, p=0.04) was found. Vigorous PA showed a negative correlation with cf-PWV in all population and in young-old subjects (r=-0.20; p=0.02 and r=-0.22; p=0.03, respectively).
Conclusions: Healthy lifestyle habits based on MedDiet adherence and regular practice of PA are associated with lower AS in a metabolically healthy population with overweight or obesity older than 65 years.

85 / #EV0615

USE OF PROPHYLACTIC HEPARIN IN MEDICAL BEDRIDDEN PATIENTS

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Background and Aims: The efficacy and safety of low molecular weight heparin (LMWH) for preventing thromboembolic events are well documented in surgical patients. There are conflicting results in medical wards. Our objective is to evaluate the clinical efficacy and safety of LMWH in thromboprophylaxis in bedridden patients.
Methods: We performed a retrospective cohort study that included bedridden patients admitted to an internal medicine ward from 01/01/2019 to 31/12/2019. We excluded patients who were on anticoagulants or had surgery in the three months before the admission. To evaluate the efficacy and safety of LMWH, we divided patients based on the exposure to the use of prophylactic LMWH and collected clinical and demographical data. Outcomes of interest were clinically significant venous thromboembolic events during hospitalization and up to 2 months after discharge, in-hospital mortality, and bleeding events during the hospitalization. We used STATA® for statistical analysis.
Results: Of 104 patients, 31 were under LMWH and 71 with non-pharmacological measures. Patients in the LMWH group underwent physical therapy. Although we found a lower incidence of VTE and higher mortality in the LMWH group, these were not statistically significant. Deaths were unrelated to VTE or hemorrhage, and bleeding events were similar between the two groups.
Conclusions: The use of LMWH in our cohort did not show a significant improvement on the outcomes of interest. We found

 DOI: 10.12890/2022_V9Sup1

that despite a higher incidence of VTE, there was no difference in mortality. We think that this study is particularly relevant since the included patients were bedridden theoretically with an increased risk for VTE.

973 / #EV0616

TRIPLE CAVITATION ABSCESS, A CASE REPORT OF A KLEBSIELLA PNEUMONIAE ABSCESS

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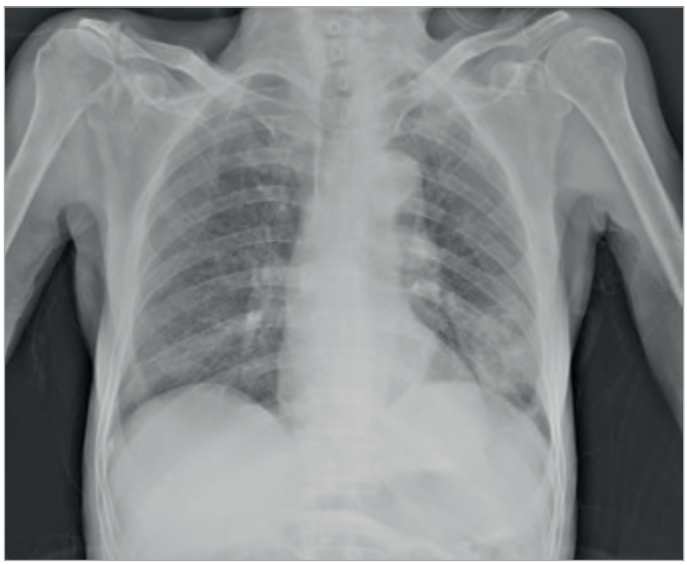
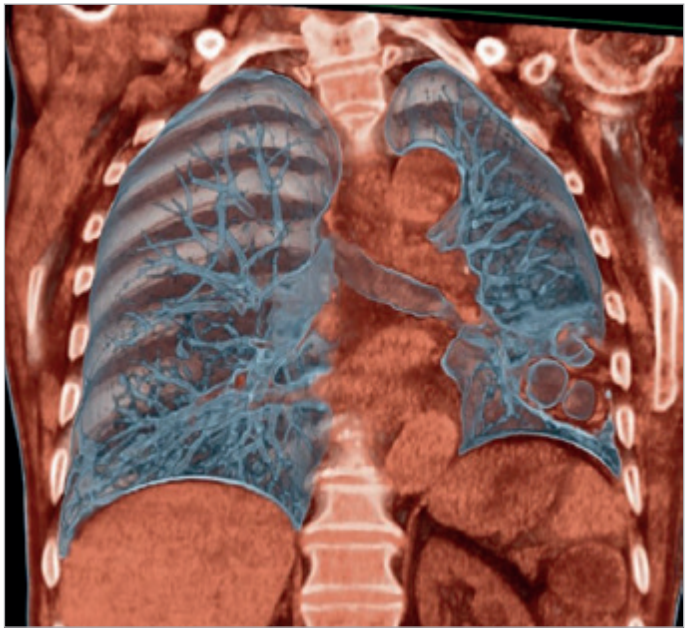
Case Description: A 81 year-old man confined to bed and living in a elderly care center, with history of advanced demetia, medicated with mirtazapina 30 mg, memantine 10 mg bid and donepezil 10 mg, was admitted in the ER due to asthenia with one week of evolution. He presented with polypnea, fever (38ºC), diminished vesicular breath sound on the base of the left lung. Blood test showed leukocytosis (14,500x108/L) whith neutrophilia (97%), elevated C-reactin protein (19 mg/dL); ABG (FiO2 21%) with respiratory alkalosis, hypoxemia, and raised lactic acid (2.5 mmol/L). Chest X-ray showed subtle area of radiolucency superimposed on left inferior lobe consolidation (Figure 1).
Clinical Hypothesis: Cavitating pneumonia.
Diagnostic Pathways: Blood and sputum cultures where collected and amoxicilin/clavulanate was initiated and the patient was admitted. Blood cultures identyfied *Klebsiella pneumoniae* sensitive to piperaciclin/tazobactan. Inicially with clinical and analytical improvement. Dysfagia and aspiration was reported during hospitalization so nasogastric tube was placed. Other medical measures to avoid aspiration, had already been taken. Chest CT described a triple cavitated abscess (5 cm wider) in the left inferior lobe, whithout gas-fluid levels. Patient was considered unfit to surgery (Figure 2). Despite aimed antibiotherapy and resolution of left sided pneumoniae, patient died due to hospitalized acquired pneumonia on the 20th day of admission.
Discussion and Learning Points: Aspiration pneumoniae are frequent in elderly patients, particulary in patients with reduce consciousness, dementia, dysphagia, poor dental care and diabetes. Most lung abscesses are due to aspiration complications. *Klebsiella pneumoniae* is a rare know agent of necrotizing pneumonia that causes cavitation and abscess formation. Abscesses wider than 4 cm are associated with higher mortalitaly rates.



#EV0616 Figure 1.



#EV0616 Figure 2.

360 / #EV0617

HEART FAILURE IN THE ELDERLY PATIENT WITH PRESERVED, BORDERLINE AND REDUCED EJECTION FRACTION: ARE THERE DIFFERENCES WITH NON-ELDERLY PATIENTS?

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Background and Aims: Heart failure (HF) has been recognized as a pandemic and is a serious clinical and health problem associated with significant mortality, morbidity and expenditure

 DOI: 10.12890/2022_V9Sup1

on healthcare, especially among older people.
Methods: A registry was made with the significant variables in patients admitted for HF from January 2012 and December 2016. Data was obtained from all those patients >75 years with subsequent follow-up. The patients were organized into 3 different groups: hospitalized patients with heart failure with preserved ejection fraction (HFpEF) (EF≥50%), HF with borderline ejection fraction (HFbEF) (EF41%-49%), and HF with reduced ejection fraction (HFrEF) (EF≤40%).
Results: A total of 282 patients were included: 125 (44.3%) had HFpEF, 26 (9.2%) had HFbEF, and 131 (46.5%) had HFrEF. Overall, median survival was 2.1 years. In risk-adjusted survival analysis, all 3 groups had similar 5-year all-cause mortality (HFrEF 75.3% vs. HFpEF 75.7%; hazard ratio(HR): 0.99[95% confidence interval (95%CI): 0.958-1.022]; cardiovascular disease mortality HFrEF 80.7% vs. HFpEF 74.6%; (95%CI: 1.231-2.51; HR:1.76). In risk-adjusted analyses, the composite of all-cause mortality and rehospitalization was similar for all subgroups but we observed cardiovascular and HF readmission rates were higher in those with HFrEF and HFbEF compared with those with HFpEF.
Conclusions: Among hospitalized patients with HF, elderly patients across EF categories have a lower 5-year survival than patients <75 years. Our patients are at high risk of cardiovascular admission and HF. In our cohort there are no differences in all-causes mortality, but there are adjusted for cardiovascular mortality. These findings underscore the need to improve the treatment of elderly patients with HF, regardless of the EF range.

405 / #EV0618

HEART FAILURE RISK AND VITAMIN D DEFICIENCY IN THE ELDERLY. EXPERIENCE OF A HOSPITAL IN THE SOUTH OF SPAIN

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Background and Aims: Vitamin D deficiency is prevalent in heart failure (HF), but its relevance in early stages of heart failure (HF) is unknown. We tested the association of 25-hydroxyvitamin D [25(OH)D] and significant variables.
Methods: A cross-sectional study with an analytical approach was employed. Clinical data were collected from the elderly (Patients >75 years) from January 2012 to July 2017. We measured 25(OH) D serum levels in outpatients with risk factors for history of HF. To analyse the association between vitamin D deficiency and risk of HF, we used the bivariate logistic analysis, followed by analysis through the multivariate logistic regression model.
Results: We included 187 patients with available 25(OH)D levels. Median 25(OH)D levels were 14.7 ng/mL and HF with left ventricular ejection fraction <50% with was 33.7%. There was a higher risk for lower 25(OH)D levels in association with H and atrial fibrillation (P≤ 0.003). Lower 25(OH)D levels (per 10 ng/mL decrease) tended to be associated with higher 5 year mortality, (P=0.04), hazard ratio (HR)1.62 [1.09; 2.82]. Furthermore, lower 25(OH)D levels (per 10 ng/mL decrease) were related to an increased rate of cardiovascular hospitalizations, P=0.002, HR=1.89 [1.2; 3.0], baseline NT-proBNP, P=0.05, HR=1.51[1.00; 2.7].
Conclusions: Lower 25(OH)D levels were associated with reduced functional capacity in patients with HF and were significantly predictive for an increased rate of cardiovascular hospitalizations and co-morbidities.

2524 / #EV0619

AN UNUSUAL CAUSE OF PARAPARESIS

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Case Description: Man, 93 years, independent. Medical history included arterial hypertension, type 2 diabetes mellitus, atrial fibrillation (anticoagulant: rivaroxaban), cardiac insufficiency, diverticular disease. In the past three days: psychomotor lentification, decreased lower limb muscular strength and bilateral lumbosacralgia (irradiation to anterior thigh faces). Analytically: severe hyponatremia (113 mg/dl) and normal haemoglobin (13 g/dl). Cranioencephalic and lumbar computerized tomography (CT) showed no lesions.
Clinical Hypothesis: Despite ongoing hyponatremia correction, motor recovery was not observed. At day three of hospitalization: prostration, hypotension, marked distension and diffuse abdominal pain. Abdomino-pelvic CT was performed: revealed large bilateral haematomas (right psoas muscle and left psoas/iliac muscles). At this time: confirmed haemoglobin of 5.4 g/dl.
Diagnostic Pathways: Detailed clinical history review with previous unknown fall from own height, three days before admission. Patient was not eligible for surgery. Consequently, treatment was based on anticoagulation suspension, blood transfusions and bed restriction. There was a slow but sustained haematomas regression. In spite of that, functional impairment, marked sarcopenia with autonomy loss, neurosensorial alterations and mental confusion developed. Those persisted on time, rising suspicion of previous neurologic deficit / incipient dementia.
Discussion and Learning Points: Elderly and debilitated patients are susceptible to recurrent falls. Associated trauma may have meaningful impact on morbimortality, even more if they are anticoagulated. Although direct oral anticoagulants have shown low hemorrhagic risk, when compared with vitamin K antagonist, the risk is not zero, as proven with this case.

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 DOI: 10.12890/2022_V9Sup1

545 / #EV0620

PREDICTORS OF MORTALITY IN HOSPITALIZED ELDERLY PATIENTS

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Background and Aims: Several factors have been associated with mortality prediction among older in-patients. Objective was to assess the predictors of mortality in hospitalized elderly.
Methods: In 336 consecutively admitted elderly patients (48.2% women), mean age 81.3±8.2 (M±1SD), patient characteristics were recorded. Comorbidities were assessed by using Charlson co-morbidity index (CCI), frailty by using Clinical Frailty Scale (CFS), activities of daily living by Barthel Index (BI), cognition by Global Deterioration Scale (GDS) and symptom severity at admission by quick SOFA (qSOFA) score. CFS, GDS and BI were estimated for the premorbid patients' status. Parametric tests and multiple logistic regression analysis were applied to identify the predictors of mortality.
Results: 53 patients (15.9%) died during hospitalization. Respiratory ($\chi2=4.502$ $p=0.029$) and neurological diseases ($\chi2=7.722$, $p=0.005$), dysphagia ($\chi2=11.883$ $p=0.001$), pressure or vascular ulcers ($\chi2=24.010$, $p\leq0.001$), walking aids ($\chi2=32.592$ $p\leq0.001$) and BMI beyond normal limits ($\chi2=8.931$ $p=0.002$) were highly associated with mortality. Patients with higher CCI ($U=5.553$, $p=0.003$), GDS ($U=4.754$, $p\leq0.001$), CFS ($U=3118$, $p\leq0.001$) and qSOFA scores ($U=3.798.5$, $p\leq0.001$) and lower BI ($U=4.117$, $p\leq0.001$), were more probable to die during hospitalization. In multivariate analysis the independent predictors of mortality were the qSOFA score at admission ($p=0.003$, OR=1.838, 95% CI 1.233-2.739), and the premorbid frailty status ($p=0.001$, OR=1.522, 95% CI 1.191-1.946).
Conclusions: This study strengthens the perception of frailty and qSOFA score at admission as predictors of mortality in hospitalized elderly patients.

546 / #EV0621

RECEIVER OPERATING CHARACTERISTIC CURVE ANALYSIS OF CLINICAL FRAILTY SCALE AND QSOFA SCORE FOR PREDICTING MORTALITY IN HOSPITALIZED ELDERLY PATIENTS

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Background and Aims: Frailty and quick Sequential Organ Failure Assessment (qSOFA) scores have been used in the past for in-hospital mortality prediction. Aim was to assess the value of Clinical Frailty Scale (CFS) and qSOFA scores for predicting mortality in elderly inpatients.
Methods: In 336 consecutively admitted elderly patients (48.2% women), mean age 81.3±8.2 (M±1SD), patient characteristics were recorded. Frailty was assessed by using Clinical Frailty Scale (CFS) and symptom severity at admission was evaluated by quick SOFA (qSOFA) score. The CFS score was estimated for the premorbid patients' status. CFS and qSOFA were compared between discharged and deceased patients and the Receiver Operating Characteristic Curve (ROC) was used to analyze the prognostic value of these tools.
Results: 53 patients (15.9%) died during hospitalization. The classifiers both have almost similar Area Under the Curve (AUC) scores, with CFS performing slightly better. More specifically, our ROC analysis indicated that both CFS (AUC 0.79 [95% CI, 0.73–0.86] $p<0.001$) and also qSOFA (AUC 0.75 [95% CI, 0.67–0.82] $p<0.001$) showed moderate accuracy for predicting inpatients' mortality. CFS score, at a cutoff point of 5, predicts survival with a sensitivity of 91% and a specificity of 54%.
Conclusions: In geriatric patients, premorbid CFS score has the same, or slightly better accuracy than qSOFA score to predict the outcome of hospitalization and it could be used for this purpose.

398 / #EV0622

FEAR OF FALLING AMONG ELDERLY PATIENTS LIVING IN THE COMMUNITY

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Background and Aims: To assess the relationship between the fear of falling and the risk of falling in outpatients aged≥60 years.
Methods: The study included 51 patients (49F, 2M) aged 72±6 years. The fear of falling was assessed using a short scale for assessing the fear of falling and Falls Efficacy Scale, functional mobility - the "Get up and go" test.
Results: Most of patients (96%) had comorbidities, including ischemic heart disease - 29%, hypertension - 76%, osteoporosis - 30%, osteoarthritis - 88%, diabetes mellitus - 16%, chronic kidney disease - 6%, history of fractures - 41%. Systolic BP was 134±13 mmHg, diastolic BP – 83±8 mmHg, heart rate 66±6 /min. Falls occurred in 75% patients, the average number of falls was 1,8 per patient. Dizziness (47%) was the most frequent symptom before the falling, darkness (14.4%) - the circumstances. In most cases, falls occurred while walking (68%). Suspicion of the frailty was detected in 9% cases. Functional mobility was reduced by 0,8 seconds at the age of 70-79 years, by 1.8 seconds - 80-99 years. The fear of falling was detected in 78% people, average score was 73±10 points. Low fear of falling was detected in 25%, high - in 41% people. Fear of falling correlated with two or more comorbidities ($p=0.004$; $r=0.40$); history of falls ($p=0.001$; $r=0.46$); number of falls ($p=0.001$; $r=0.47$); dizziness ($p=0.05$; $r=0.32$).

 DOI: 10.12890/2022_V9Sup1

Conclusions: The relationship between the risk of falling and the fear of falling was confirmed, especially in older adults with comorbidities, a high risk of frailty, low functional mobility and dizziness.

478 / #EV0623

A CHALLENGING DIAGNOSIS IN SEPSIS PRESENTATION - GALLBLADDER PERFORATION

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Case Description: An 83-year-old female presented with new onset confusion with recent UTI on a background of COPD, atrial fibrillation and cognitive impairment.
Clinical Hypothesis: She developed tachycardia 175, respiratory rate 40, desaturated to 70%, BP 190/101, laboratory investigations showed CRP 311 and WCC 26.4. Initial impression was urosepsis or respiratory sepsis, piperacillin/tazobactam and supportive treatment were commenced.
Diagnostic Pathways: US showed no renal abnormalities, cholelithiasis was noted without evidence of cholecystitis. CXR showed stable parapneumonic effusion in left lower lobe unchanged since last year query empyema. CT thorax was ordered to assess the effusion which revealed air under diaphragm in the right upper quadrant suspicious of gallbladder perforation (GBP) and confirmed on subsequent CT AP.
Discussion and Learning Points: GBP is a rare but life-threatening condition with 12-16% mortality most commonly occur in acute cholecystitis. However, spontaneous GBP can occur in elderly patients secondary to atherosclerosis, vasculitis or focal vasospasm. This case was particularly challenging as the patient was unable to localise any pain. Serum blood testing did not reveal any derangement of liver function tests. It is important to identify the source in septic patient specially when they are not improving on empirical treatments. Early diagnosis and early intervention with fluid resuscitation, IV antibiotics, US guided percutaneous cholecystostomy and cholecystectomy are key to manage GBP.

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685 / #EV0624

IMPACT OF THE SHORT PHYSICAL PERFORMANCE BATTERY (SPPB) ON THE 30-DAY MORTALITY PROGNOSIS IN ACUTE HEART FAILURE DURING THE COVID-19 PANDEMIC: PROFUND-IC REGISTRY

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Background and Aims: Patients with heart failure (HF) often have multiple pathologies and coexisting frailty. The Short Physical Performance Battery (SPPB) test is a tool to identify fragility. A score between 1-4 points on the SPPB is associated with a higher risk of mortality and hospitalization from all causes.
Methods: Observational and prospective study carried out in the cardiology and internal medicine of three hospitals in Spain.Patients admitted in the first 48 hours with a diagnosis of HF,multiple pathologies and with NT-proBNP >300 pg/ml were included.The patients were evaluated using the SPPB scale and the Barthel index (BI). Mortality was observed 30 days after discharge.An analysis of the patients with SPPB> and <5 points was performed,analyzing the prognostic value of SPPB and 30-day mortality in the ROC curve with a 95% CI.SPPS v26.
Results: The patients were N=126. According to the SPPB <5 scale, 70.3% were frail. The 30-day mortality of patients with SPPB <5 was 24.4% versus 12% for SPPB> 5 with p=0.041.The area under the ROC curve to predict death at 30 days with SPPB was 0.708 with a p<0.05. It was observed that 61.1% of the patients considered fragile by SPPB have a BI >60 with p<0.05.
Conclusions: Patients with SPPB <5 had higher mortality at 30 days according to the ROC curve. In patients with BI> 60, it is advisable to assess whether they are frail with PBS. Identifying frailty in the nursing assessment should be a priority to improve the clinical prognosis.

245 / #EV0625

IMPACT OF ACUTE HOSPITALIZATION ON LONG-TERM PHARMACOTHERAPY IN GERIATRIC PATIENTS

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Background and Aims: The Czech Republic is one of the countries with the highest prevalence of polypharmacy among the elderly in Europe (39.9 %, 2018). The aim of our study was to retrospectively

 DOI: 10.12890/2022_V9Sup1

analyze and compare pharmacotherapy of acutely admitted geriatric patients on admission and discharge from standard internal medicine wards according to STOPP/START (Screening Tool of Older Persons' Prescriptions/Screening Tool to Alert to Right Treatment) criteria.
Methods: We retrospectively analysed the pharmacotherapy of geriatric patients admitted acutely to the standard wards of the internal medicine department in the period from 1 January to 31 March 2015. We evaluated the total number of medications on admission and discharge for each patient and the number of STOPP and START medications also on admission and discharge.
Results: 236 patients were non-selectively included in the actual analysis. Polypharmacotherapy (5 or more long-term medications) was observed in 171 patients (72.5%) on admission and in 188 patients (79.7%) on discharge. 51% of patients had more permanently recommended medications on discharge than on admission. Some of the medications according to STOPP criteria had 18 % of patients on admission and 22% of patients on discharge. Indicated medication according to START criteria was not available for 34 % of patients on admission and 39% on discharge.
Conclusions: According to our analysis, the period of acute hospitalization, was not effectively used to optimize the pharmacotherapy of geriatric patients. Despite the high prevalence of polypharmacotherapy, the absence of an indicated drug according to STOPP/START criteria is common.

93 / #EV0626

A CURIOUS CASE OF DYSPHAGIA DUE TO OSTEOPHYTES

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Case Description: An 80-year old male with Parkinson's disease was admitted for community-acquired pneumonia. He also complained of long-lasting difficulty in swallowing which his regular physician attributed to neurogenic dysphagia. Upon closer evaluation, patient mentioned non-acute onset dysphagia starting ten years ago, initially for liquids but now affecting solid foods. The difficulty in swallowing solids was progressive, intermittent and well-localized to his lower neck. Given his symptoms, patient underwent a chest x-ray which revealed a significant tracheal stricture, prompting a non-contrast neck computed tomography that showed an exuberant anterior osteophyte in C4-C5 vertebrae with soft-tissue compression. Barium esophagram revealed delayed but maintained contrast progression.
Clinical Hypothesis: Structural dysphagia due to osteophytes.
Diagnostic Pathways: Patient with Parkinsons' disease with long-lasting dysphagia assumed to be neurogenic dysphagia. Further imaging studies (chest x-ray and non-contrast neck computed tomography) showed a significant an exuberant cervical osteophyte with esophageal compression, thus contributing to patients dysphagia.
Discussion and Learning Points: Although spinal osteophytes are common in elderly patients, dysphagia caused by osteophytosis is rare. This case illustrates how a thorough investigation is crucial in evaluating the cause of dysphagia.

1196 / #EV0627

CHARACTERISTICS OF PATIENTS WITH DEFICIENCY ANEMIA IN A MEDICAL DAY HOSPITAL WITH SPECIAL ATTENTION TO ORAL ANTICOAGULATION

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Background and Aims: Elderly patients with anemia and multimorbidity is a frequent cluster in Internal Medicine departments, both in hospitalization wards and in Day Hospital. We describe patients with iron deficiency anemia followed up in the Internal Medicine Sector Consultation that received intravenous iron (ferric carboxymaltose-FCM) at the Day Hospital (DH).
Methods: From January-December 2020 were performed 437 FCM administration procedures in 255 patients. A retrospective analysis was performed about patients who received at least 1000 mg of FCM.
Results: 105 patients were included, 46% men, with a mean age of 77 years±13 years (range 43-98). 50% were >80, median Hb 9.5±1.5 g/dl.
The most frequent chronic disease was chronic kidney disease (66%), followed by cardiac heart failure (44%) and atrial fibrilation (38%). 38 patients received anticoagulation. Endoscopic studies were performed in 85 patients, a neoplasm was identified in 8.5% of them (7 colon, 2 gastric). In anticoagulated patients group, more digestive lesions (72% vs 63%) and mortality (18 vs 15%) were observed, although they were older patients (81 vs 74 years). In the group of >70 years, a lower number of visits to the Emergency Department (1.85 vs 1.48) and admissions (1.81 vs 1.63) were observed after their management in the DH.
Conclusions: In our group of elderly patients with iron deficiency anemia and multimorbidity, high proportion of digestive lesions were found, most of them benign. Management in HDD is useful in these patients.

DOI: 10.12890/2022_V9Sup1

1018 / #EV0628

MEGACOLON: OGILVIE SYNDROME

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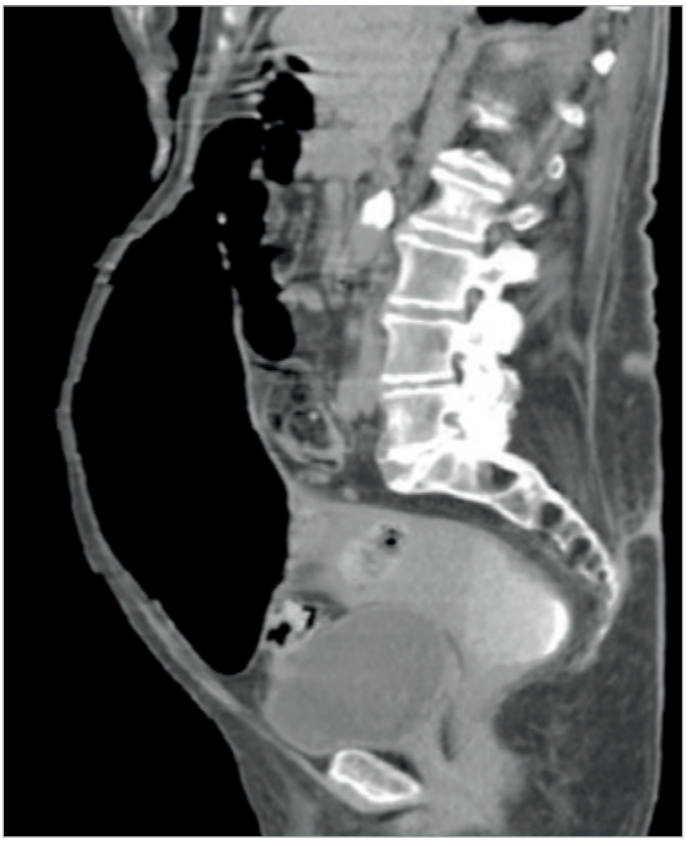
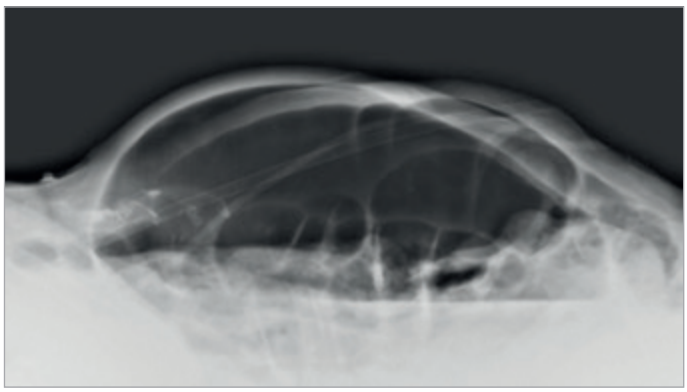
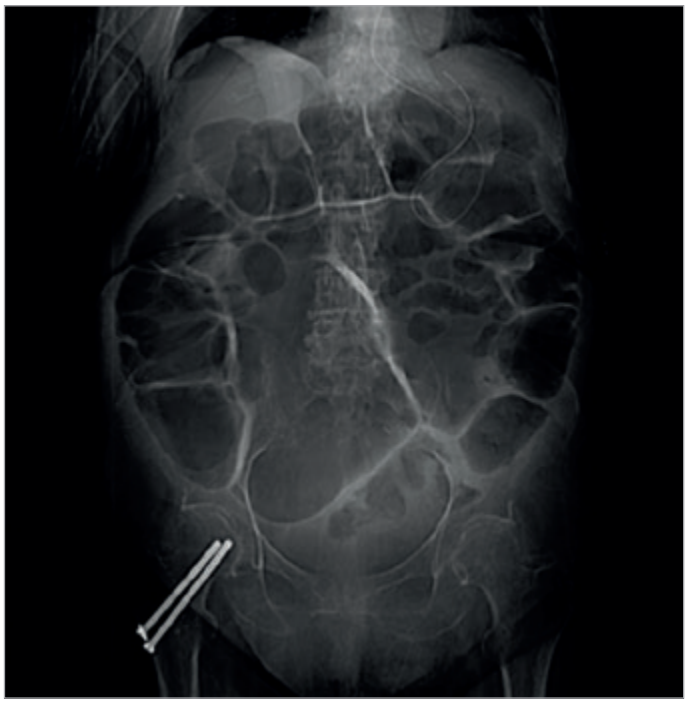
Case Description: A 90 year-old woman with a history of dementia and chronic constipation, treated with paroxetine, quetiapine, tetrabenazine, lactulose and bisacodyl, was admitted for prostration. On observation she had abdominal distension and laboratory works showed increased inflammatory parameters, hyponatraemia and hypoalbuminemia.
Clinical Hypothesis: Ogilvie syndrome.
Diagnostic Pathways: Abdominal CT was performed showing sigmoid dilation with a maximum transverse diameter of 14 cm. No evidence of mechanical obstruction or signs of vascular torsion were evident. Coelic decompression was performed with an enteroclysis tube with improvement of the clinical picture.
Discussion and Learning Points: There is no specific therapy for Ogilvie syndrome. Therapeutic options include medications, decompression and surgery (Figure 1-3).



#EV0628 Figure 1.



#EV0628 Figure 2.



#EV0628 Figure 3.

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IS IT WORTHWHILE TO ADMIT ELDERLY PATIENTS TO THE ICU?

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Background and Aims: To describe the characteristics and prognosis of patients aged 80 years or older admitted to the Intensive Care Unit in our hospital.
Methods: We performed a retrospective observational analysis in which we included patients aged 80 years or older admitted to the ICU in the period 2014-2019. We collected demographic, diagnostic and prognostic variables, such as ICU mortality and 90-day mortality.
Results: We included 460 patients out of a total of 2200 admissions in that period (20.7%). Of these, 263 were men (57.2%) and 197

DOI: 10.12890/2022_V9Sup1

women (42.8%). Mean age was 83.45 (83.19-83.72) and mean stay 3.48 days (2.9- 4.04). No differences in ICU mortality were observed in relation to age, sex or length of stay.
We analyzed the mortality of patients over 80 years of age, obtaining 15.21% compared to the rest of our patients, which was 12.6% (p=0.05). As a long-term prognostic variable we analyzed mortality at 90 days with a result of 18.04% (14.63%-21.86%).
Conclusions: In our hospital, the proportion of elderly patients admitted to the ICU is high, but it has been shown that mortality in this subgroup is not influenced by the length of stay in the ICU, gender or age, with a survival rate at 90 days comparable to that of the rest of the patients. Therefore, there are justified reasons to evaluate the admission of elderly patients to intensive care units.

46 / #EV0630

METABOLIC DISORDERS IN LONG-LIVING PATIENTS WITH CORONARY ARTERY DISEASE

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Background and Aims: Very limited data are available on metabolic disorders in centenarians; therefore, we investigated these pathologies in long-living patients with coronary artery disease (CAD).
Methods: The study enrolled 225 patients > 90 years, hospitalized with coronary artery disease. The majority of patients (67.6%) were women. The mean age of patients was 92.5 (+2.2) years. Blood levels of uric acid, lipids, glucose and body mass index were determined.
Results: Obesity was registered in 31.5% of patients, but grade III obesity – in 1 patient. Overweight was found in 39.1% of patients, normal BMI – in 28.9%, and underweight – in 1 patient. Increase in the blood concentration of triglycerides was noted in 11.2% of patients. Decrease in the HDL cholesterol level was registered in 12.7% of patients. Blood concentration of LDL cholesterol <2.0 mmol/l was observed in 23.3% of cases. Hyperuricemia was detected in 37.3% of patients – in 41.4% of women and 28.8% of men. Increase in the serum creatinine level was registered in 45% of patients. Only 16.5% of patients had glomerular filtration rate >60 ml/min. Women had more frequent hyperuricemia, dyslipidemia and azotemia. Increase in fasting blood glucose level was found in 23.1% of patients, but only 0.9% of patients had glucose >14 mmol/l.
Conclusions: Study results indicate some clinical features of metabolic disorders in long-living patients with coronary artery disease. High proportion of patients with overweight or obesity was found. Frequent hyperuricemia but relatively low levels of atherogenic lipids and glucose were registered.

48 / #EV0631

DIFFERENT EQUATIONS FOR THE ESTIMATED GLOMERULAR FILTRATION RATE IN LONG-LIVING PATIENTS WITH CORONARY ARTERY DISEASE

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Background and Aims: Limited data are available on glomerular filtration rate (GFR) in centenarians, therefore, were compared different GFR equations in long-living patients with coronary artery disease (CAD).
Methods: Cross-sectional study of 270 patients with CAD > 90 years was performed. The majority of patients (66.7%) were women. The mean age of patients was 92.9 (+2.3) years (90-106 years). The estimated GFR was calculated using CKD EPI, MDRD, BIS1, Cockroft-Gault equations.
Results: Mean CKD-EPI GFR was 51.4+14.2 ml/min, MDRD – 50.9+13.4, BIS1 – 38.4+7.7, Cockroft-Gault – 40.6+12.6 ml/min. 27.8% of patients had GFR ≥60 ml/min. The most common stage of CKD was stage 3A, while stage 5 did not occur at all. CKD staging results calculated using MDRD and CKD-EPI equations were similar. However, when using BIS1 equation, GFR of >60 ml/min was not observed in any patient, and the vast majority of patients (64.1%) had stage 3B CKD. At high creatinine levels, there were no considerable differences between GFR according to different equations, while at low and medium creatinine, there were significant differences in GFR, assessed using CKD-EPI and MDRD equations on the one hand and BIS1 and Cockroft-Gault on the other. Differences in GFR, calculated using different equations, did not depend on any other clinical and laboratory factors, except for serum creatinine.
Conclusions: Four GFR equations are not considered interchangeable in long-living patients with CAD. We tend to suggest the CKD-EPI and MDRD equation to calculate GFR in individuals older than 90 years, especially at low and medium creatinine values.

 DOI: 10.12890/2022_V9Sup1

49 / #EV0632

RELATIONSHIP BETWEEN OSTEOPOROSIS AND ANEMIA IN LONG-LIVING PATIENTS WITH CORONARY ARTERY DISEASE

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Background and Aims: Limited and controversial data are available on relationships between osteoporosis and anemia; therefore, we evaluated bone mineral density and its relationship with erythropoiesis in patients with coronary artery disease (CAD) over 90 years of age (long-livers).

Methods: This work was cross-sectional study performed in the War Veterans Hospital. The study enrolled 197 patients (138 women and 59 men) aged 90 to 106 years (mean age 92.4±2.3 years) hospitalized with CAD. Bone mineral density (BMD) was analyzed by dual-energy X-ray absorptiometry.

Results: Patients with osteoporosis had lower hemoglobin and erythrocyte counts compared to patients with normal BMD: hemoglobin - 117.3 and 125.9 g/l, respectively (p=0.003), erythrocytes - $3.8x10^{12}$/l and $4,1x10^{12}$/l (p=0.04), MCV - 88.7 and 93.5 fl (p =0.02), MCH - 30.6 and 31.0 pg (p =0.07). Patients with anemia had lower total BMD (973 and 1036 mg/cm^3, p=0.001), BMD of upper (772 and 845 mg/cm^3, p=0.001) and lower (956 and 1059 mg/cm^3, p=0.0003) extremities, BMD of trunk (805 and 851 mg/cm^3, p=0.004), ribs (607 and 642 mg/cm^3, p=0.005), pelvis (889 and 935 mg/cm^3, p=0.03) and spine (973 and 1034 mg/cm^3, p=0.02). Correlation analysis revealed significant direct relationships between hemoglobin level and all BMD parameters (r=0.3; p=0.00003). Significant correlations were also established between all BMD parameters and erythrocytes MCV (r=0.27; p=0.0001) as well as MCH (r=0.22; p=0.002). Significant direct relationships between blood iron concentration and all BMD parameters were found (r=0.28; p=0.003).

Conclusions: The study results indicate presence of relationships between bone mineral density and erythropoiesis in centenarians with coronary artery disease.

1098 / #EV0633

DELIRIUM AND FALLS AS PRESENTING SYMPTOMS IN ELDERLY FRAIL PATIENTS WITH COVID-19

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Background and Aims: The COVID-19 pandemic brought clinicians together to better understand the clinical presentations and management of this disease. Research regarding older patients showed that these are less likely to have common symptoms, with delirium and falls being more relevant.

Methods: A retrospective study of the presenting symptoms of older-age frail patients admitted to a COVID-19 ward during five months was conducted, selecting patients with a Clinical Frailty Score (CFS) greater than 6 and > 65 years old. Special attention was given to less typical COVID-19 signs and symptoms.

Results: From the 228 patients in this ward, 73 had a CFS greater than 6 (32% of the patients). From these frail patients, 48 presented with delirium (65% of the frail patients vs 11% of the patients with CFS<6), 32 presented with reduced oral intake (43% of the frail vs 8% of the non-frail), and 19 were admitted after a fall (26% of the frail, compared with no patient from the non-frail group). Even though most elderly patients don't usually get febrile, 57 of the frail patients presented with fever (78% of the frail vs 56% of the non-frail). Shortness of breath was less commonly reported in the frail group, given the likely difficulty for frailer patients to report how they feel properly.

Conclusions: This study demonstrates the importance of assessing atypical signs and symptoms in older patients to identify the COVID-19 infection. Guidelines directed to this age group are needed not only for management but also to earlier identification of COVID-19 in older patients.

1947 / #EV0634

AN UNUSUAL IMPROVEMENT OF BARTHEL SCALE AFTER A HOSPITALIZATION PERIOD IN A 88-YEAR-OLD WOMAN

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Case Description: A 88-year-old female was admitted to the outpatient urgency department due to dyspnea and bradycardia, which she stated as having been present for 3 days. She suffered from hypertension, dyslipidemia, double aortic degenerative lesion in moderated grade and atrial fibrillation. Barthel scale at ingress was 35 points.There was no thoracic pain feeling nor history of bleeding. Skin pallor, weakness and asthenia were detected without fever in any case. She felt bad, tendency to sleep, does not respond to the call with local openness, answering questions with incomprehensible sounds. She mobilized four extremities. CPA: Arrhythmia 40-50 with axillary murmur. Crackles on right base and scattered hoarseness were auscultated. There was mild edema in legs.

Clinical Hypothesis: Cronic descompensated cor pulmonale; dilgitalic intoxication; anticoagulant overdose; kidney failure (prerenal insufficiency: diuretic/low water intake/low cardiac output).

Diagnostic Pathways: Blood samper, thoracic radiographs, electrodariogram and a consult to intensive care was made. The evolution was favourable and there was an improvement of her Barthel scale which arise 60 at discharge.

DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: This case report highlights the importance of using peacemaker in making accurate treatment in patients with cardiac problems. In particular, appropriate selection of peacemaker mode, such as VVIR with basic heart rate in 60 bits per minute is necessary to ensure timely treatment and improve patient management. It provides valuable sources of new and unusual information about the manage of bradycardia in elderly to deliver the educational and teaching message that individual treatments always become in successful treatments.

165 / #EV0635

A QUALITATIVE STUDY FOCUSED ON THE SEXUAL WELL-BEING OF PORTUGUESE AND SLOVENIAN OLDER ADULTS

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Background and Aims: Beyond living longer, it is increasingly important to live with more and better health during aging. Sexual well-being (SWB) was found to contribute to health and well-being in old age and is highly under-researched in the older population. This study aims to analyze SWB in a cross-cultural way through older Portuguese and Slovenian older samples.

Methods: We interviewed 136 older participants with an average age of 71.6 years old. Participants were Portuguese and Slovenian and lived in the community. Participants were subjected to semi-structured interviews and these were subjected to a content analysis process.

Results: The content analysis indicated nine themes related to SWB: self-reported good health; demonstrations of love; non-sexual joint activities; overall well-being and quality of life; partner support; positive self-image; being independent and active; sexual compatibility; and masturbation. Portuguese older adults experience their SWB associated mainly with self-reported good health and demonstrations of love, while Slovenians older adults associate their SWB mainly with non-sexual joint activities and overall well-being and quality of life.

Conclusions: The themes found in this study are fundamental evidence for cultural interventions and guidelines outlining in the context of sexual health in aging, mainly due to the scarcity of knowledge of SWB among older adults.

von Humboldt S et al. Sexual expression in old age: How older adults from different cultures express sexually? Sex Res Social Policy. 2020;1-15.

von Humboldt S et al. Are older adults satisfied with their sexuality? Outcomes from a cross-cultural study. Educ Gerontol. 2020;46:284-293.

169 / #EV0636

HOW IS SEXUAL UNWELLNESS PERCEIVED IN DIFFERENT CULTURES: A QUALITATIVE STUDY WITH OLDER ADULTS FROM SLOVENIA AND PORTUGAL

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Background and Aims:

Oder adults have been stereotyped, both explicitly and implicitly, as being asexual or naturally lacking sexual desires . The objective of this study is to analyse the perspectives of sexual unwellness (SU) of Portuguese and Slovenian older adults. A qualitative research was carried out, in which these perceptions were analysed at a cultural level.

Methods: The sample of this study consisted of 136 older participants, between 65 and 96 years of age. Participants were of two different nationalities and lived in the community. Participants were interviewed, and all interviews were carried out through the process of literal transcription and subsequent content analysis.

Results: Eight key mutually exclusive themes emerged from the interviews: unavailability of partner; traditional values; body restrictions; low self-esteem and well-being; poor social support; dissatisfaction with physical appearance; pain during sex; and difficulties meeting new people. Unavailability of partner was the most important theme (17.9%) for the studied sample and specifically among Portuguese participants. Conversely, difficulties meeting new people was the least reported theme (6.8%) for the entire sample. For Slovenians traditional values were most relevant with respect to feeling sexually unwell.

Conclusions: Older adults from two different countries reported diverse sexual experiences. Eight mutual-exclusive themes were extensively illustrated.

von Humboldt S et al. Sexual expression in old age: How older adults from different cultures express sexually? Sex Res Social Policy. 2020;1-15.

von Humboldt S et al. Are older adults satisfied with their sexuality? Outcomes from a cross-cultural study. Educ Gerontol. 2020;46:284-293.

 DOI: 10.12890/2022_V9Sup1

70 / #EV0637

SEXUAL CHALLENGES IN THERAPY WITH OLDER ADULTS: A QUALITATIVE STUDY WITH OLDER ADULTS

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Background and Aims: Sexual well-being (SWB) of the older population can be significantly influenced by age and sexual difficulties. Through qualitative research, this study focused on sexual themes that affect the SWB addressed by the older people in person-centered therapy.

Methods: 25 older adults, aged between 65 and 82 years and residents on the community participated in this study.

Results: The results revealed eight main themes for these participants: Absence of a partner, family interference, dissatisfaction with the body, cleanliness and body care, problems in sexual function, physical violence, problems in sexual communication and fear of contracting sexually transmitted diseases. The most discussed themes were the absence of a partner, problems with sexual function and dissatisfaction with the body.

Conclusions: This study highlights the importance of exploring the sexual difficulties that the older population feels in relation to their SWB.

von Humboldt S et al. Sexual expression in old age: How older adults from different cultures express sexually? Sex Res Social Policy. 2020;1-15.

von Humboldt S et al. Are older adults satisfied with their sexuality? Outcomes from a cross-cultural study. Educ Gerontol. 2020;46:284-293.

1001 / #EV0638

PROVIDING PROMPT COMPREHENSIVE GERIATRIC ASSESSMENT TO PATIENTS WITH HEART FAILURE WITH REDUCED EJECTION FRACTION, A NOVEL PATHWAY

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Background and Aims: The association between heart failure with reduced ejection fraction (HFrEF) and frailty has been extensively reported. The mechanistic features common to both clinical syndromes results in a high burden of disease with the presence of frailty being associated with poorer clinical, functional and quality of life outcomes in patients with heart failure. Prompt comprehensive geriatric assessment (CGA) of patients with HFrEF is likely to lead to better patient outcomes. We assessed the prevalence of patients with HFrEF, requiring CGA, in a 255-bedded university teaching hospital and created a novel pathway for prompt CGA.

Methods: All adult medical and surgical in-patients were screened for HFrEF on a single day. Those identified with HFrEF were cross-referenced with a frailty database, which identified all patients at the emergency department triage who were likely to require CGA. Patients on the database requiring CGA had an average frailty score of 5.5. Patients in paediatrics, intensive care and maternity wards were excluded. Three patients were excluded as they were not yet included on the database at the time of analysis. Data was analysed using descriptive statistics.

Results: Of 160 inpatients screened, 12.5% (n=20) were identified as having HFrEF. The frailty database indicated that 82.4% (n=14), were likely to require CGA. The mean age was 83±7.2 years and the male to female ratio was 3.5:1.

Conclusions: Cardiac technicians have adopted a triage tool ensuring that all patients over 70 years whose echocardiogram demonstrates HFrEF, are screened and referred for a priority CGA.

82 / #EV0639

RESULTS OF THE "GER-E-TEC COVID" EXPERIMENT CONCERNING THE TELEMONITORING OF ELDERLY PATIENTS AFFECTED BY COVID-19 DISEASE

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Background and Aims: The main goal of the GER-e-TEC COVID study was to test the ergonomics of the MyPredi™ telemonitoring platform, on elderly patients suffering from COVID-19 infection.

Methods: This study took place during the 3rd wave of the epidemic in France, between December 14th, 2020 and February 25th, 2021, conducted in Strasbourg Hospital.

Results: 30 elderly patients affected by COVID-19 disease were monitored remotely. The mean age was 85.9 years. The patients used the telemedicine solution for an average of 27.3 days. 11 (36.7%) died during the experiment. 140,260 measurements and a total of 1245 alerts while monitoring the geriatric syndromes of the entire patient group. In terms of sensitivity and positive and negative predictive values, the results were extremely satisfactory. Gender played no role in the length of the hospital stay, regardless of the reason for the hospitalization [decompensated heart failure (p=0.45), deterioration of general condition (p=0.12), but significant for death (p=0.028)[. The analyses revealed that the length of the hospital stay was not affected by the number of alerts. The results concerning the predictive nature of alerts are satisfactory. Physical activity measured by the pedometer, the risk of prolonged bed rest and the frequency of stools were significantly lower in elderly people with COVID-19 infection and mainly in the elderly people with COVID-19 who died.

Conclusions: he MyPredi™ telemedicine system allows for the generation of automatic, non-intrusive alerts when the health of a COVID-19 elderly patient deteriorates due to risks associated

 DOI: 10.12890/2022_V9Sup1

with geriatric syndromes.

 DOI: 10.12890/2022_V9Sup1

AS09. INFECTIOUS DISEASES

1385 / #EV0640

RHEUMATOID ARTHRITIS, METHOTREXATE AND PNEUMOCYSTIS JIROVECII INFECION: AN UNUSUAL TRIAD

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Case Description: Male, 87 years old, with stage IV lung adenocarcinoma, chronic obstructive pulmonary disease and psoriatic arthritis. His medication included methotrexate and folic acid. He was admitted due to pleuritic precordialgia and dyspnea at rest over the previous 6 months. He referred dry cough, paroxysmal nocturnal dyspnea, orthopnea, lower limb edema and fever peaks with an unspecific pattern in the previous week. Clinical examination revealed diminished breath sounds in the lower third of the left hemithorax. Laboratory findings include hemoglobin 12.5 g/dL, leukocytes 155,700x/10^9/L, platelets 380,000/L, sodium 129mmol/L, potassium 4.8 mmol/L, troponin T 323 ng/L, NT-proBNP 118 pg/ml, PCR 7.36 mg/dL. ECG and chest radiography were normal. Echocardiogram revealed preserved ejection function and left ventricular dilation. Acute tracheobronchitis was assumed and levofloxacin was initiated. Nevertheless, inflammatory parameters increased, and a febrile pattern persisted.

Clinical Hypothesis: Fever of unknown origin (FUO) was therefore established as the most likely diagnosis.

Diagnostic Pathways: Infectious causes, cancer and autoimmunity were excluded. After 12 days, he presented dyspnea and desaturation requiring non-invasive ventilation. Chest radiography revealed diffuse pulmonary bilateral infiltrates. This presentation was attributed to pneumonia due to *Pneumocystis jirovecii*. Treatment with co-trimoxazol and prednisolone was initiated, with favorable clinical and laboratory evolution. No infectious agent was collected through bronchoscopy.

Discussion and Learning Points: Opportunistic *Pneumocystis jirovecii* infections mainly occur in individuals with acquired immunodeficiency. It is uncommon in patients immunosuppressed by methotrexate. Generally, microbiological results are negative, therefore treatment is empirical. Without guidelines defining criteria for prophylaxis initiation, this case presents the preventable synergy of factors for interstitial lung injury, namely methotrexate, rheumatoid arthritis and presumable *Pneumocystis* infection.

2075 / #EV0641

DOUBLE TROUBLE

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Case Description: A 47-year-old-man, without prior medical history, presented in the emergency department with sudden vision loss in the right eye and diplopia. The patient was born in Portugal and worked as a lawyer. He had exclusively homosexual contacts, reporting protected and unprotected sexual intercourses. He did not smoke tobacco, drink alcohol or use illicit drugs. On the examination, we identified right ptosis, anisocoria (right mydriasis), limitation in the dextroelevation of the right eye with diplopia. The ophthalmologic observation was normal, despite the previous changes.

Clinical Hypothesis: Incomplete palsie of the oculomotor nerve.

Diagnostic Pathways: Head computed tomography (CT) scan and magnetic resonance imaging (MRI) were normal and excluded vascular lesions. Laboratory results revealed a positive HIV-1 test with 626 copies/ml and CD4+ lymphocyte counts of 599 cells/µL, as well as positive Venereal Disease Research Laboratory (VDRL) (1/16) and *Treponema pallidum* hemaglutination assay (TPHA) (1/>2560). Cerebrospinal fluid (CSF) showed high protein (67mg/dL) and leukocytes (8 leukocytes/uL) levels and a positive TPHA (1/640). Other infections were excluded.

Discussion and Learning Points: Neurosyphilis and HIV-type 1 infection were admitted and treatment was initiated with intravenous penicillinG, 4 million units every 4 hours for 14 days. The patient presented complete symptomatic resolution, and started antiretroviral therapy with bictegravir, emtricitabine and tenofovir. Syphilis, known as “the great imitator”, can present, in rare occasions, as a mono or multiple cranial nerve palsies, with very few cases reported around the world in the last

 DOI: 10.12890/2022_V9Sup1

years. Regarding this, syphilis should be taken in account in the differential diagnosis even when there is involvement of a single cranial nerve.

2115 / #EV0642

A SURPRISING AGENT IN AN IMMUNOCOMPROMISED PATIENT

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Case Description: A 45-year-old-man presented with a 1-week history of dyspnea, cough and hemoptysis. Four months before, the patient had been diagnosed with sarcoidosis, presenting neurological, renal and ophthalmological involvement. He was treated with corticosteroids, initially with good response, however, three months later, worsening of the neurological condition was verified and he was started on infliximab. At that time, IGRA and cultures for *Mybacterium tuberculosis* of sputum and bronchoalveolar lavage (BAL) were negative. The examination was normal and the chest radiograph revealed a new hypotransparency in the right lung.

Clinical Hypothesis: New pulmonary lesion in an immunocompromised patient.

Diagnostic Pathways: Chest computed tomography (CT) scan revealed a cavitation in the upper segment of the right lower lobe. Laboratory results showed lymphocytosis and neutrophilia. There were no acid-alcohol-resistant bacilli (BAAR) in the sputum. The PCR and cultural exams for M. tuberculosis were negative in the BAL, and *Aspergillus fumigatus* was isolated. IgG serology for *Aspergillus* was positive (114 mg/L), as well as specific IgG for *Aspergillus fumigatus* (93.1mg/L).

Discussion and Learning Points: Semi-invasive aspergillosis was admitted and the patient started intravenous voriconazol (6mg/kg 2 doses, then 4 mg/kg) twice daily for 14 days, with significant improvement, and was dispatched with oral voriconazol 300mg twice daily. The use of immunossupressive drugs is typically associated with opportunistic infections. Tuberculosis is a well-known complication of the use of TNF-α antagonists, as infliximab, however, non-tuberculosis infections, such as aspergillosis, are rare. The awareness of this condition is important to the prompt diagnosis and management of these patients.

2522 / #EV0643

WEIL SYNDROME: A RARE ENTITY

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Case Description: A 56-year-old man, with a past history of dyslipidaemia and hypertension, presented with fever, asthenia, anorexia, vomiting and diarrhea with one week of onset, associated with lower limb edema. On initial assessment, he presented with hypotension, oliguria, jaundice and conjunctival redness.The blood count revealed both anemia as well as thrombocytopenia and leukocytosis. Blood tests showed renal failure and hepatic dysfunction, severe hyponatremia and hypokalemia. A diagnosis of septic shock with associated acute kidney injury was established requiring renal replacement therapy. The search for infection site was initiated and microbiological products were obtained. In his previous history, we emphasize the fact that he consumed aromatic herbs that he grew in an environment with multiple rodents. Due to the suspicion of leptospirosis, real time PCR was made, allowing this diagnosis to be confirmed.In accordance with recommendations, a 14 day intravenous treatment with doxycycline was completed. A favorable response to treatment ocurred, with normalization of renal function and resolution of the cytocholestasis.

Clinical Hypothesis: Septic shock withmultiorgan failure; Weil syndrome.

Diagnostic Pathways: Hemogram with full blood count, C-reactive protein, hepatic and renal function. Arterial blood gas analysis; blood and urine cultures. Real time PCR for leptospira.

Discussion and Learning Points: Leptospirosis is a widely underdiagnosed zoonotic disease, whose presentation can range from mild and self-limited disease to the rarest and most severe form, Weil's syndrome, causing severe liver and kidney injury. With this report, the authors intend to raise awareness about this rare presentation of leptospirosis. A high level of suspicion is needed to include leptospirosis in the differential diagnosis of septic shock. The delay in treatment can be fatal.

1163 / #EV0644

LYTIC LESION AS PRESENTATION OF SECONDARY SYPHILIS

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Case Description: We describe a 31-year-old man with a personal history of human immunodeficiency virus -1 (HIV 1) infection and primary syphilis who presented with fever, headache, edema of the right eye and right frontal lytic lesion who was diagnosed with Secondary Syphilis.

Clinical Hypothesis: Infectious diseases, immunologic and malignant disorders.

DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: Serological diagnostic methods including non-treponemal tests and treponemal tests.
Discussion and Learning Points: Syphilis is a chronic, systemic, infectious disease caused by sexual or vertical transmission of the bacterium Treponema pallidum (Bone involvement in primary and secondary syphilis, it's an uncommon phenomenon that can go unnoticed. Clinically there may be pain, soft tissue swelling, tenderness, headache, fever, and other constitutional symptoms. Radiologically rounded osteolytic lesions with or without marginal sclerosis are observed. Lytic lesions are included in several differential diagnoses such as primary malignant bone tumors, bone metastases from distant primary sites and several benign bone lesions. However, although infrequent, they are also a manifestation of secondary syphilis and should be taken into account in the differential diagnosis.

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2021 / #EV0645

KLEBSIELA ENDOCARDITIS IN A LUPUS PATIENT: A CASE REPORT

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Case Description: 73-year-old male, active with hypertension, dyslypidemia and cardiac ischaemia history submited to a CABG in 2010 is brought to the ER with exacerbated peripheral edemas. On admition he was diagnosed with nephrotic syndrome and cardiorenal syndrome type 1 later associated with SLE with active urine cylinders, hypocomplementemia, Anti-DNA ds >247 a positive SSA and a negative Anti GBM, decided treatment with methylprednisolone. During stay patient developed a extensive pectoral muscle hematoma and decided antibiotic treatment with ceftriaxone. The patient complicated wtih fever and shivering, septic screening was collected and upscalled antibiotic to piperacilin and tazobactan.
Clinical Hypothesis: This was a patient thas was admitted with cardiac failure that had a previous atrial fibrilation and a "de nov"" diagnosis ofLupic nephritis. Upon the onset of a bloodborn infection with *Klebsiella pneumoniae* Carbapenemase, the diagnosis of infective endocarditis was imminent.
Diagnostic Pathways: A *Klebsiella pneumoniae* Carbapenemase was isolated and echocardiogram revealed a vegetation in the aortic valve with moderate dysfunction The patient had fever a "de novo" heart murmur and two positive blood culture with KPC and a vegetation, fulfilling two major criteria for infective endocarditis The patient evolved negatively with hemorrhagic shock in a hypocoagulated due to epistaxis, respiratory failure and need of mechanical ventilation and an enterococcus faecalis bacteriemia. The patient was discharged form ICU but had a death outcome in the infirmary due to successive respiratory infections.
Discussion and Learning Points: Klebsiella endocarditis is a rare entity that is often related with a malignant course.

693 / #EV0646

SUBACUTE INVASIVE PULMONARY ASPERGILLOSIS

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Case Description: An 80-year-old man with Child-Pugh A chronic liver disease, alcoholism and pulmonary tuberculosis treated 4 years earlier, with 9 months of anti-TB drugs, presented to the Emergency Department with a 2-month history of productive cough with mucopurulent sputum and fatigue from minor exertion. On chest imaging, a cavitation was apparent in the upper right lobe, as well as multiple air cystic areas in the middle and lower right lobes and scattered bronchiectasis.
Clinical Hypothesis: Pulmonary tuberculosis and pulmonary aspergillosis were considered.
Diagnostic Pathways: After 3 negative sputum samples for alcohol-acid resistant bacilli upon direct examination, fiberoptic bronchoscopy was performed. In the cultural examination of the bronchoalveolar lavage, *Aspergillus fumigatus* was identified as well as a positive *Aspergillus* (Galactomannan) antigen (1.70UA) and positive specific *Aspergillus fumigatus* (Gm3) IgG (125.0mg/L). The patient was started on voriconazole. However, unfavorable evolution was observed after 2 weeks of targeted therapy, due to SARS-CoV-2 superinfection.
Discussion and Learning Points: Subacute invasive pulmonary aspergillosis is a rare presentation that typically occurs in cases of severe immunosuppression, like severe or prolonged neutropenia or transplant patients. However, one must be aware of patients with chronic liver disease, alcoholism, and granulomatous diseases like tuberculosis. This case reminds that the most typical presentation of aspergillosis in patients with tuberculosis is aspergilloma, so a high clinical suspicion is needed for invasive pulmonary aspergillosis diagnosis and early treatment. The identification of the Aspergillus antigen is specific for invasive disease and can be helpful. This disease is associated with increased mortality.

 DOI: 10.12890/2022_V9Sup1

700 / #EV0647

INVASIVE SALMONELLOSIS IN A PORTUGUESE HOSPITAL: WHO ARE THEY?

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Background and Aims: Nontyphoidal and typhoidal *Salmonella* are important pathogens in self-limited enteric infection. Albeit rare, bacteremia is associated with immunological dysfunction. Our aim was to analyze the clinical features of adult patients with invasive salmonellosis.

Methods: Retrospective study, using clinical records of adult patients with *Salmonella* bacteremia admitted to our hospital between January 2011 and September 2021.

Results: A total of 12 patients were diagnosed with Salmonella bacteremia. The mean age was 56.1±26.1 years and 66.7% were male. Immunosuppression was significant, through chronic kidney disease (21.0%), type 2 diabetes (15.8%), stage IV cancer (10.5%), acquired immunodeficiency syndrome (10.5%) and systemic lupus erythematosus (10.5%). 9 patients had at least one immunosuppressive factor and 16.7% were on immunosuppressive drugs. Acute diarrhea (58.3%), fever (41.7%), vomiting (33.3%) and gonalgia (8.3%) were found. There were eight cases of complicated gastroenteritis, one of osteomyelitis and one of spondylodiscitis. Salmonella nontyphi were found in 75% of blood cultures, stool cultures were positive in 7 of all patients. 4 patients developed sepsis. Treatment options included third generation cephalosporins (50%), beta-lactam/beta-lactamase inhibitor (33.3%) or fluoroquinolones (8.3%). Resistance to fluoroquinolones was documented in 66.7% of isolates. There was an unfavorable outcome in 5 patients (41.7%) due to worsening renal function, with one death.

Conclusions: Immunological dysfunction is a growing concern, given the increasing life expectancy and prevalence of immunosuppression factors, including immunosuppressive drugs. In these patients, clinical suspicion of invasive salmonellosis is fundamental to early diagnosis and treatment. Therapeutic options are increasingly limited, due to the growing resistance to fluoroquinolones and third generation cephalosporins.

744 / #EV0648

UTILITY OF CHEST RADIOGRAPHY IN THE DIAGNOSIS OF EXTRATHORACIC TUBERCULOSIS

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Background and Aims: Extrapulmonary tuberculosis (ETB) is often difficult to diagnose and can require aggressive techniques for its detection. Furthermore, these exams do not provide microbiological information in most cases. We aim to analyze the diagnostic contribution of chest radiological techniques in this situation.

Methods: We have reviewed the results of chest radiological examinations, conventional X-radiograph (XR) and computed tomography (CT), in all patients diagnosed with ETB in our center between 2015 and 2020. These patients have been classified according to their organ involvement: lymph nodes, central nervous system, peritoneum, genitourinary system, musculoskeletal system, and other organs. We established three radiological patterns in each imaging modality: normality, probably inactive lesions and probably active lesions; confirming, when possible, that the findings considered active did not exist in previous studies.

Results: The XR suggested active ETB in 25% of patients and inactive in 9% (Table 2). However, CT suggested active ETB in 53% of cases and inactive ETB in 28%, having a normal result in only 19% of patients (Table 1). Regarding the various involvement sites, it should be noted that chest CT showed active tuberculosis in over 70% of patients with central nervous system, abdominal and musculoskeletal involvement (Table 1).

Conclusions: Chest radiological techniques, mainly CT, can provide clinically relevant information, from a diagnostic perspective, in a high number of patients with ETB. This information can also be valuable for taking preventive measures. Patients with central nervous system, abdominal, or osteoarticular tuberculosis appear to benefit the most from such investigations.

	NORMAL n (%)	ACTIVE TB n (%)	CHRONIC TB n (%)	TOTAL n	CT not performed n
Lymph node	5 (20)	10 (40)	10 (40)	25	6
Central nervous system	2 (18.2)	8 (72.7)	1 (9.1)	11	2
Abdominal	0 (0)	3 (75)	1 (25)	4	1
Genitourinary	1 (100)	0 (0)	0 (0)	1	7
Musculoskeletal	0 (0)	4 (80)	1 (20)	5	3
Cutaneous	0 (0)	0 (0)	0 (0)	0	2
Ocular	1 (100)	0 (0)	0 (0)	1	0
TOTAL	9 (19.15)	25 (53.19)	13 (27.66)	47	21

#EV0648 Table 1: Results of chest CT in 68 patients with extrapulmonary tuberculosis.

	NORMAL n (%)	ACTIVE TB n (%)	CHRONIC TB n (%)	TOTAL n
Lymph node	20 (64.52)	6 (19.35)	5 (16.13)	31
Central nervous system	7 (53.85)	6 (46.15)	0 (0)	13
Abdominal	3 (60)	2 (40)	0 (0)	5
Genitourinary	7 (87.5)	1 (12.5)	0 (0)	8
Musculoskeletal	5 (62.5)	2 (25)	1 (12.5)	8
Cutaneous	2 (100)	0 (0)	0 (0)	2
Ocular	1 (100)	0 (0)	0 (0)	1
TOTAL	45 (66.18)	17 (25)	6 (8.82)	68

#EV0648 Table 2: Results of the chest radiograph in patients with extrapulmonary tuberculosis.

DOI: 10.12890/2022_V9Sup1

2486 / #EV0649

THE PATHOLOGICAL FEAR OF COVID-19 AND NEUROPARASITOSIS

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Case Description: An 82-year-old man with a history of anxiety disorder and multiple previous visits to his attending physician for behavioral changes, interpreted as a pathological "Fear of COVID-19", was admitted to the Emergency Department after several transient episodes of dysarthria and hypoesthesia of the left armf dysarthria and hypoesthesia of the left arm.
Clinical Hypothesis: Ischemic stroke, transient ischemic attack, central nervous system infection.
Diagnostic Pathways: A cranioencephalic tomography scan revealed a left frontal calcified lesion with a surrounding hypodensity suggestive of edema. The patient was hospitalized and performed a cranioencephalic magnetic resonance (MRI) with findings compatible with active-phase neurocysticercosis (NCC). Serology for *Taenia solium* was negative. Given the clinical and imaging findings being strongly suggestive of NCC the patient was treated with albendazole, dexamethasone during 20 days, and levetiracetam. During hospital stay, the patient contracted asymptomatic COVID-19 infection, with no sign of illness-related anxiety. At six months of follow-up, he was asymptomatic and MRI showed a total calcification of lesions.
Discussion and Learning Points: NCC is contracted by consuming food that is contaminated by the larvae *Taenia solium*. This condition, as an important cause of epilepsy and neurological deficits, has multiple clinical manifestations according to the number, size and stage of the cysts, and serology tests may be negative during the chronic phase of the disease. Thus, an appreciation of the patients' symptoms and signs (often unspecific and framed in another context, such as anxiety or atypical convulsive manifestations), associated with a detailed clinical history, acquires major importance for the correct diagnosis and treatment of this condition.

2705 / #EV0650

CERVICALGIA AND FEVER: A CASE REPORT OF SPONDYLODISCITIS DUE TO INTRAVENOUS DRUG USE

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Case Description: A 49 years-old male with current intravenous drug use, chronic hepatopathy due to HCV and recurrent deep vein thrombosis came to the Emergency Department with one-week history of cervicalgia, pain in his right arm and fever. He denied neurological deficits or any other symptoms. The physical examination showed signs of venepunctures in his left inguinal region without phlebitis. As his blood test presented elevated inflammatory markers and his symptoms had worsened throughout that week, he was admitted to hospital and empirical antibiotic therapy with cloxacillin and ceftazidime was begun.
Clinical Hypothesis: It was suspected bacteriemia from soft tissue infection with possible spondylodiscitis.
Diagnostic Pathways: The HIV serology was negative. *Serratia marcescens* was obtained in two of three blood cultures, so ertapenem was begun. As the neck pain persisted, an MRI scan was ordered revealing spinal cord compression due to a possible abscessed collection located in the anterior epidural space at the C5-C6 level. Neurosurgery didn't drain the collection due to its location and the lack of neurological impairment. The patient evolved favourably and the following blood cultures were negative, so after three weeks of intravenous antibiotic he was released from hospital with oral fosfomycin and ciprofloxacin for three more weeks. The follow-up MRI scans showed resolution of the collection without any signs of myelopathy.
Discussion and Learning Points: *Serratia marcescens* is an opportunistic pathogen with many drug resistances and inducible AmpC beta-lactamase, so its treatment can be challenging. Infection by *Serratia* has been described among intravenous drug users but vertebral, intervertebral disc or epidural locations are extremely rare.

1567 / #EV0651

CLINICAL AND FINANCIAL IMPACT OF AN EMPIRIC ANTIBIOTIC PRESCRIBING POLICY – SINGLE DEPARTMENT EXPERIENCE

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Background and Aims: The development of local suited protocols is a useful tool to promote judicious use of antibiotics. This study aims to evaluate the clinical outcomes of mortality, clinical and microbiologic failure of a single department Empiric Antibiotic Prescribing Policy (EAPP) and assess its financial impact.
Methods: An EAPP was developed for the most prevalent infections considering guidelines and local microbiology data. Clinical data of 159 consecutive empiric antibiotics prescriptions after the application of the EAPP, from March 1st to July 31st 2019 was collected and analyzed prospectively. A control group of 234 prescriptions over the same period of time in 2018 and within the same department was analyzed retrospectively.
Results: Compliance with the EAPP reached 86.2%. The use of broad-spectrum antibiotics was reduced from 25.2% in the control group to 4.4% after the EAPP ($p<0.001$), without significant change in mortality. The median length of antibiotic use was reduced from of 7(±2.8) to 5(±1.5) days ($p<0.001$) and the duration of hospitalization from a median of 8 [IQR 5-18] to 7 [IQR 4-10] days ($p<0.001$). Oral therapy was increased to 52.2% from

 DOI: 10.12890/2022_V9Sup1

21.4% in the control group (p<0.001). Clinical failure was reduced from 19.7% to 10.1% (p=0.013). The total expense with antibiotics of the department decreased from €11917 (€53.90 per patient) to €6543 (€27.50 per patient).
Conclusions: Our EAPP proved to be effective and safe. The clear definition of failure criteria may have precluded early wide spectrum antibiotics. We believe the EAPP is a valuable tool to curb inadequate antibiotic use and therefore reduce induction of resistance.

2094 / #EV0652

CHILDS DISEASE IN ADULT - MOTHER'S STUFF

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Case Description: Female, 32 years old, nurse, with odynophagia, macular rash and paresthesias on the hands, anal and vaginal ulcers with 2 days of evolution. She informed us about a child at home with a diagnosis of HFMD 4 days ago. On physical examination: apyretic, hemodynamically stable, oropharynx with whitish exudate; no changes on neurological examination. Analytically with leukocytosis with neutrophilia and seric PCR 21 mg/dl. A nasal/oropharyngeal swab was collected for respiratory virus testing and it was positive for enterovirus. Evolution to bullous lesions on hands and feet, some with hemorrhagic transformation. It was referred an intense nocturnal itching with evolution to desquamative lesions with improvement in paresthesias. Oropharyngeal and perianal lesions that disappeared within 3 days. So, HFMD by enterovirus was assumed with favorable evolution under symptomatic treatment.
Clinical Hypothesis: Allergic reaction; viral exanthems.
Diagnostic Pathways: Medical history; objective examination; microbiological of nasal/oropharyngeal swab.
Discussion and Learning Points: Hand, foot, and mouth disease (HFMD) is a clinical syndrome of the most recognizable viral exanthems in children, particularly those younger than five to seven years. Coxsackievirus A16 and enterovirus A71 are the serotypes most frequently associated with HFMD. Human enterovirus infection occurs after oral ingestion of virus that is shed from the gastrointestinal or upper respiratory tract of infected individuals The diagnosis of HFMD usually is made clinically. HFMD caused by enterovirus A71 has been associated with severe illness, complicated by central nervous system disease (rhombencephalitis, acute flaccid paralysis, aseptic meningitis), pulmonary edema and hemorrhage, and heart failure.

553 / #EV0653

BARTONELLA HENSELAE INFECTION BETWEEN 2017 AND 2020 IN SANTIAGO DE COMPOSTELA AND BARBANZA HEALTH AREA

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Background and Aims: Analyze the characteristics of *Bartonella henselae* infection between 2017 and 2020 in Santiago de Compostela and Barbanza Hospital.
Methods: Microbiology Department has identified patients with positive serological test for Bartonella henselae during this period, including pediatric age.
Results: This research included 22 cases. 72.7% were male and mean age was 37.2 years (range 1-77). 68.1% lived in rural areas, and 59.1% documented a cat scratch. Any insect bites were reported. 50% had fever and 77.2% adenopathies. Besides, 4 presented abscesses (3 of them at lymph nodes, -one needed surgical drainage- and another one as multiple splenic collections) . Two endocarditis were documented, both on prosthetic valve, and a positron emission tomography was required to confirm the diagnosis. The 100% microbiological test was serology (IgM and IgG, reaching a1/65,536 titer in disseminated infection). PCR was performed in 2 patients. In 87% of the cases it was decided to administer treatment, using azithromycin (63.6%), doxycycline (36.3%) and rifampicin (22.7%). In one of endocarditis case, it was necessary to remove the valve, associate gentamicin, and maintain doxycillin for 15 months. All patients were cured and are alive nowadays. In the elderly, the symptoms are nonspecific, which can delay diagnosis.
Conclusions: *Bartonella* should be considered in patients with lymphadenopathy, although there is no cat contact. It is important to think about this disease, check clinical history so as to guide the diagnosis and, especially in disseminated cases, communicate with Microbiology to find out IgM and IgG titers that support the entity and the treatment.

 DOI: 10.12890/2022_V9Sup1

1719 / #EV0654

A WOMAN WITH MULTIPLE BRAIN LESIONS

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Case Description: 35-year-old woman from Spain who lived in Ecuador. She had dry cough, developing 20 days later holocranial headache, nausea and vomiting. A brain CT was performed, which revealed lesions with edema (probably abscesses). Then, she suffered clinical worsening, needing ICU. In blood test she had leukocytosis with neutrophilia, lumbar puncture with 50 cells (polymorphonuclear predominance, negative PCR and culture) and sterile blood cultures. HIV/Toxoplasma serology, Cryptococcus antigen, Mantoux and IGRA were negative. Her chest X-ray revealed a right upper lobe lung lesion (bronchoscopy with negative culture) and the brain MRI described ring enhancement lesions. A brain biopsy was performed, visualizing a doubtful cysticercus. Treatment with albendazole, ceftriaxone, metronidazole, dexamethasone and levetiracetam was started. She was discharged, diagnosed of neurocysticercosis. She returned to Spain and presented deterioration, being transferred to Internal Medicine.

Clinical Hypothesis: Infections, tumors of CNS, metastasis from an unknown primary tumor, demyelinating diseases or vascular malformations.

Diagnostic Pathways: Negative serologies (*T. solium*, Histoplasma, *Echinococcus*, *Paracoccidioides*) were obtained. New CT and MRI showed lesion growth and a thoracic-abdominal CT, a postinfectious lung lesion in upper right lobe. Another bronchoscopy and brain biopsy were performed, isolating *Nocardia asiatica*, diagnosing disseminated nocardiosis in an immunocompetent patient. Treatment was started with meropenem, trimethopin/sulfametoxazole and linezolid, changing to cefotaxime, amikacin and linezolid after sensitivity study and toxicities.

Discussion and Learning Points: Delay in diagnosis is common due to the nonspecific clinical features, needing invasive studies for profitable samples, as well as the difficulty of *Nocardia* for growing (detected by gram or Kinyoun staining). If clinicians suspect it, they should notice microbiologists.

1761 / #EV0655

REFRACTORY ABDOMINAL PAIN IN A PATIENT WITH SYSTEMIC SCLEROSIS

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Case Description: 45-year-old woman with a history of limited systemic sclerosis and associated pulmonary hypertension (treatment: azathioprine, methylprednisolone, epoprostenol, tadalafil, and bosentan). She reports assistance for low-grade fever, pain with abdominal distention, loose stools, loss of appetite and weight. On physical examination, she is cachectic, eupneic and presents mild jugular venous pressure at 45º. The abdomen is soft and diffusely painful, with mild ascites and bilateral malleolar edema.

Clinical Hypothesis: Pharmacological (due to epoprostenol), infectious, metabolic (nutritional supplements were indicated), inflammatory or neoplastic.

Diagnostic Pathways: She has leukopenia, anemia, hyponatremia, dissociated cholestasis, elevated CRP, and fecal occult blood is positive. Blood cultures are sterile and stool study is normal (culture, *C. difficile* toxin, Kinyoun, *Cryptosporidium* ag, *S. stercoralis*, *G. lamblia*, rotavirus, adenovirus). Negative PCR, blood (CMV, EBV and SARS-CoV-2), as well as serologies (syphilis, HIV, HAV, HBV, HCV, CMV, EBV, VVZ). The body CT has bilateral pleural effusion, colitis, sub-occlusion and ascites; in PET there are pathological increases in colon and mesenteric lymphadenopathy. TTE has preserved function and indirect evidence of pulmonary hypertension. A colonoscopy is performed: mucosa with canker sores and an inflammatory-looking anal ulcer. Granulomas and AFB (Ziehl-Neelsen) are visualized. PCR reveals *M. tuberculosis* complex, being diagnosed by intestinal tuberculosis. Rifampin, isoniazid, pyrazinamide, ethambutol and pyridoxine are started. He also develops an IRIS and corticosteroids were adjusted.

Discussion and Learning Points: Although intestinal sub-occlusion could relatively contraindicate colonoscopy performance, it is essential to obtain a sample to guide the diagnosis, weighting risks and benefits. With antituberculous treatment, liver function tests and ophthalmological evaluation must be done periodically.

DOI: 10.12890/2022_V9Sup1

1558 / #EV0656

IMPACT OF THE IMPLEMENTATION OF A SEPSIS CODE PROGRAM IN MEDICAL PATIENTS MANAGEMENT: A COHORT STUDY IN AN INTERNAL MEDICINE WARD

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Background and Aims: Sepsis is the main cause of death in hospitals and the implementation of diagnosis and treatment bundles has shown to improve its evolution. However, there is a lack of evidence about patients attended in conventional units.

Methods: A 3-year retrospective cohort study was conducted. Patients hospitalized in Internal Medicine units with sepsis were included and assigned to two cohorts according to Sepsis Code (SC) activation (group A) or not (B). Baseline and evolution variables were collected.

Results: 653 patients were included. In 296 cases SC was activated. Mean age was 81.43 years, median Charlson comorbidity index (CCI) was 2 and 63.25% showed some functional disability. More bundles were completed in group A: blood cultures 95.2% vs 72.5% (p<0.001), extended spectrum antibiotics 59.1% vs 41.4% (p<0.001), fluid resuscitation 96.62% vs 80.95% (p<0.001). Infection control at 72 hours was quite higher in group A (81.42% vs 55.18%, odds ratio 3.55 [2.48-5.09]). Antibiotic was optimized more frequently in group A (60.77% vs 47.03%, p 0.008). Mean in-hospital stay was 10.63 days (11.44 vs 8.53 days, p<0.001). Complications during hospitalization appeared in 51.76% of patients, especially in group B (45.95% vs 56.58%, odds ratio 1.53 [1.12-2.09]). Hospital readmissions were higher in group A (40% vs 24.76%, p<0.001). 28-day mortality was significantly lower in group A (20.95% vs 42.86%, odds ratio 0.33 [0.23-0.47]).

Conclusions: Implementation of SC seems to be effective in improving short-term outcomes in IM patients, although therapy should be tailored in an individual basis.

2479 / #EV0657

SEPTIC EMBOLI: ABOUT A PURPURA

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Case Description: A 42-year-old type I diabetic male with retinopathy, arterial disease, and stage V nephropathy on hemodialysis. Connatal cognitive impairment.

Carrier of right jugular catheter with SASM infection in September 2020, the left jugular catheter was replaced and placed. In October she was admitted due to fever and respiratory symptoms, and was voluntarily discharged the day after extracting blood cultures from the central line.

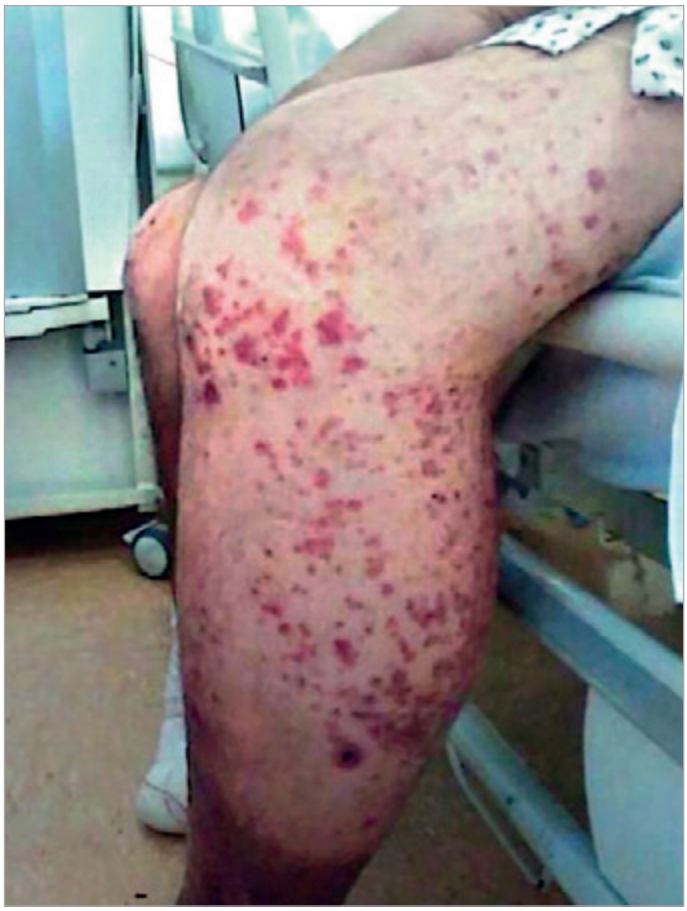
In November she attended for fever and purpuric lesions. On examination, she had palpable purpuric lesions on her hands, back, and lower limbs. Analytically, she elevated RFA and creatinine figures at 5.44 mg/dl. The transthoracic echocardiogram showed a doubtful nodular lesion on the mitral valve, ruled out by the transesophageal echocardiogram (Figures 1-2).

Clinical Hypothesis: In accordance with the guiding signs in addition to the history of catheter infection, our differential diagnosis was reduced to a possible vasculitis of infectious aetiology.

Diagnostic Pathways: The diagnosis was established with the positive result for SASM by blood culture from the previous admission. Treatment was de-escalated to post-hemodialysis cefazolin, previously with cloxacillin and daptomycin due to suspected MRSA.

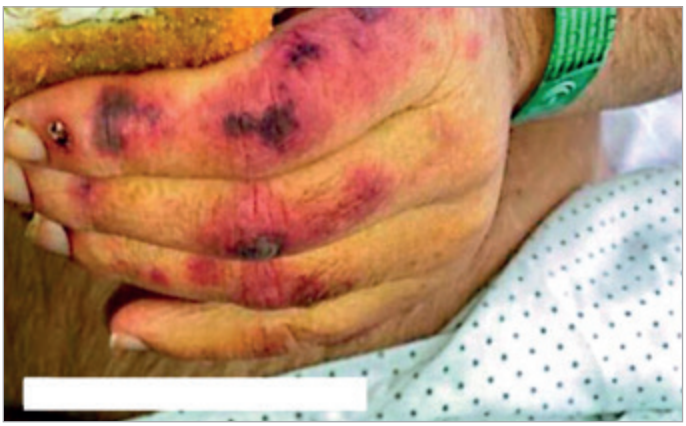
Discussion and Learning Points: Infections associated with hemodialysis catheters are an important cause of morbidity and mortality. Coagulase-negative staphylococci of the most implicated microorganisms and those caused by *S. aureus*, which are associated with greater complications.

The diagnosis of these infections is based on clinical symptoms, laboratory abnormalities, microbiological results and clinical improvement after its withdrawal. Regarding treatment, the first attitude is to decide whether or not to remove the catheter.



#EV0657 Figure 1.

 DOI: 10.12890/2022_V9Sup1



#EV0657 Figure 2.

2035 / #EV0658

MULTIORGAN INVOLVEMENT DUE TO CYTOMEGALOVIRUS: A CASE REPORT

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Background and Aims: Cytomegalovirus (CMV) infection is quite frequent and most often asymptomatic. However, in immunocompromised patients, the occurrence of severe cases is not negligible with a wide spectrum of presentation, including retinitis, pneumonia and colitis.
Methods: Case Report.
Results: A 45-year-old man, with a recent diagnosis of HIV infection C3 stage, was admitted to the hospital with constitutional symptoms, fever and diarrhea, over the last ten days. Physical examination showed signs of dehydration and epigastric pain on deep palpation, with increased frequency of bowel sounds. He had started antiretroviral therapy ten days before. The complementary study performed revealed a positive stool culture for *Giardia lamblia*. Empiric therapy with metronidazole was started, with poor clinical response. An abdominopelvic CT scan was performed, revealing thickening of the colonic wall and lower gastrointestinal endoscopy revealed extensive, ulcerative proctocolitis, suggesting viral infection. Colonic biopsy samples collected identified endothelial inclusions secondary to CMV infection, confirmed by immunohistochemical studies. Additionally, he developed cholestatic hepatitis, secondary to CMV. Therapy with ganciclovir, followed by vanciclovir, was started with favorable clinical and analytical outcome.
Conclusions: CMV colitis, although rare, is the most common extraocular manifestation of CMV infection in immunocompromised patients. The clinical course can be fatal, due to the possibility of colonic perforation. This case of CMV colitis, superinfected with *Giardia lamblia*, and cholestatic hepatitis reinforces the importance of suspecting this entity in immunocompromised patients with fever and diarrhea.

1095 / #EV0659

CEREBRAL THROMBOSIS, IN PATIENT WITH ENCEPHALITIS BY RICKETTSIA CORONII WITHOUT SKIN INJURIES

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Case Description: 55 year-old man. Caucasian. Personal History: Dilated cardiomyopathy, extremities thrombosis, known homeless. Usual medication: rivaroxaban, espironolactone, rosuvastatine, AAS, carvedilol. Entrance to emergency room: Sudden deep unconsciousness status with decerebracy movements after convulsive crisis.
Clinical Hypothesis: Brain thrombose in patient with encephalitis by *Rickettsia coronii*, without exanthema.
Diagnostic Pathways: Analytical. Hemogram: leucocytosis with neutrophilia. Biochemical: PCR and D-dimer elevated. Renal function: creatinine 1.59 mg/dL. Hepathic function: Normal. Cardiologic markers: without sings of necrosis. Arterial gasimetry (With O2 to 5L/min by nasal gases): pH 7.4, pO2 49, HCO3 11.8, Lactatum 2.6, Sat O2 92%. ECG: Ssnusal rhythm to 120bpm, T negatives waves in aVL,aVF and V4 to V6. Cranial TC: Didn´t present sings of acute vascular brain event or hemorrhagic, nevertheless presents sings of brain edema (but without compromise of cerebellum tonsils). Angio-TC: small consolidated focus in lingular left superior segment, and in basals lobes suggestive of etiological infectious. Hemocultures: negative. Urocultures: negative. Hematological serologies: negatives, except for *Rickettsia* with post mortem results
Discussion and Learning Points: In zones were *Rickettsia Coronii* is endemic (Like Alentejo), we should consider the hypothesis of rickettsiosis in patients, with clinic of encephalitis and non typical agents isolated as no conclusive diagnosis proves, so we should addition intracelular pathogenic coverture, and consider the addition of an extra anticoagulant dose in patients with infection clinics. Like doxicicline, a higher heparin dose (Like patients with high embolic risk), or fluorquinolone, sulphametoxazol-trimethoprim can be used as an alternative of doxicicline with these initial experimental measures maybe we could reduced the mortality in these cases.

859 / #EV0660

PERICARDITIS DUE TO NON-TUBERCULOUS MYCOBACTERIA

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Case Description: A 73-year-old woman, with multiple vascular risk factors, was admitted to the Emergency Department due to

 DOI: 10.12890/2022_V9Sup1

syncope. Initial evolution was unfavorable with shock and multi-organ dysfunction.
Clinical Hypothesis: Pericardial effusion of etiology under study.
Diagnostic Pathways: The pulmonar angio-CT and echocardiogram excluded pulmonary thromboembolism and showed a large volume pericardial effusion conditioning cardiac tamponade - evacuative pericardiocentesis was performed with na output of 600 mL of hematic liquid. The bacteriological, mycobacteriological, and research of malignant cells of the pericardial liquid and bronchoalveolar lavage were negative. The autoimmune study and human immunodeficiency virus were negative, TSH was normal and electrophoresis of serum proteins had no monoclonal peak. The patient had a good clinical evolution. 42 days after performing a pericardiocentesis, there was isolation of a *Mycobacterium* intracellulare strain in the cultural examination of the pericardial fluid. Then, the patient initiated anti-tuberculostatic therapy.
Discussion and Learning Points: Infections with *Mycobacterium avium complex* (MAC) microorganisms are a type of non-tuberculous infection, that mainly affects the respiratory tract; extrapulmonary manifestations, such as pericarditis, are rare. They are more common in immunocompromised patients, notably those with human immunodeficiency virus. In immunocompetent patients, the disease is more common in men with alcoholic and/or smoking habits and structural pulmonary disease. It is fundamental to consider that MAC may infect individuals without systemic immune dysfunction or structural lung disease, sometimes presenting with less typical clinical presentations, such as pericarditis. This case is also interesting as this microorganism was only isolated in the pericardial fluid, with a clinical presentation in cardiac tamponade.

1154 / #EV0661

PSOAS ABSCESS AND SO ON – A MANAGEMENT CHALLANGE

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Case Description: 42-year-old man with history of hypertension and dyslipidemia, was presented with progressive lumbar pain, with three weeks of evolution, associated more recently with fever (maximum 38.5ºC), nocturnal hypersudoresis, anorexia, weight loss and gait claudication. There was no other focalizating symptom, history of trauma, surgeries, or epidemiological context.
Clinical Hypothesis: Clinical suspition was of a retroperitoneal infectious process.
Diagnostic Pathways: Blood tests showed elevated inflammatory markers. Body CT showed heterogeneity of right vertebral drip and iliopsoas muscles, with homolateral central hypodensity and densification (L4 -L5 level and sacred plexus roots). The study was completed with MRI, which confirmed the presence of subdural abscess with no indication for surgical drainage. From the etiological investigation, *Staphylococcus epidermidis* was isolated in two of the four blood cultures and a sample of the right paravertebral muscle abscess was collected by percutaneous puncture. Due to the small sample size, only the mycobacteriological examination was performed, which was negative. The patient was put on antibiotics with ceftriaxone and initiated motor rehabilitation, with good clinical, analytical and radiological evolution, after 3 weeks of therapy, partially fulfilled in the outpatient clinic.
Discussion and Learning Points: Psoas abscess is a rare entity with unspecific symptoms, making the diagnosis a challenge and potentiating complications, especially if no risk factors are identified in the clinical interview. To add, the difficulty in collecting exudate samples can turn it in a management challenge, if blood cultures are negative. With no focus of direct or distant dissemination, nor agent isolation, its therapy is empirical and guided by clinical and radiological evolution only.

1022 / #EV0662

SHAKY HAND

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Case Description: The authors present a case of a 40-year-old-man, born and raised in Angola, with a known history of pulmonary tuberculosis, who came to emergency department with complaints of a shaky hand. On observation he initially presented myoclonic jerks on the right hand that rapidly progressed to generalized tonic-clonic crisis.
Clinical Hypothesis: Epileptic seizure.
Diagnostic Pathways: Blood test and lumbar puncture results were normal, but the computed tomography (CT) and magnetic resonance imaging (MRI) scans showed 2multilobulated cystic masses in the brain suggestive of diagnosis neurocysticercosis.
Discussion and Learning Points: Neurocysticercosis is an infection of Central Nervous System caused by the ingestion of *Taenia solium* larva eggs, typically present in undercooked pork meat and contaminated water. It is considered one of the most common etiologies of preventable epilepsy in many developing countries, which can be diagnosed with CT or MRI of the brain. The treatment includes pharmacologic or surgical approaches. The purpose of this paper is to emphasize the importance of early diagnosis and treatment of neurocysticercosis. Although a common pathology, it is still misdiagnosed and undertreated.

 DOI: 10.12890/2022_V9Sup1

1359 / #EV0663

UNCOMMON CLINICAL PRESENTATION OF TUBERCULOSIS

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Case Description: Tuberculosis (TB) is a granulomatous infectious disease, with extrapulmonary presentations namely the pleura and peritoneum, among others. Abdominal TB corresponds to 5% of all cases worldwide. Male, 54 years-old, Indian living in Portugal for several years, alcoholism, went to the Emergency Department presenting dry cough, diffuse abdominal pain and fever. He was diagnosed acute tracheobronchitis and medicated with azithromycin and ibuprofen. Ten days later he returned due to persistent fever and appearance of purpuric lesions in lower limbs (LL).

Clinical Hypothesis: On admission he was febrile and had palpable purpuric lesions in the LL, with plaque areas and no palmplantar involvement and elevation of inflammatory markers. He was admitted to Internal Medicine Ward with hypothesis of vasculitis of unknown etiology.

Diagnostic Pathways: Of the study he had negative microbiology cultures, viral serologies and autoimmunity, abdominal echography showed hepatomegaly, aspects of chronic liver disease, CT scan with moderate right flank ascites, thickening and enhancement of the peritoneum suggestive of peritonitis. Paracentesis confirmed spontaneous bacterial peritonitis and cefotaxime was started. ADA was requested in the peritoneal fluid, which was positive and PCR also positive for *M. tuberculosis*. After multidisciplinary discussion, he was submitted to surgery and biopsy showed involvement of the parietal peritoneum and appendix due to non-necrotizing granulomatous disease, compatible with peritoneal TB.

Discussion and Learning Points: Authors emphasize the importance of clinical manifestations of TB in the diagnostic of febrile syndrome. Peritoneal TB is rare and usually presents with ascites, abdominal pain and fever. The incidence of TB has decreased, nevertheless must be present as a differential diagnosis hypothesis.

1413 / #EV0664

CYTOMEGALOVIRUS PNEUMONITIS IN A HEART TRANSPLANTATION PATIENT: A LATE PRESENTATION

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Case Description: A 68 years-old male with a past medical history of hypertension, dyslipidaemia, heart transplant 8 years ago and chronic kidney disease (CKD). The patient was admitted in the emergency room with fever, dry cough, myalgias and arthralgias. He was febrile. Lab results: anaemia, lymphopenia, elevated serum creatinine and hyperkalaemia. Chest x-ray was unremarkable. Blood and urine samples were taken. The patient started a broad-spectrum antibiotic empirically and was admitted for further investigation.

Clinical Hypothesis: Febrile syndrome in a heart transplant patient

Diagnostic Pathways: Blood and urine cultures, immunological tests, including antinuclear antibodies, rheumathoide factor, immunoglobulins, and complement were negative. HIV, viral hepatitis and syphilis were also negative. CMV antibodies IgM e IgG were positive. A thoracic CT-scan showed a right pleural effusion with ipsilateral bronchial collapse. An echocardiogram was performed, and was negative for vegetation's. CMV retinitis and colitis were excluded. We assumed a CMV pneumonitis. Treatment with valganciclovir was started with favourable response and negative viral load at the end of treatment.

Discussion and Learning Points: CMV infection is a common infection in solid organ transplantation recipient in the first year; but rarely occurs in later years. The clinical manifestations are unspecific, so the level of suspicious must be high. The hypothesis of rejection must be present and was ruled out. Secondary prophylaxis wasn't recommended.

2345 / #EV0665

KALA-AZAR IS IN TOWN

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Case Description: We present the clinical case of a 63-year-old man, resident in a big city, without relevant medical history, admitted for having fever (40ºC) for the last five days and backache. He does not visit frequently the countryside and has no pets. The blood test shows thrombocytopenia of 90,000/µL and leukopenia of 3,130/µL (2,100/µL neutrophils and 600/µL lymphocytes), elevated acute phase reactants (fibrinogen 453 mg/dL, CRP 5.1 mg/dL), and elevated LDH (275 U/L) and beta2-microglobulin (5 mg/mL). The urine sample is normal. The autoimmunity is negative and he has a polyclonal IgG peak. Serologies for HIV, HBV, HBV, parvovirus B19, EBV, CMV and quantiferon are negative, while toxoplasma and leishmania are not available at that moment. Blood cultures are negative and peripheral blood smear is normal. A CT-body shows splenomegaly and no lymphadenopathies are visualized.

Clinical Hypothesis: The clinical presentation represents an interesting differential diagnosis with hematological disorders versus atypical infections.

Diagnostic Pathways: A bone marrow biopsy was performed showing no alterations. Meanwhile, a positive result in serology

 DOI: 10.12890/2022_V9Sup1

(indirect immunofluorescence) is received for *Leishmania* and PCR test done in bone marrow aspirate confirms: *Leishmania donovani*. We start amphotericin B with favorable clinical evolution.
Discussion and Learning Points: Visceral leishmaniasis is an infectious disease with very low incidence in immunocompetent adults and a higher incidence in rural areas. Although the corner stone for diagnosis in immunosuppressed patients is the evidence of amastigotes in the bone marrow aspirate, it is not the same for immunocompetent people, for whom the serology can be the key, and as it happens in this case.

2097 / #EV0666

EOSINOPHILIA AND RECURRENT PERICARDITIS: OCKHAM VS HICKAM

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Case Description: A 29-year-old black man presents with recurring left pleuritic chest pain, with no relation to movements and worsened with decubitus and eases when he leans forward for the past 6 months that motivated 3 previous admissions to the emergency department where typical cardiac causes were excluded and was medicated with nonsteroidal anti-inflammatory drugs (NSAID) with improvement but recurrence of symptoms. His past medical history is unremarkable and denies recent use of medications or recreational drugs. No important findings are observed on physical examination.
Clinical Hypothesis: Pericarditis; Infection; Muscle Pain.
Diagnostic Pathways: On ECG sinus rhythm and an upward and concave ST-segment elevation (DI, DII, avF, v4-v6 and reciprocal st depression and PR elevation in V1 and aVR) but normal echocardiogram and cardiac MRI with slight pleural effusion. Laboratory tests showed: elevation in white blood cell count; high eosinophil count, rhabdomyolysis but normal troponin levels, elevated cytocholestasis parameters, and slightly elevated C-reactive protein and erythrocyte sedimentation rate. Abdominal CT findings were multiple confluent, hypodense, nonenhancing subcapsular nodules later confirmed in MRI. Further investigation revealed elevated serum immunoglobulin E, hypergammaglobulinemia, negative auto-immune panel, positive antibody titter for fasciola of 1/640, and excluded other infections. Diagnosis of fascioliasis was confirmed and treatment with triclabendazole with good clinical, analytical and imagiological response.
Discussion and Learning Points: Clinical and laboratory findings of fascioliasis may easily be confused with several diseases there is a need for a high clinical suspicion in non-endemic areas for prompt diagnosis and treatment. Signs and symptoms of ectopic fascioliasis may confuse and lead the clinician to misdiagnose.

853 / #EV0667

EMPIRICAL ANTIBIOTICS IN PATIENTS ADMITTED FOR FEVER IN INTERNAL MEDICINE

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Background and Aims: To perform a descriptive analysis of the use of empirical antibiotics in Emergency Care and its adequacy to previous microbial isolation in patients requiring admission to Internal Medicine (IM).
Methods: Retrospective study of 186 patients admitted to IM from the Hospital Emergency Department (ED) with a diagnosis of fever without apparent focus in a tertiary centre during the months of May to October 2019.
Results: A cohort of 186 patients was analysed, with a mean age of 63 years (range 15-99 years) and a sex distribution of 62% males and 38% females. It was observed that 71% of patients received the first dose of empirical antibiotics in the ED, the most frequent being ceftriaxone (47%), piperacillin-tazobactam (22%), levofloxacin (17%) and amoxicillin-clavulanic acid (9%), and combined treatment with >2 antibiotics in 13%. Of those who did not receive empirical antibiotics in the ED (29%), 81% were considered to have fever of infectious origin at discharge. Of these, 25% had previous infectious foci, of which 63% had previous microbiological (bacterial) isolates. All of them received antibiotics during their admission to IM. In patients with a discharge diagnosis of fever of non-infectious origin, no foci or previous microbiological isolates were found.
In patients with a discharge diagnosis of fever of non-infectious origin, 40% received a first dose of empirical antibiotics in the ED and 28% of these had both previous focus and microbiological isolation.
Conclusions: The use of empirical antibiotics in the first contact with hospital is a pillar of infection treatment. Working for a correct use of empirical antibiotics is fundamental to develop effective antibiotic policies.

 DOI: 10.12890/2022_V9Sup1

208 / #EV0668

COMPLICATIONS OF AN INFECTIOUS ENDOCARDITIS

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Case Description: We describe the case of a 64-year-old woman, with previous history of rheumatic fever, mitro-aortic bi-discal mechanical protheses, heart failure (HF) and atrial fibrillation (warfarin), admitted to the emergency department (ED) due to 3weeks-old asthenia becoming bedridden, anorexia and weight loss.Two days before coming to the ED, the patient began having ocular pain and left ptosis with blurry vision. On admission: bi-basal crepitations, reduced generalized strength and, on the left eye, purulent drainage, conjunctival hyperemia and hypopyon.On analysis: Reactive-C-protein 72.5 mg/L, NT-proBNP 4492, INR 4.3 (with posterior normalization) and leukocyturia.Thoracic x-ray showed diffuse interstitial thickening compatible with lung edema and bilateral small volume pleural effusion.No acute events on head CT.
Clinical Hypothesis: We assumed HF exacerbation due to urinary tract infection and left eye endophthalmitis. She was then submitted to vitrectomy and intra-vitreal antibiotics.
Diagnostic Pathways: *E. faecalis* was isolated from blood cultures, while no agent grew in urine culture, hence empirical ceftriaxone was suspended, and began vancomycin and gentamycin. Due to maintained fever, transthoracic echocardiography was performed, although it did not support infectious endocarditis (IE), it was later confirmed with transesophageal echocardiography. The patient later developed generalized seizures secondary to left parenchymatous and subarachnoid hemorrhages probably due to mycotic aneurysms. Hypocoagulation was suspended.
Discussion and Learning Points: This clinical case demonstrates the importance of search and control of infectious origins when facing a bacteremia and complications of IE: acute HF and mycotic aneurisms with hemorrhage. It is crucial to understand the dynamics of IE recognizing all possible complications in order to prevent them or identify and control them.

2043 / #EV0669

ONLY PSOAS ABSCESS?

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Case Description: A 83-year-old woman with a history of hypertension and hypothyroidism was admitted to the hospital due to pain and inflammation in the left lumbar region. She had a left hip prosthesis and was quite sick for a while when she was young but she does not remember it. Although she denied having had fever, she referred loss of appetite and weight. She has never travelled out of Spain. She lived with her healthy husband and she denied contact with people who had have tuberculosis. On examination, in her left lumbar region a 10 cm diameter fluctuating and warm mass was found.
Clinical Hypothesis: Pyogenic, fungal or mycobacterial abscess.
Diagnostic Pathways: A computed tomography of the abdomen was performed showing a large abscess of 64x63x225 mm with extension along the psoas muscle, and the left kidney presents an atrophic appearance and was mostly replaced by calcifications (Mastic kidney). The abscess was drained and a smear microscopy was performed showing alcohol resistant acid bacilli.
Discussion and Learning Points: Urogenital tuberculosis is responsible of 30 % of extrapulmonary tuberculosis cases, and occurs in 2 to 20 percent of individuals with pulmonary tuberculosis, and it is second most frequent form of extrapulmonary tuberculosis after lymph node involvement. Urogenital tuberculosis is an insidious disease and most patients develop symptoms in late stage of the disease, delaying diagnosis. The patient was treated during nine months with antituberculous therapy (two months with isoniazid, rifampicin, pyrazinamide, and ethambutol, followed seven months with isoniazid and rifampicin). In the culture a *Mycobacterium tuberculosis* drug-sensitive grew.

1217 / #EV0670

AN ODD PRESENTATION OF BRUCELLOSIS

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Case Description: A 89-years-old male patient, with psoriasis and a previous history of peptic ulcer, was admitted to the emergency department due to low back pain with 2 weeks evolution, associated with recent fever and acute confusion. At examination, he had purpura on both lower limbs, initially mistaken for a psoriatic crisis. The blood work showed anaemia, low platelet count and mild renal dysfunction.
Clinical Hypothesis: We first considered nephrolithiasis and urinary tract infection as main diagnostics.
Diagnostic Pathways: The back pain was due to fracture of D12 and L1 vertebrae. Due to the fever and thrombocytopenic purpura, we considered the possibility of a zoonotic infection, and started the patient on doxycycline. He had close contact with several domestic animals, including unvaccinated goats. The response was swift, with evolution to petechia in under 48 hours of treatment. The serological analysis showed positive IgM for *Brucella*, with negative IgG title, giving us a presumptive diagnosis of brucellosis. A vertebral CT scan excluded spondylitis, but disclosed signs of severe osteoporosis. This, with anaemia and renal dysfunction, opened the possibility of multiple myeloma, later confirmed. The

 DOI: 10.12890/2022_V9Sup1

patient was discharged after 10 days, completing the treatment with doxycycline and rifampicin at home.
Discussion and Learning Points: Thrombocytopenic purpura is not a common presentation of brucellosis, with only a few cases reported in the literature In this case, the epidemiological context was crucial for the clinical suspicion and subsequent investigation.

Centers for Disease Control (CDC) Brucellosis Reference Guide 2017
Young E et al. Clinical Infectious Diseases. DOI: 10.1086/318129

1281 / #EV0671

LATE DIAGNOSIS

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Case Description: There are multiple causes of altered mental status, especially in older patients. This case is about a female patient, 82-years-old, with high blood pressure and type 2 diabetes. She was found fallen at her home, with hypothermia. She lived alone, in poor condition and unable to self-care. At admission, she was dehydrated, responded only to painful stimulus and had no signs of head trauma; the blood analysis showed rhabdomyolysis.
Clinical Hypothesis: Urinary tract infection was suspected and she was started on antibiotics.
Diagnostic Pathways: By the third day, she was better; but in the next days she presented fluctuation of conscience again, Glasgow as low as 8. She had hepatomegaly; there was no rash, petechiae or meningeal signs. She developed lymphocytosis, thrombocytopenia, cholestasis and renal dysfunction. CT scan showed no signs of stroke. We considered the hypothesis of leptospirosis, given the poor hygiene in which she was found, with rat faeces spread on the ground, which would also explain the clinical findings. Cerebrospinal fluid analysis was postponed due to severe thrombocytopenia and she was started on doxycycline. There were no spirochetes in urine but the serology came positive two weeks later. Unfortunately, the patient died due to COVID-19.
Discussion and Learning Points: A doctor should always have in mind the context of the patient, for which is paramount to produce the correct diagnosis, in proper time.

Han, J. et al. Clin Geriatr Med. DOI: 10.1016/j.cger.2012.09.005
Brett-Major DM et al. Cochrane Database Syst Rev. DOI: 10.1002/14651858.CD008264.pub2

649 / #EV0672

LUNG MASS IN MIDDLE LOBE

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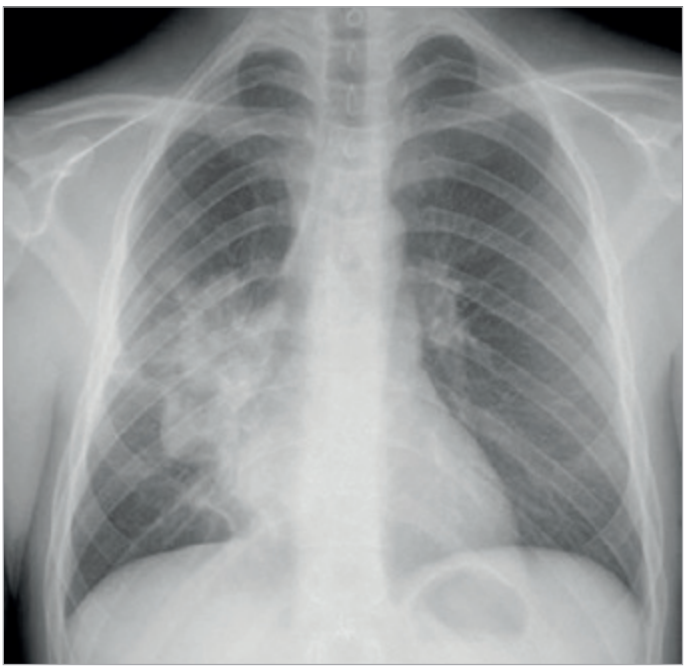
Case Description: A 23-year-old man presents left subcostal pain of 2 day-evolution without previous trauma and not related to postures or intake. Relevant personal background includes smoking of 10 cigarettes/day, unprotected sexual relations with different partners and productive cough for the past 8 months. Examination revealed pain upon deep palpation of the left hypochondrium and a 1 cm left inguinal lymphadenopathy. Blood test showed leukocytosis and elevation of acute phase reactants. Chest X-ray revealed an hilar infiltration in the middle lobe (Figure 1).
Clinical Hypothesis: Cancer; atypical pneumonia; tuberculosis; lymphoma.
Diagnostic Pathways: Serology results for atypical pneumonia, rubella, syphilis were negative. Mantoux test, sputum culture and sputum smear were also negative. Chest CT scan and PET revealed a lung mass in right hilum and middle lobe that extended towards the right paraesophageal region, associating hypermetabolic adenopathies in different locations, all suggestive of malignancy. Fibrobroncoscopy was performed and *Mycobacterium tuberculosis* grew in the bronchial aspirate of a mediastinal adenopathy and in sputum sample. This, added to clinical improvement after antituberculous treatment, confirmed the diagnosis of pulmonary tuberculosis.
Discussion and Learning Points: Tuberculosis is a chronic necrotizing granulomatous highly contagious disease caused by a bacillus called *Mycobacterium tuberculosis*. The most common location is the lung. The first stage of the infection is known as primary tuberculosis. It's usually asymptomatic or manifests with self-limited fever and cough remaining latent until reactivation years later. This occurs insidiously with predominantly evening fever, sweating and productive cough associated with constitutional syndrome. Its early diagnosis and treatment is important both to prevent spreading and possible negative health consequences.



#EV0672 Figure 1.

662 / #EV0673

CANDIDEMIA WITH FOCUS OF ENDOPHTHALMITIS IN RELATION TO CENTRAL CATHETER, IMMUNODEPRESSION AND PARENTERAL NUTRITION

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Case Description: A 62-year-old woman diagnosed with locally pancreatic adenocarcinoma under active chemotherapy treatment presents uncontrolled pain of 3 months-evolution in hypogastric despite the use of opioids that conditions her daily activity. Examination revealed normal auscultation, anodyne abdominal examination and an implantable catheter (port-a-cath) without signs of infection. Blood test showed pancytopenia secondary to chemotherapy and the abdominal ultrasound shows a wall thickening of the descending colon and sigmoid. It was decided to start broad-spectrum antibiotic therapy and parenteral nutrition through the port-a-cath.
Clinical Hypothesis: Infectious or Immune-mediated colitis
Diagnostic Pathways: During hospital admission, after a feverish peak, blood cultures were taken from peripheral venipuncture and from the port-a-cath with microbiological isolation of *Candida parapsilosis*. Intravenous Fluconazole was started an the implantable catheter was removed. Endocarditis and abdominal abscesses were ruled out, but a cottony focus suggestive of *Candida endophthalimitis* was detected on the ophthalmologic examination. The patient wastreatment for 6 weeks from the first negative blood culture, with complete resolution of the condition.
Discussion and Learning Points: The isolation of *Candida* in a blood culture should not be considered contamination and should prompt evaluation for metastatic infection. This includes an ophthalmologic examination, abdominal imaging and an echocardiography. Treatment consists of monotherapy, usually with azoles or echinocandins. For patients with candidemia in the absence of metastatic complications, a minimum of two weeks of therapy after blood cultures become negative has been used. For patients with candidemia and metastatic complications it is necessary a longer duration of therapy, usually four-six weeks and if there is a catheter it should be removal.

2470 / #EV0674

MICROBIOLOGICAL CHARACTERISTICS OF DIABETIC FOOT INFECTION IN OUR HOSPITAL

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Background and Aims: The empirical antibiotic treatment is key in diabetic foot infections. The aim of this study is to describe the miocrobiological characteristics of infected diabetic foot in our hospital.
Methods: 127 patients with infected diabetic foot were collected from June 2020-June 2021 from Hospital Universitario Puerta del Mar, Cádiz. Microbiological diagnose was made by skin biopsy.
Results: 40,2% were polymicrobial infections. Gram negative bacilli infection was prevalent, with *Pseudomonas aeuriginosa* as the most frequent, followed by *Staphylococcus aureus*. MARSA frequency was very low.
Conclusions: The prevalence of MARSA was very low in comparision to other hospitals.

 DOI: 10.12890/2022_V9Sup1

Microorganisms (n=187)	Number	%
ENTEROBACTERIA	86	46%
Enterobacter cloacae	14	7,5
Serratia marcenses	14	7,5
Escherichia Coli	12	6,4
Proteus mirabilis	11	5,6
Morganella morganii	8	4,3
Klebsiella pneumoniae	6	3,2
Citrobacter freundii	5	2,7
Klebsiella aerogenes	3	1,6
Proteus vulgaris	3	1,6
Citrobacter koseri	3	1,6
Serratia fonticola	2	1,1
Proveidencia rettgeri	2	1,1
Proteus penneri	1	0,5
Citrobacter guilleni	1	0,5
Leclercia adecarboxylata	1	0,5
NO LACTOSE FERMENTER GRAM NEGATIVE BACILI	42	22%
Pseudomonas aeruginosa	29	15,5
Stenotrophomona maltophila	10	5,3
Pseudomonas brassica	1	0,5
Alcaligenis faecalis	1	0,5
Achromobacter xylosoxilans	1	0,6
STAFILOCOCCUS	31	16,5
Staphylococcus aureus	23	12,3
Staphylococcus epidermidis	5	2,7
Staphylococcus lugdunensis	2	1,1
Staphylococcus haemolyticum	1	0,5
STREPTOCOCCUS	6	3,30%
Streptococcus constellatus	3	1,6
Streptococcus dysgalactiae	3	1,6
ENTEROCOCCUS	9	5%
Enterococcus faecalis	8	4,8
Enterococcus faecium	1	0,5
ANAEROBES	10	5,30%
Bacteroides fragilis	7	3,7
Bacteroides thetaiomicron	2	1,1
Prevotella bivia	1	0,5
FUNGHI	1	0,50%
Candida parasilopsis	1	0,5

#EV0674 Table 1.

1099 / #EV0675

A POINT PREVALENCE STUDY OF ANTIMICROBIAL PRESCRIBING IN AN INPATIENT POPULATION

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Background and Aims: Antimicrobial Resistance (AMR) is a global health threat often attributed to poor antimicrobial prescribing and misuse of antimicrobials. Our study aimed to compare prescribing compliance with the Royal College of Physicians of Ireland (RCPI) ''Start Smart, Then Focus'' guideline, which comprises 13 elements in a 2 step process.

Methods: Inpatient notes and drug charts were reviewed in a single day in a 255-bedded acute hospital. Compliance was assessed by trained investigators. Data were entered onto an excel spreadsheet and analyzed using descriptive statistics.

Results: We reviewed 150 cases. The average(SD) age was 72(14) years with a male: female ratio of 1:1. 100 out of 150 patients screened were on at least one antimicrobial, of which 88% (n=88) were antibiotics. 89% (n=89) had documented evidence of infection. 33% (n=33) had cultures taken prior to commencing empirical antimicrobial treatment. 83% (n=83) documented the indication for antimicrobial use in the medical chart. 59% (n=59) documented the indication in the drug chart. 11% (n=11) documented a review/stop date in the medical chart. 17% (n=17) documented a review/stop date in the drug chart. Dose, route, and frequency were documented in 98%, 100%, and 100% of charts respectively. 74% documented clinical review and test results on day 2 onwards, 75% of cases documented a decision to switch, stay, or change antimicrobial. 32% of revised prescriptions met prescribing standards.

Conclusions: A high rate of anti-microbial prescribing was found with a low rate of compliance with the RCPI guidelines. We aim to do a series of audits to improve compliance.

2338 / #EV0676

DIPLOPIA AND DIABETES MELLITUS TYPE I, LEADS TO A FASCINATING DISCOVERY...

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Case Description: 78-year-old male, type-2-diabetic with poor control, consults due to a 4-month history of sudden falls in which he is affected by intense weakness and hypotonia of LL. Associated, weight loss of 18 kg in the last year. A UTI was detected and treated with amoxicillin-clavulanic-acid 7 days. In the absence of improvement, he returned requiring assessment by ENT and NRL, who requested a non-contrast cranial CT, which revealed

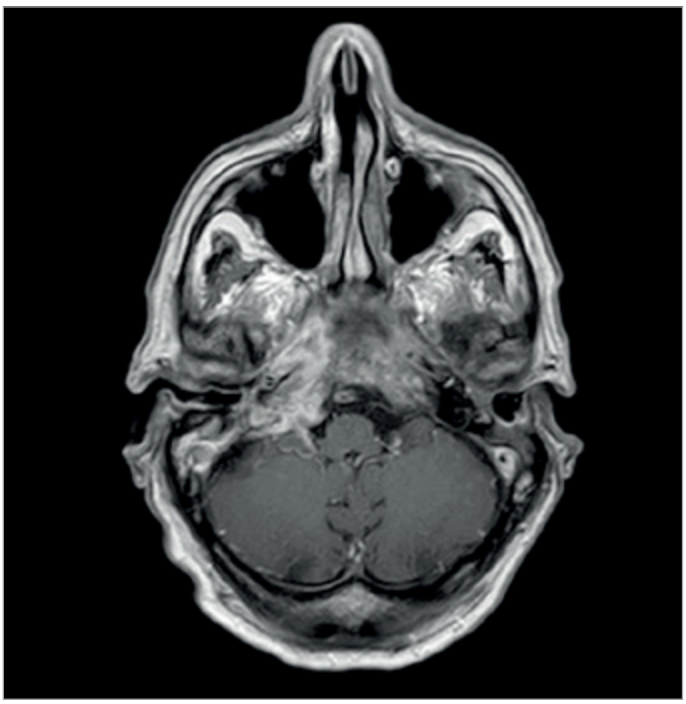
DOI: 10.12890/2022_V9Sup1

no findings, so he was admitted for further study. Examination revealed dysmetria of UL in the finger-nose maneuver, abolished reflexes and slight muscular atrophy in LL.

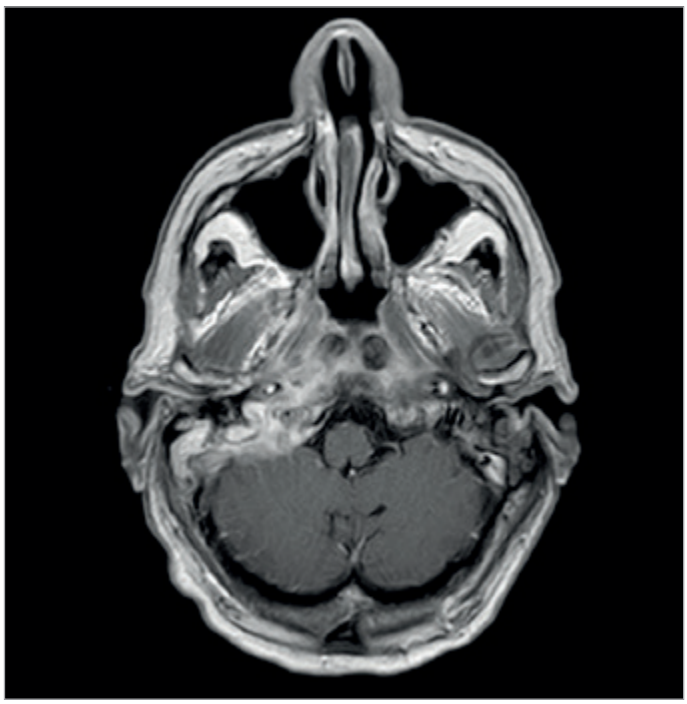
Clinical Hypothesis: Urine culture isolated *Klebsiella oxytoca* (sensitive to A/C, ciprofloxacin) and *Pseudomonas aeruginosa* (sensitive to ciprofloxacin). Noting that the *Pseudomonas* was not tested to A/C, the symptomatology was attributed to UTI, and IV-ciprofloxacin was started, with no improvement.

Diagnostic Pathways: Given the apparent involvement of the LMN, an electroneurogram was performed which showed severe sensory polyneuropathy in UL(normal electromyogram). A brain MRI was scheduled, and LP showed subacute mononuclear-meningitis, with negative cultures and PCR. As it was a subacute condition without glucose consumption or fever, and due to the suspicion of neoplastic infiltration, a thoraco-abdomino-pelvic-CT, gastroscopy and colonoscopy were performed without evidence.

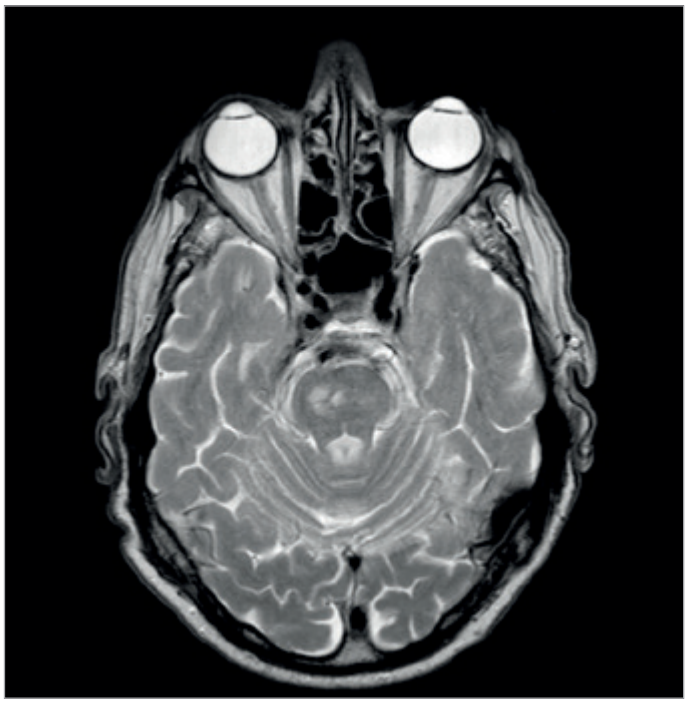
Discussion and Learning Points: The patient progressively worsened, with sudden onset of dysphagia and right hemicranial headache. MRI showed an acute right infarction of the pons, a right AOM as an extension of a malignant otitis externa, complicated with a 15x6 mm abscess. After myringotomy, right mastoidectomy and empirical antibiotherapy with piperacillin-tazobactam 4 gr IV/6h, ciprofloxacin 400 mg IV/12h, voriconazole 200 mg/12h, 6 weeks, improvement was observed.



#EV0676 Figure 1.



#EV0676 Figure 2.



#EV0676 Figure 3.

DOI: 10.12890/2022_V9Sup1

342 / #EV0677

FACTORS ASSOCIATED WITH SUSTAINED VIRAL RESPONSE AND IMPACT ON COMORBIDITIES IN A COHORT OF HIV/HCV COINFECTED PATIENTS IN CÁCERES, SPAIN

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Background and Aims: The goals of this study is to analyze the characteristics of HIV/HCV co-infected patients under follow-up by Internal Medicine at Cáceres in the last ten years and to assess the impact on comorbidities after reaching sustained viral response (SVR).
Methods: Observational, descriptive and retrospective study in which all HIV/HCV co-infected patients in Cáceres were included. Sociodemographic characteristics; main comorbidities; clinical and analytical parameters related to HIV infection were analyzed.
Results: Of the 278 patients analyzed, 100% of patients achieved sustained viral response after HCV treatment. Regarding the comorbidities analyzed, of the 68 (24.5%, 217.6 patient-years of follow-up) patients with AHT, 50 (73.52%) presented improved BP figures after achieving SVR that allowed reduction of antihypertensive treatment; of the 55 (19.8%, 242 patient-years) patients with DM2, 35 (63.63%) achieved improvement of glycemic controls with reduction of 0.3-0.5 points of HbA1c. Of the 108 (38.8%, 388.8 patient-years) patients analyzed with a diagnosis of dyslipidemia, 101 (93.51%) showed improvement with >5-point decrease in c-LDL in analytical controls after achieving SVR. Regarding the degree of liver fibrosis measured by hepatic elastrography, a statistically significant improvement (McNemar-Bowker's $\chi 2$ 56.60; p=0.0001) was observed after reaching SVR as we can see in Table 3. The second measurement by hepatic elastrography was performed at an average time of 12 months after reaching SVR.
Conclusions: With the data obtained and in our experience, the elimination of HCV infection can modify the natural history of comorbidities such as dyslipidemia, cryoglobulinemia, depression, symptoms consistent with Sjögren's syndrome, lichen planus and porphyria cutanea tarda.

1414 / #EV0678

MENINGOENCEPHALITIS IN AN IMMUNOSUPPRESSED PATIENT

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Case Description: *Mycobacterium tuberculosis* infection is highly prevalent worldwide, with immunosuppression being a risk factor for infection or reactivation of latent disease. The meningeal form has an indolent presentation, which, together with the lack of sensitivity of the direct examination and the absence of timely cultural results, makes diagnosis difficult and delays the start of therapy.
Clinical Hypothesis: 84-year-old male with a history of arterial hypertension, atrial fibrillation, rheumatoid arthritis; Under methotrexate and oral anticoagulation 2-month history of temporal-spatial disorientation and visual acuity deficit. Admitted to the Emergency Room with paresis of the left upper limb.
Diagnostic Pathways: Analytically: no increase in inflammatory parameters or other changes. Brain tomography with severe stenosis of the right internal carotid artery, without acute injury. The hypothesis of cerebrovascular accident without image translation is admitted. Repeat imaging assessment without acute injury. Lumbar puncture with glucopenia and proteinorrhachia 46,400 Leucotics –90% mononuclear. *Mycobacterium tuberculosis* PCR positive (with high resistance to Isoniazid). He started treatment with rifampicin, pyrazinamide, levofloxacin, ethambutol, dexamethasone. Pulmonary involvement was excluded. 5 months later, he presents an altered state of consciousness and undergoes a new imaging exam that reveals extensive cerebellar vascular accident.
Discussion and Learning Points: The case presented here is of importance due to the nonspecificity of the clinical picture, in an immunosuppressed patient with risk factors for a cerebrovascular event. In the absence of fever and elevation of inflammatory parameters, a high degree of suspicion is essential for the diagnosis and the initiation of timely therapy.

2462 / #EV0679

A DIFFERENT KIND OF CHEEK

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Case Description: A 87-year-old female, with stage 3 chronic kidney disease and type 2 diabetes mellitus, went to the ER due to difficulty in food intake, weight loss and pain in the left parotid region with 2 weeks of evolution. On admission, the patient was hemodynamically stable, with fever, hard oedema, heat and pain in the left parotid, retroauricular and submaxillary regions and trismus. Blood sample showed a clear increase in inflammatory parameters and worsening of renal function (creatinine 4.8 mg/dL). Neck CT scan revealed marked prominence and inflammatory densification of the left parotid and adjacent cervical fat, thickening of the pharyngeal wall and ipsilateral parapharyngeal space and reactive cervical adenopathy.
Clinical Hypothesis: The patient was warded with the diagnosis of parotitis and acute renal insufficiency. Corticosteroid therapy and empirical antibiotic therapy with metronidazole was started.
Diagnostic Pathways: Blood cultures and culture from parotid's purulent exudate isolated a methicillin-resistant *Staphylococcus aureus* (MRSA) and switch to vancomycin was conducted. Neck CT scan was repeated on the 20th day of targeted antibiotic therapy, showing areas of cystic necrotic content and interior

 DOI: 10.12890/2022_V9Sup1

septation of the left parotid, suggesting abscessed collections. We addressed Otorhinolaryngology, which concluded that there was no surgical indication, given spontaneous drainage. The patient completed 34 days of vancomycin, with favourable evolution, maintained apyrexia, inflammatory parameters' and renal function normalization.
Discussion and Learning Points: Adult parotitis appears more frequently in the elderly, when increased frailty and dehydration are present. It should be diagnosed and treated on time, due to the risk of adding morbidity in this population.

2466 / #EV0680

LOW BACK PAIN: THIS TIME DO NOT DISCHARGE

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Case Description: A 53-year-old male went to the ER with insidious onset of low back pain, fever and vomiting. On admission, he exhibited hypotension, tachycardia, fever and bilateral Lasègue sign, without motor or sensory deficits. On blood analysis it was found thrombocytopenia 52,000/uL, elevation of inflammatory parameters (CRP 38 mg/dL) and creatinine (2 mg/dL). Urine and renal ultrasound were normal. Lumbar spine and abdominopelvic CT had no acute changes.
Clinical Hypothesis: Sepsis diagnosis was established and empirical antibiotic therapy with piperacillin/tazobactam started after blood and urine cultures collected.
Diagnostic Pathways: Lumbar spine MRI showed features suggestive of spondylitis with epidural channel's phlegm and extension of the infectious process to the paravertebral space of L5. Urine culture was negative. Blood cultures identified a multisensitive *Escherichia coli*, assumed as the causal agent of spondylitis. Amoxicillin/clavulanate and gentamicin were started, having completed 7 days of this last antibiotic. In discussion with Orthopedics, the patient had no surgical indication. Transthoracic echocardiogram ruled out vegetations. During his stay, he had a favourable clinical and analytical evolution. Repeated blood cultures were negative and CT-guided vertebral biopsy did not identify any agent. He was discharged with amoxicillin/clavulanate until completing 6 weeks with a favourable evolution.
Discussion and Learning Points: The aim of this case is to alert to the importance of spondylitis in patients with non-specific low back pain. This disease often presents with nonspecific signs and symptoms, its diagnosis lacks a high level of suspicion, being sometimes an underdiagnosed entity.

1254 / #EV0681

SPONTANEOUSLY RESOLVING FEVER AND RASH – WHEN THE ANSWER IS THE THE ANAMNESIS

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Case Description: Female, 66 years old, park cleaner. History of pleural effusion (tuberculosis) at 25 years age. Recent introduction of magnesium metamizole for pain complaints. Presents in the ER with left chest pain, with asthenia and excessive perspiration (since menopause). Complaints of fever and cutaneous lesions, not pruritic. No story of travelling or animal contact. On examination, maculopapular rash on the trunk, lower limbs purpura. Analytically, 13.00 g/dl hemoglobin, 14 140/ul leukocytes, 11750/ul neutrophils. Normal platelets, renal function and liver profile, PCR 20 mg/dl. Proteinuria 100 mg/dl. During hospital stay, remained febrile, with rash progression to the back, limbs, palms and soles. 850/ul eosinophils with aminotransferases three times above limit.
Clinical Hypothesis: Mediterranean Spotted Fever (MSF) with acute interstitial nephritis due to metamizole magnesium.
Diagnostic Pathways: Autoimmune study, viral serologies, zoonoses panel, wright and rose bengal reaction, all negative. No urine or blood cultures isolations. Bronchial secretions with negative mycobacteriological study. 24-hour urine with 273 mg/dl proteins. No changes in thoracoabdominopelvic CT or echocardiogram. After maintained apyrexia, negative inflammatory parameters, complete resolution of skin lesions and urinary alterations, without any antibiotic therapy or other, the patient was discharged. In short-term re-evaluation, IgG 1:128 for MSF, suggestive of early response to recent infection.
Discussion and Learning Points: Mediterranean Spotted Fever (MSF) is an endemic zoonosis in Portugal. Despite the classic triad, the clinic can be diversified. It requires a high degree of suspicion, being often underdiagnosed. In this case, it's ilustrated that, in healthy patients, even with analytical alterations, it is a potentially benign, self-limited, entity.

1476 / #EV0682

OPPORTUNAL TOXOPLASMA GONDII INFECTION IN HIV POSITIVE PATIENT

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Case Description: In patients infected with human immunodeficiency virus (HIV) and CD4 count <100 cells/microL, toxoplasmosis is the most common central nervous system

 DOI: 10.12890/2022_V9Sup1

infection. With the introduction of antiretroviral therapy (ART) and adequate prophylaxis, the incidence of cerebral toxoplasmosis has reduced dramatically.
Clinical Hypothesis: 51-year-old black female with a previous diagnosis of type 1 HIV and treatment default presented with transient language alteration and headache with 1 month of evolution. At initial observation she did not present with focal neurological deficits,however,she developed a psychotic episode and was started on antipsychotics with subsequent stabilization. She was admitted for further investigation.
Diagnostic Pathways: She underwent cranioencephalic computed tomography (EC CT) that revealed left anterior frontal/parasagittal vasogenic edema and cranioencephalic magnetic resonance imaging (EC MRI) with probable cerebral toxoplasmosis abscesses and vasogenic edema. Cerebrospinal fluid with pleocytosis by predominance of mononuclear and hyperproteinorrhaphy with negative cytology for neoplastic cells. Analytically, HIV type I viral load was 74,887copies/mL and CD4 count 19/microL. ART was initiated. Complementary evaluation highlighted positive anti-*Toxoplasma gondii* IgG antibody.Infection by EBV, *Cryptococcus neoformans*, bacterial or mycobacterial infection and JC virus were excluded. The patient met criteria for presumptive diagnosis of cerebral toxoplasmosis and therapy with sulfadiazine and pyrimethamine associated with calcium folinate was initiated.EC MRI for reassessment with marked improvement of the lesions.
Discussion and Learning Points: Early diagnosis of cerebral toxoplasmosis is often presumptive, based on typical clinical findings,CT or MRI findings and the presence of IgG positive T.gondii in patients with CD4 counts <100 cells/microL.The preferential treatment is the combination of sulfadiazine and pyrimethamine, as well as initiation of ART.

1324 / #EV0683

RICKETTSIAL INFECTION CAUSING MESENTERIC PANNICULITIS

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Case Description: A 81-years-old female admitted with 10-days of fever, abdominal pain, intense nausea and vomiting, was firstly discharged with the diagnosis of viral gastroenteritis. Three days later, she was seen again because of persistent fever, abdominal pain, asthenia, anorexia, profuse night sweating and pale stools. Rash or itching were denied, as well as jaundice. Physical examination was unremarkable, except for a hard and slightly painful mass in the upper abdomen. Liver transaminases, amylase, GGT, bilirubin and C-reactive protein were high. Abdominal CT scan showed densification of mesenteric fat at the root of the mesentery, with multiple small mesenteric ganglia, increased attenuation of mesenteric and perinephric fat aspects compatible with mesenteric panniculitis.
Clinical Hypothesis: During hospitalization, continued to have a daily fever. Intravenous doxycycline was initiated to treat a possible bacterial infection and fever subsided over 48hours.
Diagnostic Pathways: Serological tests diagnosed her with a Rickettsia infection and excluded infectious hepatitis, coxsackie, toxoplasmosis or Qfever. Autoimmune disease and previous trauma or abdominal surgery were excluded. Abdominal CTscan six weeks after treatment showed a complete disappearance of abnormalities.
Discussion and Learning Points: Mesenteric panniculitis is a rare disease that affects the part of the mesentery that contains fat cells. Its specific cause is not known, but studies show that may be related to autoimmune disease, abdominal surgery or trauma, bacterial infection or vascular problems. It causes chronic inflammation that damages and destroys fatty tissue in the mesentery. This uncommon clinical scenario should be considered for differential diagnosis, in the management of patients with high grade fever, abdominal pain and palpable mass.

630 / #EV0684

NEUROSYPHILIS AS A DIFFERENTIAL DIAGNOSIS OF CONFUSIONAL STATE

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Case Description: 81-year-old female patient, with a history of hypertension, diabetes and hypertensive encephalopathy, admitted to the Internal Medicine service due to COVID-19 pneumonia. Upon admission, bronchodilator treatment was started with progressive clinical improvement, remaining afebrile and eupneic. However, during admission, she presented headache and fluctuating disorientation. Analytical tests were requested upon admission, which included syphilis serology, being positive with a RPR 1/4, TPHA 1/1280 titer and positive Treponema pallilum antibodies. Given the concurrence of neurological symptoms and positive serology, a lumbar puncture was performed, which did not have cellular or protein alterations and the serology was negative. Therefore, and with a diagnosis of latent latent syphilis, treatment with penicillin G benzathine 2.4 Million IU was started.
Clinical Hypothesis: Mainly, despite the fact that the patient was admitted for respiratory support and treatment of pneumonia due to COVID-19, given the symptoms of fluctuating confusional syndrome, disorientation and the serology for positive syphilis in plasma, the main suspicion is neurosyphilis. Another diagnostic alternative for the clinic presented by the patient would be that it was due to her hypertensive encephalopathy or her chronic supratentorial ischemic involvement due to small vessel angiopathy.
Diagnostic Pathways: Serology for syphilis in plasma, computerized axial tomography, analysis of cerebrospinal fluid (serology for syphilis and basic analytics).
Discussion and Learning Points: It's important to be aware

 DOI: 10.12890/2022_V9Sup1

of the diagnostic alternative for the ethiology of confusional syndrome, and on the other hand it's important to know the therapeutic options that are available for the kind of Syphilis we are encountering.

1030 / #EV0685

VARICELLA ZOSTER VIRUS INDUCED DISEASE: NOT ONLY IN THE IMMUNOCOMPROMISED HOST.

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Case Description: A 19 years old male presented with fever and headache since 4 days. On physical examination, neck stiffness was noted. There was no skin rash.
Clinical Hypothesis: Meningitis in a patient without significant past medical history.
Diagnostic Pathways: CT-scan of the brain was normal. Lumbar puncture revealed clear cerebrospinal fluid, with an elevated protein concentration (1640 mg/dl) and an increased white blood cell count (951/mm^3) with lymphocytic predominance. Empiric treatment with acyclovir IV 750 mg/8h and ceftriaxone IV 2 g/12h was started, and diclofenac IV 75 mg/12h was associated for symptom relief. PCR on cerebrospinal fluid turned out to be positive for VZV. Screening for immunocompromising disorders was negative. The further clinical course was complicated by acute kidney injury KDIGO stage 3. Although no urinary crystals were seen, kidney injury was presumed to be secondary to the administration of acyclovir in combination with NSAID. Both medications were stopped and IV hyperhydration with isotonic saline was applied. Clinical evolution was favourable, with disappearance of headache on day 4 and complete recovery of kidney function on day 8. Brain MRI performed on day 9 was normal.
Discussion and Learning Points: This case illustrates that Varicella zoster virus should be considered as a possible cause of aseptic meningitis in immunocompetent individuals. Typical skin rash is not always present, indicating the ability of latent virus in the spinal gangia to reach the central nervous system directly. Although the optimal therapy has not been determined yet, IV acyclovir is generally recommended. Close surveillance of kidney function is thereby warranted.

2653 / #EV0686

FACIAL EDEMA, A RARE PRESENTATION TO A COMMON DISEASE

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Case Description: A 19-year-old female patient presents to the emergency room with an 11-days history of fever and insidious onset of facial, predominantly periorbital, edema. A stable hepatic hemangioma is the only relevant medical prior. On examination the patient was tachycardic, apyretic, with a hyperemic oropharynx, non-painful cervical adenopathies, periorbital and facial edema and a miliar petequial exanthem in the glabella and orbital regions. A recent urinalysis showed mild proteinuria and erythrocyturia.
Clinical Hypothesis: Given the 11-day history of fever, facial edema, adenopathies and proteinuria, our main differentials were mononucleosis syndrome versus glomerulonephritis.
Diagnostic Pathways: To clarify the diagnosis, a complete blood count, serum biochemistry, full serologic search for relevant viruses and imagiological studies were performed. The initial work-up revealed mild leukopenia with lymphocytosis, liver dysfunction and increased reactive-C-protein. The Paull-Bunnel reaction was positive. Serological search revealed a previous CMV infection; HIV and viral hepatitis serologies were negative. Both IgG and IgM antibodies for EBV were present. The abdominal-CT and renal/abdominal ultrasound were unremarkable except for the referred hepatic hemangioma.
Discussion and Learning Points: Facial, and periorbital, edema has a broad spectrum of differential diagnosis that can be a challenge even to experienced clinicians. Infectious mononucleosis has a high prevalence amongst young adults; however, systemic manifestations, such as the one we describe, are rare and might lead clinicians into other directions. With this case we aim to highlight an unusual presentation, in this case facial edema, of infectious mononucleosis.

579 / #EV0687

FROM IMMUNOSUPPRESSION TO INFECTION

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Case Description: Male, 48 years old, independent. He came to emergency room with occipital migraine which got worse with osthostatism that had started a week ago. History of HIV infection diagnosed 20 years ago. Withou chronic medicaton. Lived with his wife and had two cats. At neurological examination: left dysmetria at finger-to-nose test, without other neurologic

 DOI: 10.12890/2022_V9Sup1

deficits. Soft pain in cervical region palpation. Brain CT: multiple lesions with vasogenic edema and regional mass effect on left cerebellar hemisphere, orbitofrontal and bilateral occipital region. Angiography: without identified lesions with injection of contrast wich made the diagnostic hypothesis of brain tumor less possible. He had been hospitalized to find the ethiology and histology of the lesions. Serologies and autoimmunity tests: *T. gondii* IgM e IgG, EBNA IgG e VCA IgG, Herpes 1 IgG:positives; HBV, HCVR ,EBV, IgM herpes 1 e 2, *Mycoplasma tuberculosis*, *Cryptococcus neoformans* negatives; Blood cultures: negatives; CD4+ 10%,CD3+75%, Viral load of 18,000 copies/mL. Brain MRI:cerebral toxoplasmosis lesions with associated HIV infection. He has started a double therapy with pyrimethamine and sulfadazine for 14 days. After 15 days he has repeated the brain CT: edema reduction of the multiple brain lesions and he was discharged from the hospital keeping follow-up in the infectiology department.
Clinical Hypothesis: Brain Tumor.
Diagnostic Pathways: Toxoplasma serologies and autoimmunity tests, brain CT and MRI, anamnesis.
Discussion and Learning Points: This case report higlights the importance of a good anamnesis. A patient with HIV infection, immunocompromised, is more susceptible to opportunistic infections, like toxoplasmosis. The fact that the patient has two cats as pets reinforced this diagnostic hypothesis.

431 / #EV0688

METASTATIC METHICILIN-SUSCEPTIBLE STAPHYLOCOCCUS AUREUS

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Case Description: The Methicilin-Susceptible *Staphylococcus aureus* (MSSA) bacteremia may have serious complications known as "metastatic infections" such as endocarditis and arthritis.
Clinical Hypothesis: The delayed initiation of antibiotherapy, persistent fever and high C Reactive Protein are some of the preditive factors of these infections.
Diagnostic Pathways: We present the case of a 46 years-old male, addmited for a first episode of liver cirrhosis decompensation, stage Child-Pugh C. During his hospital stay he developed intense neck pain with inability to walk and to keep standing position. He refered alcoholic consumption and several falls. A magnetic resonance (MR) showed "C0-C2 osteomyelitis with extensive prevertebral abscess and reaching epydural space at C1-C7; abscessed focus and medular molding at C2" The inflammatory markers were negative. The etiologic study showed blood cultures positive to MSSA and ecocardiography without signs of vegetation. Antibiotherapy was started and a neurosurgery referral was made. Neurosurgeons exclude the need of abscess drainage, recommended spine stabilisation untill the end of antibiotherapy and a new referral by then. At 3rd week he developed hand edema and inability to grip. A MR showed "osteomyelitis of the carp and 2nd-4th metacarpal bones"" The patient was treated with a 8 week regimen of flucloxacilin and rifampicin. The revaluation MR showed "osteomielitis sequelae at C2; reparation processes; no signs of active infection" and revaluation blood cultures were negative. He is doing physical rehabilitation while awaits a liver transplant. After that a new referral to neurosurgery will be done.
Discussion and Learning Points: This case reminds us the importance of a thorough clinical history and physical examination.

680 / #EV0689

DISSECTING THE CORRELATES OF N-TERMINAL PROHORMONE BRAIN NATRIURETIC PEPTIDE IN ACUTE INFECTIVE ENDOCARDITIS

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Background and Aims: To explore the prognostic value and the correlates of NT-proBNP in patients with acute infective endocarditis, a life-threatening disease, with an often unpredictable outcome given by the lack of reliable prognostic parameters.
Methods: We retrospectively studied 337 patients admitted to our centre between January 1, 2006 and September 30, 2020 with available NT-proBNP level at admission. Our analyses were performed considering NT-proBNP as both a categorical variable, using the median value as the cut-off level, and numerical variable. Study endpoints were in-hospital mortality, cardiac surgery and 1-year survival.
Results: NT-proBNP was an independent predictor of in-hospital mortality (OR 14.9 [95%C.I. 2.46–90.9]; P=.003). Levels below 2926 pg/mL were highly predictive of a favourable in-hospital outcome (negative predictive value 96.6%). Patients with higher NT-proBNP levels showed a significantly lower survival rate at 1-year follow-up (log-rank P=.005). NT-proBNP was strongly associated with chronic kidney disease (P<.001) and significantly higher in patients with prior chronic heart failure (P=.001). NT-proBNP was tightly related to staphylococcal IE (P=.001) as well as with higher CRP and hs-troponin I (p=0.023, P<.001, respectively).
Conclusions: Our results confirm the remarkable prognostic role of NT-proBNP in patients with IE and provide novel evidence of its multifaceted correlates in this unique clinical setting. Our data strongly support the incorporation of NT-proBNP into the current diagnostic workup of IE.

 DOI: 10.12890/2022_V9Sup1

940 / #EV0690

GLOBAL INFLUENZA HOSPITAL SURVEILLANCE NETWORK (GIHSN) 2020-21 SEASON PROJECT IN TURKEY: UTILIZATION OF INFLUENZA SURVEILLANCE FOR TACKLING SARS-COV-2

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Background and Aims: GIHSN project has been utilized to quantify the distribution of respiratory viruses and define the clinical burden of SARS-CoV-2 among hospitalized cases.

Methods: Prospective epidemiological active surveillance was performed using a standard protocol (https://www.gihsn.org/the-network/protocol-and-questionnaires). Patients with an acute process due to a predefined condition and hospitalized in the previous 72 hours were approached. Those who comply with influenza-like illness criteria were swabbed for the detection of respiratory pathogens.

Results: Between December 22, 2020 and May 29, 2021, 143 patients were swabbed, 13 (9.1%) of whom were under 5 years of age. While no respiratory pathogen was detected among patients under 5 years of age, only SARS-CoV-2 was detected in 70 (53.5%) of the patients 5 years and older. Majority of the enrolled patients were male and had a very high chronic disease burden. Longer length of stay was noticed for patients over 5 years of age and for patients with at least one chronic disease. Both the prevalence of underlying diseases and the frequency of disease severity correlates were higher among patients ≥ 65 years of age when compared to adult patients between 18-64 years of age. In general, the age and the burden of chronic diseases seem to be related with poor outcomes irrespective of SARS-CoV-2 positivity.

Conclusions: Surveillance systems can easily be adapted to tackle emerging pathogens. The project revealed very valuable results in terms of the lack of circulation of influenza and other viruses in a time when the sentinel and SARI surveillance were totally disrupted in Turkey.

60 / #EV0691

CUTANEOUS BACILLARY ANGIOMATOSIS IN AN ELDERLY IMMUNOCOMPETENT PATIENT

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Case Description: Bacillary angiomatosis is a rare vascular proliferative disease, first described in immunocompromised patients, characterized by cutaneous lesions and visceral involvement. It is caused by *Bartonella* species infection, gram negative bacteriae. Our patient was an elderly, previously healthy, farmer who was admitted due to the progressive appearance of numerous raised, cutaneous, dark red lesions on his legs, measuring from one to two centimeters in diameter, accompanied by causalgia. He reported no other symptoms. The patient was afebrile. During the physical examination the lesions were painless not similar to erythema nodosum nor to vasculitis lesions. The liver and the spleen were not palpable and there was no presence of enlarged lymph nodes.

Clinical Hypothesis: Preliminary blood tests revealed increased ESR and CRP levels alongside with low platelet count. Anti-nuclear antibodies, anti neutrophilic cytoplasmic antibodies and Mantoux test came up negative. Imaging studies via chest x-ray and ultrasound imaging of the abdomen revealed no abnormal findings.

Diagnostic Pathways: Skin biopsy was performed on the lesions on the legs of the patient which revealed bacillary angiomatosis. The patient's blood was tested for the presence of *Bartonella* antibodies which came up positive. The patient was initially administered clarithromycin for one month followed by doxycycline for another two months. The lesions and causalgia were resolved completely.

Discussion and Learning Points: The suspicion of cutaneous bacillary angiomatosis is based largely on clinical findings while skin biopsy is crucial to set the diagnosis. Its treatment is based in the administration of antibiotics with the duration ranging from 8-12 weeks in order to prevent relapses.

DOI: 10.12890/2022_V9Sup1

976 / #EV0692

CONCURRENT SKIN INFECTION WITH NOCARDIA SP. AND MYCOBACTERIUM CHELONAE IN AN IMMUNOCOMPROMISED HOST

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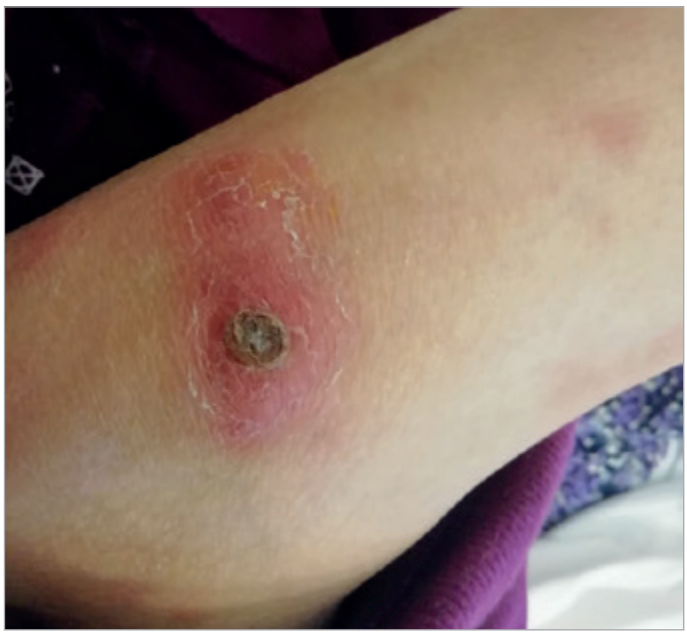
Case Description: A woman in her sixties initially presented with multiple nodular erythematous lesions bilaterally on the lower extremities. She had received a renal transplant 13 years ago and had been under treatment with everolimus, tacrolimus and methylprednisolone. Skin biopsy revealed leukocytoclastic vasculitis of small and medium-sized vessels and abscess formation. Due to co-existence of arthritis affecting the small joints of both hands, vasculitis was initially attributed to seronegative rheumatoid arthritis, and the patient was started on high doses of glucocorticoids. Gradually, over a period of 5 months, the nodules increased in number, presented an ascending pattern and ulcerated (Figure).

Clinical Hypothesis: Skin disorders and especially infections have a high incidence in transplant recipients. *Nocardia* sp. and nontuberculosis mycobacteria (NTM) are opportunistic human pathogens and important causes of pulmonary and extrapulmonary disease in immunocompromised hosts.

Diagnostic Pathways: Nodule biopsy and culture were performed. Initial gram stain revealed gram positive beaded and branched bacteria suggestive of Nocardia sp. While awaiting culture results, the patient was started empirically on imipenem/silastatin and amikacin, as for disseminated nocardiosis, although chest X-ray was unremarkable. 4 days later culture grew NTM (*Mycobacterium chelonae*), so linezolid and clarithromycin were added while awaiting susceptibility results. Unfortunately, the patient deteriorated rapidly, underwent intubation due to acute respiratory failure and died.

Discussion and Learning Points: *Nocardia* and NTM co-infections are rare and only sparsely found in the literature. This report aims to highlight the importance of early clinical suspicion of these organisms in the differential diagnosis of skin lesions especially in immunocompromised hosts, so as to optimize management and improve patient outcomes.



#EV0692 Figure 1.

988 / #EV0693

XDR AND PDR ACINETOBACTER BLOODSTREAM INFECTIONS IN A TERTIARY GREEK HOSPITAL

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Background and Aims: Extensively Drug-Resistant (XDR) and Pan-Drug Resistant (PDR) *Acinetobacter baumanii* (Ab) bloodstream infections (BSIs) are associated with unfavorable outcomes and high mortality rates. The purpose of this study was to investigate the epidemiology of resistant strains of *A. baumannii*, assess clinical efficacy of the various treatment regimens and patients outcomes among hospitalized patients with XDR and PDR Ab-BSIs.

Methods: From March 2020 to January 2021 we prospectively collected and recorded patients with BSIs from XDR or PDR A. baumanni treated in a tertiary Greek hospital. The isolates and minimum inhibitory concentrations (MICs) were identified by MicroScan diagnostic microbiology system. Broth microdilution (BMD) was used for colistin susceptibility testing and e-test for tigecyclin.

Results: 23 cases with complete data were analyzed. 7/23 patients had XDR Ab BSI and 16/23 had PDR Ab BSI. The median age was 72 years (33-84). The mean updated Charlson Comorbidity Index was 4.82. 14/23 (60%) had a recent hospitalization in a general ward or were long-term care facility residents, while 5/23 (21.7%) had a recent ICU stay. 14/23 (60%) had secondary BSI, with catheter-related BSI being the most common cause in 6/14 (42%). 14/23 (60%) received combination therapy with 3 antibiotic regimens consisting of colistin, tigecycline and either meropenem or ampicillin/sulbactam. 6/23 patients died without receiving

DOI: 10.12890/2022_V9Sup1

appropriate therapy. In-hospital mortality was 60.8% (14/23) and there were 10 acinetobacter bacteremia-attributed deaths.
Conclusions: The above findings highlight the importance of antimicrobial stewardship, infection control strategies and further research for potential effective antimicrobials.

1776 / #EV0694

COLD AGGLUTININ SYNDROME IN AN ADULT PATIENT WITH ACUTE EBV INFECTION

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Case Description: A 51-year-old woman presented to us with fever, malaise and fatigue. She was apparently well 8 days ago, when she initially developed fever with chills (up to 38.6° C), followed by progressively worsening malaise and fatigue. At evaluation, the patient was hemodynamically stable, afebrile, without any complaint other than fatigue. Her skin tone was mildly pale. Other than that, the physical examination was unremarkable. No lymphadenopathy, palpable splenomegaly or pharyngitis was noted. Her laboratory results on admission revealed macrocytic anemia with hemoglobin [Hb]: 7.5g/dl (normal limits: 12-16 g/dl), lymphocytosis, elevated AST, ALT, LDH and ferritin. Abdominal ultrasound revealed mild splenomegaly.
Clinical Hypothesis: Considering the patient's history of presenting disease and the fore-mentioned laboratory and imaging findings, there was high clinical suspicion of Epstein-Barr Virus (EBV) infection.
Diagnostic Pathways: Serologic test was positive for EBV - viral capsid antigen (VCA) IgM and IgG, as well as real-time EBV polymerase chain reaction (PCR). Further investigation concerning the patient's anemia, revealed positive direct agglutination test for C3d (++). A peripheral blood smear showed mild RBCs agglutination and reactive lymphocytosis. Suspecting the presence of cold agglutinin, we requested cold agglutinin titers, which came back positive. The diagnosis of cold agglutinin syndrome secondary to acute EBV infection was made.
Discussion and Learning Points: Infectious mononucleosis is characterised by numerous clinical features and complications, which sometimes can be atypical, especially in adult patients. The diagnosis of cold agglutinin syndrome secondary to acute EBV infection requires high clinical suspicion, thorough investigation and close patient surveillance.

309 / #EV0695

PERFORMANCE OF ADENOSINE DEAMINASE ACTIVITY IN SYNOVIAL FLUID FOR THE EARLY DIAGNOSIS OF TUBERCULOUS ARTHRITIS: A META-ANALYSIS

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Background and Aims: Adenosine deaminase (ADA) activity has shown good performance in diagnosing pleural, peritoneal, and meningeal tuberculosis. Still, the performance of ADA activity in synovial fluid for the diagnosis of tuberculous arthritis has received less attention.
Methods:
We searched Medline and EMBASE from their inception to October 2021 and the American College of Rheumatology and European League Against Rheumatism for conference abstracts (2012-2021) to assess the accuracy of ADA activity in synovial fluid compared to a composite reference standard (necrotizing granulomas in a synovial biopsy; acid-fast stain, Mycobacterial culture or RT-PCR assay for tuberculosis and/or clinical response to tuberculosis treatment) to early diagnose tuberculous arthritis. We performed meta-analyses using a random-effects model and evaluated the sources of heterogeneity via subgroup analysis and meta-regression.
Results: 7 independent studies (N= 307 subjects) that compared ADA activity in synovial fluid with the composite reference standard were included. The pooled sensitivity and specificity of ADA activity was 0.939 (95% confidence interval [CI], 0.873-0.977; heterogeneity p=0.297; I2=17.4%) and 0.885 (95% CI, 0.833-0.925; heterogeneity p= 0.002; I2= 85.3%) compared to the composite reference standard, respectively. The random-effects model for pooled diagnostic Odds Ratio was 74.582 (95%CI, 19.826-280.57; heterogeneity p=0.133; I2=38.8%). The receiver operating characteristic curve area was 0.9617 (95% CI, 0.925-1.000). Meta-regression did not identify the type of study (prospective or retrospective), country of publication, type of assay, or cut-off value as sources of heterogeneity.
Conclusions: Measuring adenosine deaminase activity in synovial fluid demonstrates good performance for the early diagnosis joint tuberculosis.

 DOI: 10.12890/2022_V9Sup1

1679 / #EV0696

ACUTE Q FEVER – A DIAGNOSTIC AND THERAPEUTIC CHALLENGE

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Background and Aims: Unexplained fever is associated with many clinical syndromes and the differential diagnosis is challenging.
Methods: Case Report.
Results: We present a case of a 40–year-old man admitted with high fever of 41ºC, severe headache with photophobia, myalgias, anorexia and fatigue, with 6 days of duration. He was a smoker (20 packs per year) with no relevant medical history. No history of prior infection, intravenous drug abuse, or travelling was reported, but he had been in a farm in contact with livestock one month prior to admission. Physical examination showed a palpable liver and spleen. Blood tests revealed elevation of inflammatory markers and transaminases. Thoraco-abdomino-pelvic CT-scan showed hepatomegaly and splenomegaly. Head CT and transthoracic echocardiogram were normal. Blood and urine cultures were negative. Serum PCR for *Coxiella burnetti* was positive and CSF PCR was negative. A diagnosis of acute Q fever complicated with hepatitis was assumed. Doxycycline was started, leading to fever resolution and progressive decrease of inflammatory markers. As anticardiolipin antibodies were elevated and cytolysis persisted, hydroxycloroquin was initiated, with resolution of cytolysis after 3 days of treatment. After 12 days, the patient was asymptomatic and discharged with follow-up in medical consultation.
Conclusions: Q fever is a zoonotic infection caused by the pathogen *Coxiella burnetti*, which may present with a wide spectrum of clinical manifestations. Interestingly, the presence of antiphospholipid antibodies during acute Q fever has been associated with several complications and a more severe course of disease, thus addition of hydroxychloroquine to the main treatment has a positive impact on prognosis.

997 / #EV0697

PURPLE BAG URINE SYNDROME - A UNIQUE PRESENTATION OF URINARY TRACT INFECTION

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Case Description: An 87 year old institutionalized patient with personal history of stroke, Parkinson's disease, hypertension, dyslipidemia and with long-term indwelling urinary catheter, was brought to the emergency department with prostration starting on the same day. On admission, with glasgow coma score of 10 (E4V2M4). Apyretic, eupneic and dehydrated. Normal cardiopulmonary auscultation as well as abdominal examination. Presence of purplish colored urine in the collecting bag. (Figure 1).
Clinical Hypothesis: Given the findings the main diagnostic hypothesis was acute mental status change in the setting of an urinary tract infection (UTI).
Diagnostic Pathways: Blood tests and urinalysis were carried out with elevation of inflammatory parameters and urinary sediment suggestive of UTI. Thus the main clinical hypothesis was confirmed. The urinary bladder catheter was changed and amoxicillin plus acid clavulanic, 1.2 g every 8 hours, was empirically started. Urine culture was positive for *Providencia stuartii*. Antibiotic therapy was adjusted to cefixime, 400 mg/day, according to the antibiogram.
Discussion and Learning Points: The Purple Bag Urine Syndrome is a rare manifestation of urinary tract infection. Its risk factors are advanced age, female gender, dementia, immobilization, chronic kidney disease, chronic indwelling urinary catheters, among others. In short, this case intends to demonstrate the importance of semiology during the diagnostic process.

#EV0697 Figure 1: Collector Bag with Purple Urine.

 DOI: 10.12890/2022_V9Sup1

331 / #EV0698

PSITTACOSIS – ANAMNESIS AS A DIAGNOSTIC TOOL

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Case Description: A 37-year-old man with no relevant medical history presented with a five-day history of fever, chills, myalgia, diarrhoea, asthenia, and anorexia. He also reported productive cough within the preceding 24 hours. Physical examination was positive for inspiratory crackles in the right hemithorax. Laboratory tests revealed C-reactive protein of 18.33 mg/dL and gamma glutamyl transferase of 203 IU/L. Hemogram was normal. Chest CT-scan showed a subpleural right inferior lobe consolidation with air bronchogram and a contiguous consolidation in the right superior lobe.

Clinical Hypothesis: Community-acquired pneumonia.

Diagnostic Pathways: SARS-CoV-2 test was negative. Antigen detection tests for *Streptococcus pneumoniae* and *Legionella pneumophila* (in urine), as well as for Influenza virus A and B (nasopharyngeal swab) were negative. The patient was discharged with the diagnosis of non-severe community-acquired pneumonia. He was treated with amoxicillin-clavulanate and azithromycin and referred to an Internal Medicine appointment. In this consultation, the extrapulmonary symptoms were prominent which led to the broadening of the epidemiological investigation. A month before the patient developed symptoms, he bought a bird from the Agapornis genus. From then on, he kept occasional mouth-to-beak contact and was responsible for cleaning the animal cage. In this case, despite the absence of an acute-phase blood sample, the one from the convalescent-phase identified anti-Chlamydia psittaci IgG antibody in high titre (1:256). Moreover, Chlamydia psittaci DNA was detected by PCR in the animal faeces.

Discussion and Learning Points: Identification of bird (of any kind) exposure is pivotal to the diagnosis of psittacosis. Thus, proper anamnesis is key. Being psittacosis an atypical pneumonia, extrapulmonary symptoms may be prominent.

2387 / #EV0699

IT'S NOT ALWAYS COVID-19

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Case Description: A 52-year-old male farmer, sought ER care due to fever, headaches, myalgias, and cough, and was flagged as a potential COVID-19 case. He was febrile, dehydrated and crackles were audible upon pulmonary auscultation. While awaiting lab results, chest X-Ray and SARS-CoV-2 test, a more detailed anamnesis identified a 2 week history of working with cattle in tall grass areas and sheep during lambing season. In light of this fact, a close examination of the skin reveled a tick clinging to the patients back.

Clinical Hypothesis: He was admitted with suspected Mediterranean spotted fever vs Q fever, complicated with pneumonia.

Diagnostic Pathways: Serological tests were requested for *Rickettsia conorii*, *Borrelia burgdorferi* and *Coxiella brunetti*. Chest Xray suggested pneumonia. SARS-CoV-2 test was negative. Given that serology test results take time, empirical doxycycline 100 mg/bid was initiated with major improvement being discharged on the 3rd day. Doxycycline was maintained during 14 days.

Discussion and Learning Points: The serology results came back negative and were inconclusive as to which zoonosis was present, but it is known that the presence of *Rickettsia conorii* IgM may take up to 2 weeks to appear which may account for the negative serology result. The first wave of the pandemic COVID-19 brought with it a significant increase of ER visits, but not all were COVID-19 related. This case acknowledges the importance of the anamnesis and epidemiological context, as well as a thorough examination. The presumptive diagnosis reached in the ER allowed for a targeted therapeutic approach and avoided prolonged hospitalization.

773 / #EV0700

INCIDENCE OF RESPIRATORY ISOLATION AND INFECTION DUE TO NON-TUBERCULOUS MYCOBACTERIA BETWEEN 2015 AND 2021

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Background and Aims: There has been an increase in isolation and infection by NTM. Determining the meaning of isolation is challenging, they are usually germs colonizers. Main objectives are to assess the incidence of isolation of MNT and the incidence of isolation in respiratory samples, evaluate the incidence of respiratory infection and describe infected patients characteristics.

Methods: Retrospective descriptive observational study that collects the incidence of isolation and respiratory infection due to NTM at the General Hospital University of Alicante (HGUA) between 2015 and 2021. The ATS/IDSA criteria established in 2017 have been used to determinate the existence of respiratory infection. The clinical-epidemiological characteristics of infected patients were evaluated too.

Results: A total of 65 MNTs were isolated. Isolation in respiratory sample occurred in 61 cases (93.8%) and in a total of 51 patients.14 patients (24.1%) with isolated NTM in respiratory sample met criteria of infection.The most frequently isolated species was Mycobacterium avium intracellullare (8 patients, 58.2%). There

 DOI: 10.12890/2022_V9Sup1

were, in addition, 3 cases of *Mycobacterium kansasii*, 2 cases of *Mycobacterium abscessus* and 1 case of *Mycobacterium chelonae*. Most cases of infection occurred in women (8p, 57.1%) and the mean age of those infected was 59.6 years (IQR: 48.7-68.7). 10 patients (71.4%) had respiratory comorbidity, being the most frequent bronchiectasis (5p, 50%). 11 received treatment patients (78.6%).

Conclusions: One of every 4 patients with NTM isolation met criteria for infection. The main microorganism isolated in these patients was *Mycobacterium avium* intracellullare. Those infected were mostly women and with respiratory comorbidity, mainly bronchiectasis.

53 / #EV0701

THE ROLE OF RADIONUCLIDE SCANNING WHEN OTHER MEDICAL IMAGING MODALITIES HAVE FAILED – A CASE OF SEPSIS OF UNKNOWN ORIGIN

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Case Description: We report a case of a 74-year-old male, with a personal history of Heart Failure with reduced ejection fraction, was admitted to the Internal Medicine department with a diagnosis of septic shock of unknown origin. After hemodynamically stabilized, the patient maintained fever and severe low back pain, exacerbated on palpation of the spinous apophysis of L4/L5. Analgesic therapy was optimized with partial relief of complaints. Started vancomycin, at the doses recommended for bacteremia, right after *Enterococcus faecalis* was isolated on blood cultures. After 2 weeks of antibiotic, the patient remained in sustained apyrexia and with reduced inflammatory parameters, however, he still complained of low back pain with the same characteristics, with severe limitation of mobility.

Clinical Hypothesis: The bacteremia was suspected to be associated with endocarditis or vertebral infection.

Diagnostic Pathways: An etiological investigation of the origin of bacteremia was conducted: chest X-ray, autoimmunity, serologies, cardiac ultrasound, urine culture were all negative. Lumbar spine CT scan showed no targeted changes. Patient has an implantable cardioverter-defibrillator (ICD), which was incompatible with magnetic resonance imaging (MRI). Instead of MRI, we choose to do a Positron emission tomography (PET) scanning, using 18-fluorodeoxyglucose (FDG). The PET confirmed the diagnose of spondylodiscitis and the antibiotic was prolonged until week 6, with clinical improvement and without complications.

Discussion and Learning Points: MRI is the most sensitive imaging technique in cases of suspected vertebral infection. When the diagnostic suspicion is high, PET represents a good alternative exam, particularly in case of contraindications to MRI/ CT.

800 / #EV0702

A CASE OF TUBERCULOSIS SECONDARY TO INTRAVESICAL BCG

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Case Description: A 68-year-old male with personal history of urothelial carcinoma of the bladder, undergoing therapy with BCG, and chronic kidney disease. Hospitalized for pathological fracture of D8-D9 with associated kyphosis.

Clinical Hypothesis: Submitted to thoracic laminectomy and thoracolumbar arthrodesis, with suspicion of spondylodiscitis. In the postoperative period, empirical broad-spectrum antibiotic therapy was started.

Diagnostic Pathways: On the 22nd day after surgery, a control CT showed: "(...) D8-D9 specific spondylodiscitis (...)". Te patient fulfilled 55 days of antibiotic therapy, without imaging improvement. Later, the anatomopathological result of the surgically collected material was known: "(...) Necrotizing granulomatosis with bone and soft tissue involvement (...)""

Discussion and Learning Points: Spondylodiscitis is an inflammatory process, usually infectious, that affects the intervertebral disc and adjacent vertebral bodies. There are several clinical manifestations, usually presenting with an insidious low back pain. Associated risk factors are cancer, chronic kidney disease, diabetes mellitus, obesity, alcoholism, liver failure and immunosuppression. The etiology can be pyogenic, usually by *Staphylococcus aureus*, or granulomatous, mainly caused by *Mycobacterium tuberculosis*. Treatment is conservative, reserving the surgical approach for refractory cases. Spondylodiscitis secondary to BCG therapy is a rare complication. It is believed that there may be propagation through the urinary tract to the Batson's venous plexus and consequent hematogenous dissemination. It was not possible to obtain a positive cultural test for *Mycobacterium tuberculosis*, however this patient had no previous history of tuberculosis and had no evidence of cavitations or adenopathies in imaging exams. Consedering this and the anatomopathological result suggestive of tuberculous spondylodiscitis, this is the most likely diagnosis.

1745 / #EV0703

A PHTISIC SURPRISE

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Case Description: We present the case of a 50-year-old patient who was admitted to the emergency department (ER) in 2019 for aggression. In this context, she was evaluated by the surgery

 DOI: 10.12890/2022_V9Sup1

department and underwent chest radiography which showed no traumatic injuries. She was discharged without additional investigations. In 2021 she was again admitted to the ER because of complaints of cough, hemoptysis, and a 10-kilogram weight loss.
Clinical Hypothesis: Tuberculosis constitutes a prevalent epidemiologic issue in Portugal but is often disregarded from the differential diagnosis. It is a problem to which all medical personnel from all specialties should be aware.
Diagnostic Pathways: The patient underwent sputum sampling and a chest CT scan which confirmed the diagnosis of bacilliferous carvernous pulmonary tuberculosis of the right upper lobe. When analysing past exams, we encountered signs of parenchymal consolidation as early as 2019. The patient is now under treatment but the risk of sequalae is considerable.
Discussion and Learning Points: This case shows the importance of always thoroughly evaluating even the simplest of the exams, even if performed by another doctor and never disregard tuberculosis as a very prevalent infectious disease, even if it is not your area of expertise, as early diagnosis and treatment is crucial for prognosis and transmission reduction.

1352 / #EV0704

A CASE OF SEVERA CEREBRAL MALARIA

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Case Description: A 46-year-old man,with no relevant personal history, arrived at the emergency services with a fever with five days of evolution with myalgias, asthenia and hyperhidrosis. The patient had returned from Mozambique around four days before, when the clinical condition started. The admission was with Glasgow 15, hypotensive, tachycardic and feverish. The objective exam showed no relevant alteration. An analytic test showed evidence of severe thrombocytopenia, the blood smear is positive for *Plasmodium falciparum* with a parasitemia value of 30%. High values of bilirubin and PCR were found, without others alterations. Regarding blood gases, there was increased metabolic acidity and lactates. The patient was admitted to the intermediary care unit and started treatment with artesunate 24 mg/kg.
Clinical Hypothesis: During the first hours of hospitalization, the patient presented a Glasgow 7 associated with two episodes of generalized tonic clonic movements and loss of sphincters control.
Diagnostic Pathways: A CT of the skull was performed, with no evidence injuries. Due to the aggravation of various organic dysfunctions, including kidney, cardiovascular, respiratory, and hepatic dysfunction in need of a kidney replacement technique and ionotropic support and ventilatory support.Serial dosing of the parasitemia value was done, which value was of <1% 72 hours after the beginning of the treatment.
Discussion and Learning Points: The patient's evolution started to be positive 72 hours after the begging of the treatment, with progressive weaning off the support therapeutics. In total, five days of artesunate were completed.At the time of the discharge, the patient was conscious, hemodynamically stable

298 / #EV0705

AN OUTBREAK OF LISTERIA MONOCYTOGENES. ANALYSIS OF CASES OF LISTERIOSIS IN A FIRST LEVEL HOSPITAL

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Background and Aims: Listeriosis is a low prevalence disease in humans, so there is little evidence regarding the best antibiotic treatment although the mortality is up to 30%. Objectives: comparing the clinical characteristics of the patients who had listeriosis in our hospital. Describing the different regimens of treatment and its development, comparing out and inpatient admision.
Methods: Descriptive, retrospective and observational study of all cases of invasive listeriosis in the Hospital San Juan de Dios-Aljarafe (Seville) as a result of a food outbreak in the summer of 2019. Identification of cases by isolation in blood cultures. Clinical-microbiological variables and comorbidities of the patients were analyzed.
Results: N=21; 12 women (57.1%). Median age: 44 (1-94). 5 patients(23.8%) had cardiovascular risk factors (hypertension: 4; diabetes: 1; dyslipidemia: 3). 3 patients(14.3%) were immunosuppressed. Symptoms: 100% fever, nausea/vomiting and diarrhea. 3 patients(14.3%) neurological. Median onset of symptoms: 2 days(1-5). Isolates: 100% blood cultures.Growth was also obtained in 2 samples of cerebrospinal fluid: glucose 50 mg/dL, proteins 149.45 mg/dL, leukocytes 126 cells (mononuclear predominance) [median parameters]; 50% ADA positive. 100% sensitive to the antibiotics tested (ampicillin, meropenem and trimethoprim/sulfamethoxazole). Median of treatment: 14 days (14-28), with direct oral treatment with cotrimoxazole in 9 patients (42.8%). 9 patients (42.8%) required hospital admission, only 1 patient to Intensive Care. Mean hospital stay: 10 days excluding admission to the ICU (increasing to 19 days). There was no death or recurrence of the episode.
Conclusions: In epidemic outbreaks of listeriosis, patients without comorbidity or serious clinical-analytical data could be managed on an outpatient basis provided that close clinical surveillance is guaranteed.

DOI: 10.12890/2022_V9Sup1

1021 / #EV0706

EFFICACY AND SAFETY OF FOSFOMYCIN DISODIUM IN PATIENTS WITH BACTERIAL INFECTIONS

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Background and Aims: Data on the use of fosfomycin disodium formulation are limited; the aim of this study is to evaluate the efficacy and safety of Fosfomycin disodium in our hospital.

Methods: In a single-centre observational study, we retrospectively studied 32 patients treated with fosfomycin disodium from September 2016 to September 2020, focusing on clinical outcomes and adverse events.

Results: Fosfomycin disodium was mostly used to treat pneumonia (50%), administered for a median duration of 10 days and at the dose of 4 gr/6 h in 18 cases (56.3%). Fosfomycin was always co-administered with other antibiotics. CRP levels decreased in 28 patients (87.5%) from the initial median level of 13.7 mg/dL to 4 mg/dL ($p<0.001$). During treatment, we observed a decrease in serum creatinine levels especially in patients with chronic kidney disease and a median decrease of SOFA score of 3 points. We also observed a decrease of serum potassium levels of 0,9 mEq/L ($p=0.01$) particularly in patients suffering from kidney dysfunction, a reduction of serum calcium levels of 0,7 mEq/L ($p=0.01$) and serum magnesium levels of 0,3 mg/dL ($p=0.01$) and an increase of serum sodium levels of 4.5 mEq/L ($p<0.001$). 9 patients died during the hospitalization, but only 2 of them died during treatment with Fosfomycin disodium due to end-stage heart failure.

Conclusions: Fosfomycin appears to be a valuable and effective option to treat complicated infections and could play a role in kidney functional improvement but requires careful monitoring of the electrolyte panel, especially in patients suffering from heart failure.

536 / #EV0707

A CASE OF PNEUMOCYTOSIS JIROVECII PNEUMONIAE IN NON-HIV PATIENT FOLLOWING A LOW DOSE OF CORTICOSTEROID WITH NO OTHER RISK FACTOR

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Case Description: Male patient, 62 years old, with a recent hospitalization due to a frontal cerebral abscess that has been identified *Streptococcus intermedius*. Treated with targeted antibiotic therapy for 8 weeks, and due to the cerebral edema, was medicated with corticosteroid and completed a total of 60 days, with a favorable clinical and imaging course. 2 weeks after medical release starts with fever and disorientation.In cerebral imaging evaluation, the abscess persisted with overlapping morphology and dimensions, and an innocent cerebrospinal fluid study. It evolves with fulminant respiratory failure and later septic shock with the need for invasive mechanical ventilation.

Clinical Hypothesis: Assumed bacterial pneumonia.

Diagnostic Pathways: Due to the lack of response to antibiotic therapy and radiological worsening with interstitial infiltrate dispersed in ground glass, bronchoscopy was performed with identification of *Pneumocystis jirovecii* (by PCR) and *Stenotrophomonas maltophila*. Therapy with sulfamethoxazole/trimethoprim for 21 days was fulfilled with favorable evolution. In this case, adjuvant corticosteroid therapy was not used in the treatment of pneumocystosis, contrary to what is recommended for patients with the Human Immunodeficiency Virus (HIV).

Discussion and Learning Points: *Pneumocystis jirovecii* pneumoniae is an opportunistic infection seen in immunocompromised patients, notably those infected HIV. With immunosuppressive therapeutic era, a new population of immunocompromised patients emerged, and with it a rise in the incidence of pneumocystosis. The importance of this case is to raise awareness of the diagnosis and early treatment of pneumocystosis in immunocompromised patients who previously considered at low risk, for example, under low-dose corticosteroid therapy that's not associated with other immunosuppressive therapy or underlying autoimmune, hematological or neoplastic disease.

 DOI: 10.12890/2022_V9Sup1

539 / #EV0708

A CASE OF ATYPICAL ABSCESS OF NOCARDIA SPP IN IMMUNOCOMPROMISED PATIENT

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Case Description: Female, 59 years old, with a previous history of type 2 diabetes and IgG4 vasculitis (medium and large vessels) with affection of the aorta and myocardium, under immunosuppressive therapy with rituximab, corticosteroids and methotrexate. Has a recent hospitalization for cutaneous micro abscesses in the buttock and left breast, without isolation of agent that resolved after a course of ciprofloxacin (patient with allergy to penicillin and cephalosporin). Return to hospital due to fever, chest pain, feeling of dyspnea and fatigue. At admission, was hypotensive with laboratory analysis with increased inflammatory parameters.
Clinical Hypothesis: Assumed sepsis without identified focus or aortic pathology .
Diagnostic Pathways: To exclude aortic pathology, due to her priors, thoracic and abdominal CT angiography was performed, which identified liquid collection (7.8x4.7x4.5 cm) well-defined walls and internal septa centered on the psoas muscle and left posterior pararenal space, with diaphragmatic contact. Associated spondylodiscitis was excluded. Admitted to sepsis starting point abdominal abscess and started empirical antibiotic therapy with meropenem. Case discussed with interventional radiology and underwent CT-guided biopsy and percutaneous drainage of the abscess without complication. As a complication, she developed a skin rash secondary to carbapenem, which was discontinued. From bacteriological study of the drained content was identified *Nocardia cyriacigeorgica* starting directed therapy with sulfamethoxazole/trimethoprim intravenous with favorable evolution.
Discussion and Learning Points: In patients with vasculitis on systemic corticosteroid therapy or other immunosuppressive treatment, suspicion of uncommon infection should increase. Obtaining an accurate diagnosis and early treatment is essential, but challenging. Regular prophylactic therapy should be considered.

1631 / #EV0709

PNEUMOTHORAX AND PNEUMOMEDIASTINUM IN PATIENTS WITH SEVERE SARS-COV-2 PNEUMONIA

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Case Description: The aim of our study was to present our experience from COVID-19 patients with pneumothorax and pneumomediastinum that were hospitalized in the Infectious Diseases Unit of Internal Medicine Department in University General Hospital of Larissa. From March 2020 until today, 1150 patients with COVID-19 pneumonia were treated in our unit. Five patients (0.43%) of them (3 male) with age range 27-78 years, all with severe pneumonia, developed these complications: 2 patients had pneumothorax only, 2 patients had pneumomediastinum only and 1 had both conditions simultaneously. Complications appeared 10 to 30 days after COVID-19 diagnosis. In one patient the diagnosis was made in parallel with COVID-19 pneumonia, while in the rest 4 patients diagnosis was made in convalescence, because of acute deterioration of respiratory function and/or because of acute chest pain. Four patients received only supportive treatment while 1 patient was treated with chest tube thoracostomy. All patients fully recovered.
Clinical Hypothesis: Pneumothorax and pneumomediastinum are rare causes of acute chest pain or acute respiratory deterioration in COVID-19 patients.
Diagnostic Pathways: Chest computed tomography should be immediately ordered to diagnose these complications versus acute pulmonary thromboembolic disease or progression of COVID-19 pneumonia.
Discussion and Learning Points: Spontaneous pneumothorax and pneumomediastinum are rare complications of severe SARS-CoV-2 pneumonia. Attending physicians should highly suspect these conditions in any case of acute chest pain and/or acute respiratory failure, even in patients with no comorbidities that are not under invasive or noninvasive mechanic ventilation. In most of the cases treatment is only supportive with favorable outcome.

DOI: 10.12890/2022_V9Sup1

843 / #EV0710

THE IMPORTANCE OF CLINICAL SUSPICION - A CLINICAL CASE

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Case Description: 49 years-old female with history of rheumatoid arthritis and paroxysmal supraventricular tachycardia medicated with prednisolone, tofacitinib, gabapentin, bilastine, esomeprazole and propranolol. History of low back pain with months of evolution. Lumbar CT demonstrates structural alteration of the L5 body,with an area of bone destruction,presenting an exuberant soft tissue component involving this vertebral body. The patient is referred to the E.R. There a CT scan of the spine reports aspects suggestive of spondylodiscitis with a perisomatic phlegmonous-abscess collection.

Clinical Hypothesis: Spondylodiscitis.

Diagnostic Pathways: Interferon-Gamma Release Assay (IGRA) is negative;empirical antibiotic and multimodal analgesia was iniciated.MRI of the lumbar spine confirms spondylodiscitis with abscess. After repeating routine chest X-ray (patient had no respiratory symptoms) a small cavitated image is observed, which motivates a CT scan of the chest, strengthening the suspicion of tuberculosis (TB). In view of this finding, a bronchoscopy is performed and search for alcohol-acid resistant bacilli was positive. Quadruple anti-bacillary therapy was initiated with progressive clinically improvement.

Discussion and Learning Points: TB is one of the leading causes of morbidity and mortality worldwide. IGRAs are the preferred diagnostic however they have high false-negative rates (approximately 8–19% of patients have a negative IGRA result when presenting with active tuberculosis). Several risk factors were associated with negative IGRA results including immunodeficiency,advanced age,negative tuberculin skin test,extrapulmonary tuberculosis, disseminated tuberculosis,concomitant tuberculosis treatment and smoking. It should be noted that studies with a larger samples are needed. A negative IGRA result might inappropriately lower the clinical suspicion for TB and result in delayed treatment initiation hence the importance of recognizing the risk factors associated with false negatives and of carrying out more studies to stratify them.

935 / #EV0711

A PROPHYLAXIS WITH COMPLICATIONS - ABOUT A CLINICAL CASE

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Case Description: 68-year-old male with history of high-grade urothelial carcinoma of the bladder under BCG therapy (previously submitted to cystoprostatectomy radical with cutaneous ureteroileostomy, bilateral ilioobturator lymphadenectomy and prophylactic appendectomy). Hospitalization for pathological fracture of D8-D9 with associated kyphosis,submitted to thoracic laminectomy, thoracolumbar arthrodesis and with suspected spondylodiscitis.

Clinical Hypothesis: Bone tuberculosis.

Diagnostic Pathways: Dorsal vertebrae anatomy-pathology reveals necrotizing granulomatosis. Research for *Mycobacteria* and fungi is negative,suggesting investigation of tuberculous etiology.Interferon-Gamma Release Assay (IGRA) was negative (<0.01UI/mL). Anti-bacillary therapy was started with tolerance and improvement,observing progressive balance gain - discharge from physiatry consultation after 3 months hospital discharge .

Discussion and Learning Points: As a treatment for superficial transitional cell carcinoma, Bacillus Calmette-Guerin (BCG) intravesical instillation can rarely cause unpredictable systemic side effects. BCG treatment is usually limited to local side effects and/or mild systemic side effects.Serious adverse events caused by intravesical BCG are rare and systemic complications can be due to risk factors like bladder biopsy or difficult and traumatic catheterizations of the bladder;sepsis, pulmonary, hepatic, musculoskeletal and vascular complication have been reported. Most reported cases of musculoskeletal involvement involve the spine, presumably due to spread from the urinary tract via the Batson plexus. Bony involvement outside the spine has also been described. Systemic BCG infection should be suspected in patients treated with intravesical BCG who present with systemic manifestations, particularly within ≤3 months of BCG instillation. Definitive diagnosis of BCG infection may be established via positive *M. bovis* BCG culture (of bodily fluids or tissue from involved sites); however, the sensitivity is limited.

DOI: 10.12890/2022_V9Sup1

2731 / #EV0712

SUDDEN PNEUMONIA E ARDS IN IMMUNOSUPPRESSED PATIENT

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Case Description: A 48-year-old male with a known HIV infection in the AIDS stage, unmedicated and with chronic alcohol consumption, was hospitalized with generalized edema and ascites. On admission he had hyperbilirubinemia and cytocholestasis. Abdominal ultrasound: "portal vein thrombosis. Signs of chronic liver disease with hepatomegaly and splenomegaly. Voluminous free ascites". Thus, diagnostic and therapeutic paracentesis was performed with ascitic fluid collection. Treatment with diuretics was carried out, with a progressive improvement. However, on the 7th day of hospitalization, the patient developed severe acute respiratory failure, requiring oxygen therapy at 15 L/min; no fever, cough or respiratory secretions. Bloods analyses showed an increase in inflammatory parameters. A chest X-ray was performed, which revealed bilateral pulmonary infiltrates, suggestive of ARDS, and a pulmonary CT scan with several areas of ground-glass densification, associated with interlobular septa thickening and bronchial ectasia, affecting all lung segments, although more significantly in the upper lobes. and upper segments of the lower lobes, in relation to an extensive inflammatory/infectious process. No cavitations or pneumothorax were observed. Given the worsening of the clinical picture, the patient was transferred to the Intensive Care Unit to start therapy with high flow oxygen and empirically started antibiotic and antifungal therapy. Despite the measures taken, the patient died within 24 hours, and all the microbiological tests performed were negative.

Clinical Hypothesis: Untreated HIV infection and associated immunosuppression significantly increase the risk of acquiring opportunistic infections.

Diagnostic Pathways: Case report.

Discussion and Learning Points: This aims to demonstrate the sudden and catastrophic evolution of an infection, without agent identified, in severely immunosuppressed patients.

1084 / #EV0713

THE VALUE OF 18F-FDG PET/CT IN THE DIAGNOSIS OF PROSTHETIC VALVE ENDOCARDITIS

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Case Description: We present the case of an 82-year-old woman with arterial hypertension, dyslipidemia, hypothyroidism, and aortic stenosis submitted to aortic valve replacement five years before admission. She presented with fever for one month, dizziness and unsteady gait. Physical examination revealed an aortic systolic murmur with carotid radiation, homonymous hemianopsia, right appendicular dysmetria, and dysdiadochokinesia. Blood results showed neutrophilic leukocytosis and increased erythrocyte sedimentation rate (ESR). Cranial computed tomography (CT) showed multiple recent infarcts in the right caudate and left internal capsule.

Clinical Hypothesis: An acute ischemic cardioembolic stroke was considered due to bilateral multiple brain infarcts. Fever and ESR elevation arouse the hypothesis of an infective endocarditis (IE).

Diagnostic Pathways: Brain magnetic resonance confirmed recent ischemic infarction of left thalamus and occipital cortex, right caudate, and several small cerebellar ischemic lesions. Blood cultures isolated *Enterococcus faecalis*. Abdominal CT scan exposed a heterogeneous spleen parenchyma suggesting embolic lesions. After unaltered transthoracic and transesophageal echocardiography, patient underwent positron emission tomography with 18F-fluorodeoxyglucose (18F-FDG PET) / CT. A hypermetabolic focus in the biological prosthesis established the diagnosis of IE. Patient underwent a six-week course of ceftriaxone and ampicillin with resolution of infection and partial recovery of neurological deficits.

Discussion and Learning Points: Prosthetic valve endocarditis is a major diagnostic challenge, due to the lower sensitivity of the modified Duke criteria and a higher percentage of cases with inconclusive echocardiography results. 18F-FDG PET/CT is a significant advance in cases of high clinical suspicion and negative or inconclusive echocardiography, increasing the overall sensitivity of the modified Duke criteria.

323 / #EV0714

DISSEMINATED TUBERCULOSIS IN AN IMMUNOCOMPETENT MAN

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Case Description: A 33-year-old bangladeshi male, no relevant medical history, goes to the Emergency Department (ED) with a painful dorsal growth. Physical exam was normal except for a 3 cm dorsal growth that was drained, sent for cultures and the patient discharged. He returned 4 weeks later maintaining the dorsal growth and an ulcered perineal phlegmon that had developed over a 2-week period. The cultures acquired during the first ED visit were positive for *Mycobacterium tuberculosis* (MT) and he was admitted.

Clinical Hypothesis: Due to the likelihood that both infectious

 DOI: 10.12890/2022_V9Sup1

sites were related and caused by MT, we hypothesized that the most probable diagnosis was disseminated tuberculosis.
Diagnostic Pathways: Blood analysis revealed elevated leucocytes (11.14x109/L, 69.2% neutrophiles) and C-reactive-protein (93.4 mg/L), negative hepatitis, HIV and syphilis serologies. Blood-cultures were also negative. Chest-abdomen-pelvic computerized tomography (CT)-scan showed a dorsal subcutaneous collection, no pulmonary involvement and an inter-gluteal abscess with a fistulous tract leading to the scrotum with extension to the ischioanal-fossa where a lytic lesion was delimitated suggesting osteomyelitis. Pelvic magnetic resonance imaging showed fistulizing perineal disease with 2 abscesses involving the sacrum and ischium. A lumbar-CT-scan revealed L4 involvement. The fluid sample collected from the perineal phlegmon was also positive for MT resistant to pyrazinamide, confirming disseminated tuberculosis with cutaneous involvement, dorsal and perineal abscesses and sacrum, ischium and L4 osteomyelitis. With targeted antibiotic therapy (isoniazid, rifampicin and ethambutol) the patient evolved favorably.
Discussion and Learning Points: This case highlights a health problem with significant morbidity and mortality. Diagnosis is difficult owing to nonspecific clinical findings and better awareness might improve a clinician's index of suspicion.

487 / #EV0715

NOT ALL BILATERAL INTERSTITIAL INFILTRATES ARE COVID

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Case Description: A 46-year-old man arrived at our emergency service referring 5 days of progressive onset of fever, non-productive cough, asthenia, pleuritic chest pain and dyspnoea on minimal effort. Refers no known contact with COVID-19 nor people with similar symptoms, or other singular exposures. No other medical antecedent or usual medication referred.
Clinical Hypothesis: Hemodynamically stable at his arrival, chest X-Ray revealed bilateral interstitial infiltrates and initial blood analysis showed elevation of acute phase reactants, lymphopenia and normocapnic respiratory insufficiency. Initial clinical hypothesis included SARS-CoV-2 pneumonia, atypical pneumonia and opportunistic infection on an immunosuppression context.
Diagnostic Pathways: Protein-chain-reaction of SARS-CoV-2 (tested thrice), *Pneumococcus* and *Legionella antigenuria* resulted negative. Empiric azithromycin was started, with good clinical evolution, allowing to stop oxygen therapy. Atypical pneumonia serology and quantiferon were negative, but HIV serology resulted positive with 319 CD4 and 0.18 CD4/CD8 quotient. Given this fact, although having >200 CD4, a BAL was performed, revealing *Pneumocystis Jirovecii* in cultures. Cotrimoxazole and corticosteroids treatment allowed complete clinical and radiological resolution, and antiretroviral therapy was started afterwards on external consultations.
Discussion and Learning Points:Even in pandemic context and without known risk factors of HIV infection, we must not forget to include HIV on differential diagnosis of bilateral interstitial Pneumonia. Its remarkable the fact of having opportunistic infections, as our patient, although having >200 CD4, but we must consider the fact of a low CD4/CD8 quotient, which must reflect a high grade of immunodeficiency on patients with >200 total amount of CD4.

1790 / #EV0716

CEFTRIAXONE VERSUS AMPICILLIN FOR THE TREATMENT OF COMMUNITY-ACQUIRED PNEUMONIA. A PROPENSITY MATCHED COHORT STUDY

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Background and Aims: Ceftriaxone is recommended as first-line antibiotic treatment for hospitalized adults with community acquired pneumonia (CAP). However, its use has led to the emergence of resistant species and clostridium difficile infection (CDI). Narrower-spectrum beta-lactam as ampicillin, may be associated with comparable clinical outcomes with less CDI. We aimed to examine whether ampicillin is non-inferior to ceftriaxone (with the addition of macrolides for both arms) for the treatment of CAP.
Methods: This was a single center, observational retrospective cohort study. We included adult patients who were hospitalized due to CAP and were treated with either ceftriaxone or ampicillin with the addition of macrolide. A propensity-score model for therapy with either ceftriaxone or ampicillin was used to match patients (ratio of 1:2). The primary outcome was 30-day all-cause mortality. A multivariate analysis and Kaplan-Meier survival analysis was performed.
Results: In the propensity matched cohort, 197 patients were treated with ampicillin and 394 with ceftriaxone. There was no significant difference in 30-day all-cause mortality between treatment groups in multivariable analysis (OR 0.67, [0.37-1.2], p=0.189) and survival analysis (p=0.531). No survival difference between treatment arms was observed after stratifying the population according to age and CURB-65 score both in survival and multivariable analysis (p= 0.406 and 0.407 respectively). Patients treated with ampicillin experienced lower rates of CDI (0% vs 2%, p=0.044).
Conclusions: Ampicillin was not associated with worse clinical outcomes in comparison to ceftriaxone for patients who were hospitalized due to CAP. Ceftriaxone was associated with significantly higher rate of CDI.

 DOI: 10.12890/2022_V9Sup1

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DESCRIPTIVE STUDY OF BACTERIEMIAS IN ONCOLOGICAL PATIENTS IN A SECOND LEVEL HOSPITAL IN MADRID

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Background and Aims: To analyze the clinical, epidemiological and microbiological characteristics of bacteremia in a Madrid hospital.
Methods: Retrospective, observational and descriptive study of all cases of bacteremia in patients with active neoplasia, diagnosed by blood cultures, from January 2010 to February 2020, at the Prince of Asturias University Hospital in Alcalá de Henares, Madrid.
Results: 200 bacteremia were identified in 150 patients once contaminations had been excluded. 66% were men (n = 99) with a median age of 63 years (35-89). The most frequent neoplastic involvement was that of pancreatic origin in 27.3% followed by pulmonary origin (14.4%), with a mean time from diagnosis to bacteremia of 9 months. Most of the cultures were of monomicrobial origin (85.4%), with a predominance of Gram negative ones (60.4%). The main responsible microorganism was *E. coli* (29.2%) followed by *S. aureus* (23.9%) and *K. pneumoniae* (10.2%). 9% of the episodes were caused by a multi-resistant microorganism, recovering *S. aureus* resistant to methicillin (3.7%), *K. pneumoniae* producing ESBL (2.7%) and E. coli producing extended spectrum B-lactamase (ESBL) (1.9%). The primary focus of bacteremia was urinary in 60 cases (40%), 30 of biliary origin (20%) and 20 of abdominal origin (13%). The most widely used antimicrobial treatments were carbapenems (18.4%), piperacillin/tazobactam (13.8%) and cephalosporins (12.5%). Related mortality at 30 days was 37.7%.
Conclusions: Our cohort presents different characteristics in terms of microbiological isolates than those described in the literature in terms of bacteremia, since we observed the low number of bacteremia due to *Pseudomonas aeruginosa* (4.2%).

2520 / #EV0718

"LOOK WELL TO TRULY SEE!"

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Case Description: Man, 79 years, medical history included arterial hypertension, gout, benign prostatic hyperplasia. Right lumbar pain with anterior irradiation in the last month has motivated several admissions in urgency department. He has been evaluated, repeatedly, with abdomino-pelvic computerized tomography (AP-CT): no relevant abnormalities detected. Progressive escalation in symptomatic therapy: partial pain relieve only. Other complaints included weight loss and alimentary vomiting in the last two weeks. He denied fever, respiratory symptoms, gastrointestinal or genitourinary alterations or visible blood loses. No sphincter incontinence or lower limbs sensorimotor alterations registered.
Clinical Hypothesis: Due to pain worsening, another AP-CT was performed, along with lumbar nuclear magnetic resonance. It was possible to delimitate a suspected mesenteric adenopathy conglomerate, next to the renal arteries emergence, with aggressive behavior features. He was admitted as an inpatient with the suspicion of a lymphoproliferative disorder. Despite therapy escalation, lumbar pain was severe and hard to control. B symptoms or other of interest had not been registered. Cancer screenings were updated with no suspected lesions.
Diagnostic Pathways: Posterior image review raised doubts about initial diagnostic. Rediscussion with Radiology confirmed a new diagnosis: abdominal aortic dissection with mycotic aneurysm and periaortic abscess associated. Blood cultures persistently negative. Vascular Surgery excluded the surgical option. Prolonged antibiotherapy was initiate: intravenous first, followed by oral form after discharge. Pain control increased: fixed-time analgesia not needed anymore. Serialized AP-CT showed small but progressive lesion reduction.
Discussion and Learning Points: Outpatient follow-up was maintained. Despite the poor prognosis, six months after discharge: stabilized lesion and asymptomatic patient, who return to his daily life.

742 / #EV0719

NOCARDIA FARCINICA BRAIN ABSCESS IN AN IMMUNOCOMPETENT PATIENT WITH ISOLATED HEMIANOPSIA

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Case Description: A 63-year-old smoking and diabetic Caucasian male presented at the Emergency room in the University hospital of Brussels (Belgium) and was hospitalised with sudden altered mental state and a loss of the right eye's temporal visual field. His symptoms started the day before and began with episodes of confusion followed by headache. He was morbidly obese and had a history of pulmonary disease and cardiovascular disease.
Clinical Hypothesis: Initially, a stroke was suspected as the most likely diagnosis. Afterwards a brain tumour or metastatic disease was suspected. MRI revealed a cerebral abscess.
Diagnostic Pathways: In the emergency department, a CT of the brain was first carried out to rule out a stroke. As the CT revealed a mass, and a brain tumour was suspected PET-CT was earlier available than a MRI to rule out a hypermetabolic mass. When MRI revealed a cerebral abscess, stereotactic needle aspiration was performed for a tissue sample for further pathologic and microbiologic testing.
Discussion and Learning Points: *Nocardia farcinica* brain abscess is a rare entity which usually presents in patients with immune compromised state. The mortality rate is 20% and 50% in immune competent and immune compromised patients, respectively.

DOI: 10.12890/2022_V9Sup1

Whenever a nocardiosis is suspected, the microbiology lab should be notified to prolong the incubation period up to two weeks and to use selected culture media. The cornerstone of the therapeutic management in a *Nocardia farcinica* brain abcess is surgical drainage by aspiration or through craniectomy. Additionally, a long antibiotic course should be set up, using TMP/SMX as main drug.

612 / #EV0720

PULMONARY OPPORTUNISTIC INFECTION MIMICKING NEOPLASIA.

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Case Description: An 88-year-old female, without toxic habits, diagnosed with hypertension, presented a 5 months history of asthenia, weight loss, dyspnea and dry coughing. Upon physical examination, she had multiple mobile and painful lymphadenopathies in the neck and axillary region. At pulmonary auscultation dry crackles on both apices.

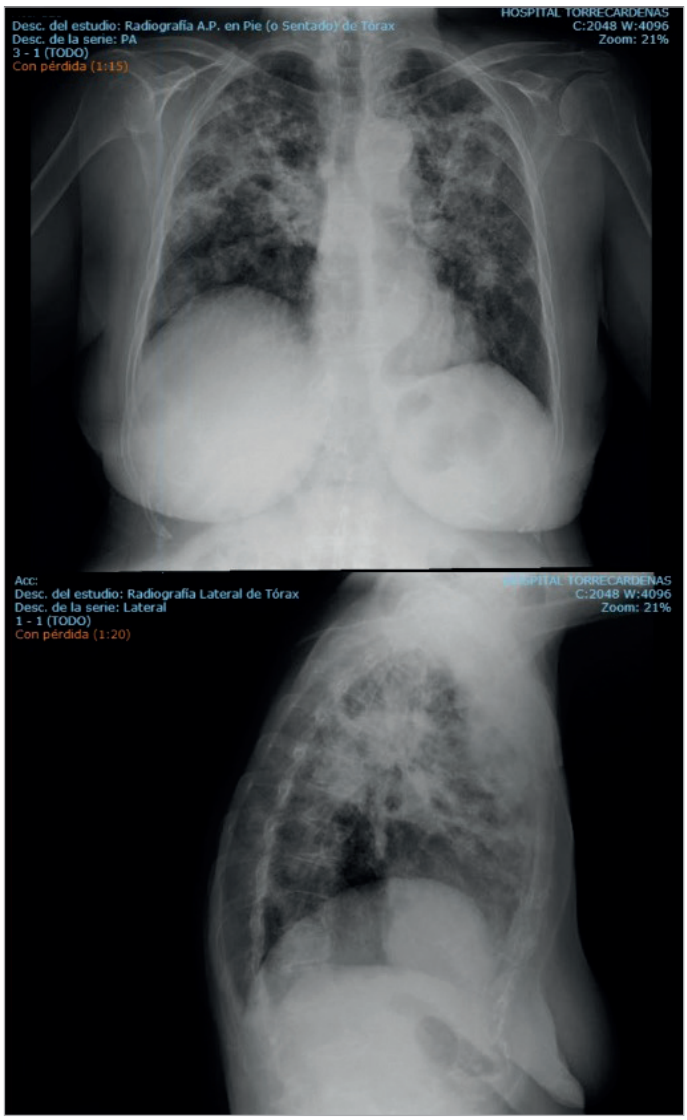
Clinical Hypothesis:

She was admitted in respiratory isolation, for suspected tuberculosis. Another hypothesis were lung neoplasia or pneumonia from atypical germs.

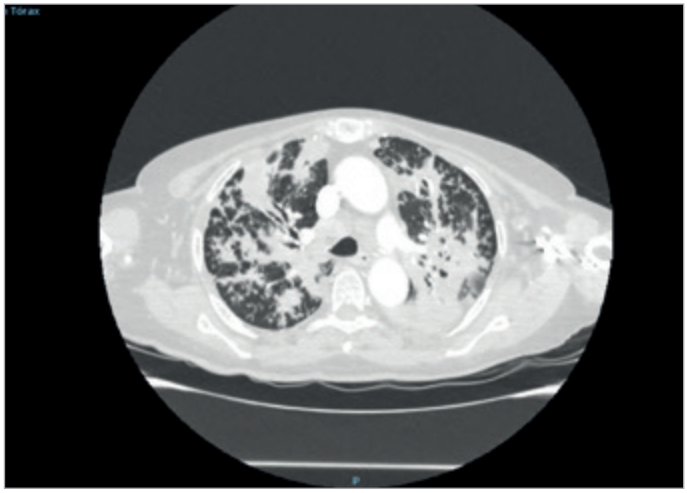
Diagnostic Pathways: Laboratory studies showed increased of acute phase reactants, normochromic normocytic anemia and a mild lymphopenia. PCR test for SARS-CoV-2 and HIV serology were negative. All three ARB were negative. In the sputum culture grew normal flora. Galactomannan antigen test in serum was negative (Figure).

The CT scan of the neck-chest-abdomen reported bilateral diffuse pulmonary infiltrates but no clear neoplastic lesions (Figure). Bronchoscopy described a possible tumor infiltration of the left upper lobe and carina. The biopsy reported necrotizing granulomatous inflammation and rule out malignancy. The bronchial aspirate showed numerous septate fungal hyphae compatible with Aspergillus. Isavuconazole therapy was started. Two weeks later, the mycobacterial cultures were positive for *Mycobacterium tuberculosis*. The concomitant administration of isavuconazole and rifampicin is contraindicated; so tuberculostatic drug treatment was adapted (2HZE-Lefx/10HZE).

Discussion and Learning Points: Pulmonary aspergillosis can present as an infectious pseudotumour mimicking lung cancer and may be indistinguishable from those of pulmonary tuberculosis. Moreover, these diseases can coincide in the same patient. To an appropriate diagnosis both specific serological and microbiological test are compulsory. As a consequence of the significant drug-drug interactions between anti-TB agents and triazole drugs, the treatment of coinfection is complicated.



#EV0720 Figure 1.



#EV0720 Figure 2.

DOI: 10.12890/2022_V9Sup1

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CLINICAL FEATURES OF ADMITTED PATIENTS WITH WEST NILE ENCEPHALITIS IN SOUTHEASTERN SPAIN

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Background and Aims: Review the clinical features and presentation of patients diagnosed with West Nile Virus (WNV) Encephalitis in Puerto Real University Hospital, Cádiz, from August 1 to October 31, 2020.

Methods: An observational, retrospective, non-interventional study was carried out based on the data obtained from the digital medical record of Puerto Real University Hospital, in southwestern Spain. We analyzed a database made up of patients with a confirmed diagnosis of WNV by means of an ELISA serology test.

Results: 11 patients were admitted to our hospital from August 1 to October 31, 2020. 5 women (45.5%) and 6 men (54.5%), of which 3 died (27.2%). The mean age was 69.6 years (±11.87). 9 (90.9%) patients were independent for daily life activities, with an average Charlson Index score of 4.54 (±2.38) and an estimated 10-year survival of 34.25%. Patients developed symptoms during 3.81 (±3.65) days before consulting, which were: fever (11), disorientation (1), vomiting (2), headache (2), unsteadiness (1), vertiginous sensation (2). Preexisting conditions: arterial hypertension (6), diabetes mellitus 2 (6, 3 insulin dependent), dyslipidemia (6), chronic kidney disease (1), cerebrovascular disease (1), amyloid encephalopathy (1) and chronic lymphatic leukemia (1). 8 presented neurological symptoms during evolution: instability (2), vertigo (2), paresis (2), diplopia (1), dysarthria (1) and dysmetria(1). 8 presented digestive symptoms: nausea (4), vomiting (5) and abdominal pain (2). Mean time of hospitalization was 9.81 days(±3.31).

Conclusions: The prototype of an admitted WNV patient is an immunosuppressed patient and/or with associated frailty. This disease is becoming an emerging condition that wasn´t previously considered in our area, but with great importance today. A high level of suspicion is required and pest detection and control measures are necessary in southern Spain.

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GIANT HYDATID CYST

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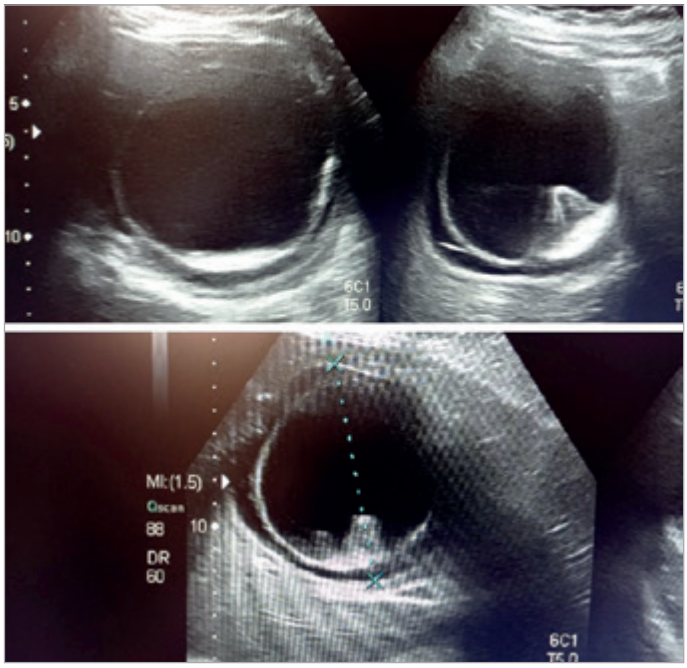
Case Description: A 41-year-old woman from Pakistan, resident in Spain since 2006, presented to the Emergency Department with fever, general malaise, weight loss and abdominal discomfort. In examination the patient was afebrile, with normal blood pressure, she was pale and cardiopulmonary auscultation was normal. Abdominal examination revealed a painful hard hepatomegaly, but no splenomegaly. The rest of the examination was normal.

Clinical Hypothesis: A full panel blood test and a X-ray and an abdominal ultrasound were requested so that some of the main pathologies such as infections and tumours could be ruled out.

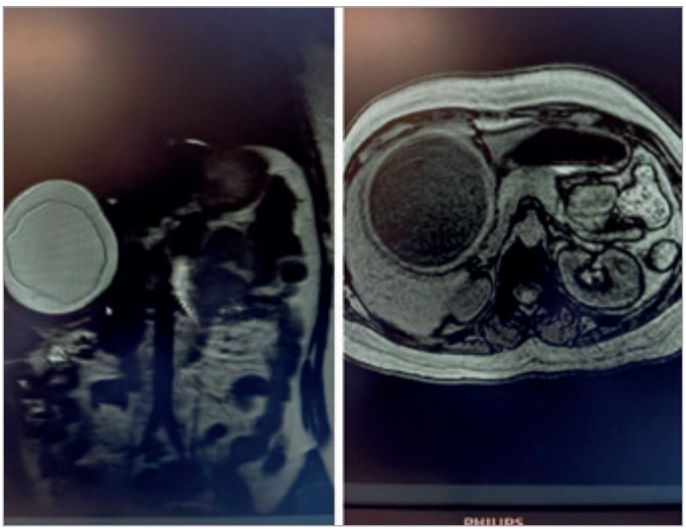
Diagnostic Pathways: The haemogram showed 2500 eosinophils/microL and haemoglobin 10.5g/dL; the biochemistry showed GGT 115 U/L and FA 152 U/L, the rest was normal. A chest X-ray was requested showing no abnormalities, and an abdominal ultrasound showed an approximately 10 cm cyst with a double capsule and internal contents adhering to its internal wall, pseudonodular, suggestive of a hydatid cyst. Treatment was started with albendazole 400mg twice a day, stool cultures were requested with parasite tests, serology for fasciola, entamoeba and echinococcus, cholangioRMN and the patient was sent to general surgery (Figure).

Discussion and Learning Points: Although the diagnosis of hydatid cyst is based on histological examination, imaging tests can be highly suggestive, patients are usually asymptomatic except for those who present with local compression symptoms due to the location of the cyst. Albendazole must be administered at least one week prior to surgery and continued for at least four weeks postoperatively.



#EV0722 Figure 1.

DOI: 10.12890/2022_V9Sup1



#EV0722 Figure 2.

2500 / #EV0723

SEARCHING FOR THE CULPRIT: A CASE OF PROLONGED FEVER ASSOCIATED WITH STREPTOCOCCUS PASTEURIANUS SPP PASTEURIANUS BACTEREMIA AND PREMALIGNANT COLONIC LESIONS

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Case Description: The presentation of this case is intended to focus on two different topics, on one hand on how to deal with patients presenting with fever of unknown origin and on the other hand on the association of *Streptococcus gallolyticus spp pasteurianus* bacteremia with the detection of colonic lesions (premalignant in this case). An 86-year-old man was admitted to our clinic due to a 20-day history of fever. No other symptoms were mentioned, except for a syncopal episode during micturition the previous night. Clinical examination showed no significant signs and blood tests revealed slightly elevated WBC count (11 390/μL) and high inflammatory markers (CRP 3,1 mg/dl, normal range 0-0,5 mg/dl). At the Emergency Department the urine test was normal and brain CT and lung CT angiography presented no significant abnormalities. Further workup included blood and urine cultures, abdominal ultrasound, CT abdomen and transthoracic echocardiogram. Although being afebrile for three days, the patient had 38°C fever on the fourth day of hospitalization and piperacillin/tazobactam was initiated. On day 5 and 6 two consecutive blood cultures revealed *Streptococcus pasteurianus* spp pasteurianus bacteremia (sensitive strain) and treatment was changed to ampicillin/sulbactam. Because of the specific isolated microorganism the patient also underwent a colonoscopy and a transesophageal echocardiogram (negative for vegetations). The colonoscopy showed 8 polyps, 4 of which were removed and 3 were sent for biopsy analysis (low grade tubular adenomas).

535 / #EV0724

NECK ABSCESS AND MRSA BACTEREMIA SECONDARY TO POCKET SHOT INTRAVENOUS DRUG ABUSE (IVDA)

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Case Description: A Caucasian 45-years-old male presented to the emergency department complaining of pain and swelling on the left side of his neck. From his medical history he was an IVDA. Medical examination revealed a red, swollen area with positive fluctuation on the left supraclavicular region, about 5x5 cm.
Clinical Hypothesis:
The most profound diagnosis was an abscess. A further workup should be done in order to exclude other diagnoses and possible complications.
Diagnostic Pathways: An aspiration was performed that conform the clinical diagnosis. The CT scan showed enlarged pectoralis major with presence of air. Air was also found on the supraclavicular, infraclavicular and retrosternal regions. His initial blood examinations showed elevated WBC 33.18 K/μl, Hb 7 gr/dl, PLT 859 K/μl. At the beginning he was treated empirically with meropenem 1 gr every 8 hours and vancomycin 1 gr twice daily. Both his blood and abscess fluid aspiration cultures were positive for methicillin-resistant *Staphylococcus aureus* (MRSA). A transthoracic echocardiography ruled out endocarditis. More blood cultures were obtained at day two and four, after the initiation of antibiotics, which were negative. The patient was treated for four weeks.
Discussion and Learning Points: IVDAs after using the most frequent injection sites find alternative and more dangerous regions, like the major veins of the neck jugular, subclavian or brachiocephalic. This method is referred to as 'pocket shot' by IVDAs. Except the apparent abscess, clinicians should oversee for other complications, including: underlying pus collections, pneumonothorax, mediastinitis, osteomyelitis, and haemothorax.

1953 / #EV0725

ATYPICAL PNEUMONIA IN "ATYPICAL TIMES": COVID-19 AND MYCOPLASMA PNEUMONIAE, A POTENTIAL RELATIONSHIP

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Case Description: We present a case of a 67-year-old man, ex-smoker, with history of chronic obstructive pulmonary disease. The patient was admitted due to progressive dyspnea, desaturation and fever ans three weeks ago, he had passed SARS-CoV-2 infection

 DOI: 10.12890/2022_V9Sup1

with mild symptoms. Physical examination revealed crackles in the right base and the analysis showed white blood cells 8,000/uL, fibrinogen 819 mg/dL, D-dimer 390 ng/mL, C-reactive protein (CRP) 14.2 mg/dL and procalcitonin 0.11 g/L. Chest X-ray revealed right basal pneumonia. Empirical treatment with ceftriaxone 2g per day was started, but not clinical improvement was observed. After complementary tests treatment was adjusted with azithromycin 500mg per day during 5 days, showing complete recovery.

Clinical Hypothesis: Due to the lack of response to typical microorganisms targeted antibiotics and the sticking clinical-radiological dissociation, other pathogen were considered for atypical pneumonia.

Diagnostic Pathways: Seroconversion for SARS-CoV-2 was demonstrated by positive IgG antibodies. Blood cultures and urine pneumococcal and legionella antigens were negative. Positive IgM with titres ≥1/160 with negative IgG antibodies were detected against Mycoplasma pneumoniae.

Discussion and Learning Points: *M. pneumoniae* is a pathogen that causes community-acquired (atypical) pneumonia, affecting groups of all ages. Diagnosis requires either serological tests detecting IgM antibodies titer ≥1:160, seroconversion with IgG antibodies or 4-fold increase in IgG antibodies titers, or PCR test which present better sensitivity and specificity. MP is inherently resistant to beta-lactams since it lacks a bacterial wall. The treatment of choice are macrolides, tetracyclines or fluoroquinolones. Recently, Zha et al. has reported a *M. pneumoniae* co-infection rate of 2.5% in COVID-19 patients.

2055 / #EV0726

PNEUMOCYSTIS JIROVECCI AND METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS SUPERINFECTION, A CHALLENGE IN POST COVID-19 SCENARIO

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Case Description: We present a case of an 87-year-old female who recovery after SARS-CoV-2 infection and was re-admitted two weeks later due to worsening dyspnea and malaise. Laboratory tests showed 7,500/µL leukocytes, 1,300/µL lymphocytes, D-dimer 344 ng/mL, C-reactive protein (CRP) 15.7 mg/dL and procalcitonin 0.06 µg/L. Chest X-ray showed a significant radiological worsening with extensive areas of bronchopneumonia and ground glass opacities suggestive of organizing pneumonia. Meropenem 1 g/8h was started, nevertheless, clinical worsening persisted with tachypnea and desaturation, and heated high-flow nasal canula oxygen therapy was started. Antibiotic therapy was adjusted with linezolid 600 mg/12h and trimethoprim-sulfamethoxazole 1600/320 mg/6h, plus methylprednisolone 40mg/day. Unfortunately, our patient had no response to optimized treatment, and finally died.

Clinical Hypothesis: The absence of improvement despite treatment, and immunosuppression secondary to corticosteroids in the COVID-19 scenario, constituted a risk factor for opportunistic pathogens. Furthermore, recent admission should be paid attention for considering nosocomial pathogens.

Diagnostic Pathways: PCR test for SARS-CoV-2 persisted negative, blood cultures were sterile, and pneumococcal and legionella urine antigens were negative. MRSA was isolated both in nare screening and sputum and *P. jirovecii* was shown by PCR in induced sputum, with normal values of serum (1-3)-beta-D-glucan.

Discussion and Learning Points: MRSA and *P. jirovecii* are pathogens with high morbidity and mortality, standing out the importance ofantimicrobial resistance issue. Data related to COVID-19 complications both non-infectious and infectious are required to clarify the potential risk superinfection by opportunistic and resistant microorganisms, even more due to the wide use of corticosteroids; especially in patients with associated risk factors.

860 / #EV0727

RED EYE: A CLINICAL LEAP INTO CMV RETINITIS

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Case Description: A 65-year-old woman was admitted in the emergency room with altered mental status due severe hypoglycemia. After correction, she began to complain about blurred vision and pain in her right eye. After consulting her medical history, she was taking methylprednisolone over the last two weeks for a suspected intermediate uveitis, without significant improvement. Additionally, the patient had an history of recurrent lower tract urinary infections, prior to the use of corticosteroids. At the physical examination, her right eye exhibited conjunctival hyperemia and the ophthalmoscopy revealed vitritis, pale retinal lesions with arterial-venous periphlebitis and superficial hemorrhage. Her left eye had signs of non-prolific diabetic retinopathy. She was scheduled for a revision Internal Medicine consult. Considering these findings, the hypothesis of retinitis by Cytomegalovirus (CMV) was raised and confirmed with a paracentesis of the aqueous humorous. Additionally, the immunodeficiency study was conducted with the diagnosis de novo of HIV type 1.

Clinical Hypothesis: CMV retinitis; uveitis.

Diagnostic Pathways: Clinical history; physical examination; blood workup; ophthalmoscopy; aqueous humorous paracentesis.

Discussion and Learning Points: CMV is a DNA herpes virus that specially affects immunocompromised patients. CMV retinitis is a severe complication in AIDs patients, usually appearing in advanced stages. The diagnosis is generally only suspected after the patient complains of vision changes, leading in many cases to blindness. In the last decades, the incidence of CMV retinitis has been reduced with the introduction of the antiretroviral therapies.

 DOI: 10.12890/2022_V9Sup1

However, the treatment continues to present itself as a clinical challenge since it evolves long periods of drug administration with many resistances being documented.

168 / #EV0728

MENINGITIS, A RARE COMPLICATION OF INFECTIVE ENDOCARDITIS

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Case Description: A 46-year-old female hospitalized for a 5-day-onset fever associated with nausea and vomiting. On physical examination, she presented with a grade III/VI systolic murmur in the mitral area. Laboratory test showed neutrophilic leukocytosis and CRP 16.94 mg/dL.

Clinical Hypothesis: Due to suspected endocarditis, transthoracic and transesophageal echocardiography was performed which revealed mobile vegetation adjacent to mitral valve. Because of isolation of Streptococcus agalactiae in blood cultures (HC's), antibiotic therapy with ceftriaxone and gentamicin was started.

Diagnostic Pathways: During hospitalization, she developed left central facial paresis and dysarthria. Cranioencephalic computed tomography was performed, which identified hypodense cortico-subcortical right fronto-insular lesion. For better characterization, was performed a cranioencephalic magnetic resonance, which showed several areas with restriction to parenchymal diffusion, the most extensive cortical and right frontoopercular and insular cortical on the right compatible with meningoencephalitis process. Lumbar puncture revealed cerebrospinal fluid with bacterial characteristics, but negative microbiology. From a clinical point of view, she evolved with apyrexia maintained since the 5th day of hospitalization and complete recovery of the neurological symptoms. Completed 21 days of antibiotic therapy, with negative control HC 's and echocardiogram which showed reduced vegetation dimensions. Subsequently, the patient underwent mitral repair with resection of the posterior leaflet.

Discussion and Learning Points: Infective endocarditis to *Streptococcus agalactiae* is a rare entity characterized by acute onset, large vegetation and rapid valve destruction. Neurological complications are the main factor for increasing morbimortality, and although affects 30% of patients, the presence of meningitis is a rare finding. About 50% of the cases require valve surgery, in addition to antibiotic therapy.

966 / #EV0729

POST-ACUTE COVID-19 SYMPTOMS IN YOUNG AND MIDDLE-AGED PEOPLE

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Background and Aims: To analyze the persistence of symptoms for 8 and 12 weeks after the onset of COVID-19.

Methods: This is a prospective study of 45 patients (21M, 24F) aged 24-59 (42±9) years who had COVID-19, attended in the outpatient stage. Control group included 24 people (6M, 18F) aged 19-59 (36±11) years without COVID-19. Assessment of anamnesis, clinical examination were performed.

Results: Complaints for symptoms persistence were revealed in 91% patients on the 65±16 day of the onset of COVID-19: 71% patients had fatigue, 36% - headache, 18% - dizziness episodes, 27% - dyspnea, 18% - dysgeusia, 13% - cough, 9% - myalgia. Systolic blood pressure (BP) was 127±13 mmHg, diastolic BP - 80±8 mmHg in main group; SBP was 121±12 mmHg and DBP - 78±5 mmHg in control group. SapO2 in the main group was 96.7±0.9%, in the control group - 98.0±0.5%. Complaints for symptoms persistence were discovered in 78% patients on the 94±7 day of illness: fatigue - in 58%, headache - in 27%, dizziness - in 7%, dyspnea - in 18%, dysgeusia - in 4%, cough - in 7%. There was an increase in SapO2 up to 97.4±0.8% (p=0.001) in main group.

Conclusions: The study confirmed a high incidence of persistent symptoms in patients with COVID-19 on 8 (91%) and 12 weeks (78%) after disease onset. These symptoms were mostly mild general (fatigue, headache). The data confirms a long recovery duration in young and middle-aged people, which requires a differentiated approach to the rehabilitation and further study of the post-COVID period.

698 / #EV0730

IT'S NOT ALL COVID-19 IN THE HEART OF THE PANDEMIC

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Background and Aims: *Pneumocystis jirovecii* pneumonia is a life-threatening infection that occurs in immunocompromised individuals, especially in HIV patients with low CD4 counts. We present three cases of *P. jirovecii* pneumonia in unknown HIV patients within the first wave of the pandemic of COVID-19. All three patients were admitted with suspected SARS-CoV-2 infection.

Methods: Descriptive study on a case series of 3 patients diagnosed with *P. jirovecii* pneumonia during the months of March and April 2020. Medical records were the source of information. The diagnosis was made by PCR in bronchoalveolar lavage.

 DOI: 10.12890/2022_V9Sup1

Results: At diagnosis the mean age was 39 years (minimum of 32 and maximum of 53). All were male and with no previous medical history. The three cases present respiratory failure due to bilateral interstitial pneumonia, lymphopenia, hyperferritinemia and elevated LDH. In all cases SARS-CoV-2 PCR was performed in nasopharyngeal exudate up to two times, being always negative, so fibrobronchoscopy was performed for invasive sampling. In all three cases, SARS-CoV-2 PCR in bronchoalveolar lavage was negative, however, a positive result was obtained for P. jirovecii PCR. In all cases HIV serology was requested and was positive, all of them presenting less than 100 CD4 at diagnosis. All three patients started antiretroviral treatment.
Conclusions: The incidence of *P. jirovecii* pneumonia has decreased dramatically due to antiretroviral treatment and prophylaxis. Nevertheless, it remains one of the main causes of opportunistic infections among uncontrolled HIV patients and especially among those who are unaware of their HIV diagnosis.

1283 / #EV0731

INDETERMINATE FEBRILE SYNDROME IN IMMUNOCOMPETENT YOUNG MEN

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Case Description: A 38 year old man, immunocompetent, with no significant prior diagnosis, was admitted with a 12 days history of fever, headaches, myalgia and night sweating, after a country side trip. He was febrile, presenting with pharyngitis and a mild rash over his torso and legs. Initially, both laboratory and imaging tests did not show relevant findings.
Clinical Hypothesis: Zoonosis was assumed.
Diagnostic Pathways: The patient was empirically medicated with doxycycline and ceftriaxone, with a brief improvement of his symptoms, followed by an overall decline. Additional investigation showed leukocytosis with lymphomonocytes, cytocholestasis parameters, elevated C-reactive protein, positive cytomegalovirus (CMV) IgM antibodies (negative IgG), as well as multiple infectious diseases antibodies, considered to be a cross reaction. Imunophenotype study excluded hematological diseases; autoantibodies were negative; A positive CMV viremia (2270UI/mL), confirmed this acute infection. During hospitalization, he developed pneumonitis related to CMV infection and macrophage activation syndrome (hypertriglyceridemia, high LDH, lymphomonocytosis). Ganciclovir treatment was started with rapid full recovery. No relevant findings were shown on bronchoscopy. Repeated blood tests some weeks later confirmed the positive evolution of this syndrome, corroborating the diagnosis.
Discussion and Learning Points: Acute primary CMV infection in immunocompetent patients is commonly asymptomatic or mostly characterized by nonspecific symptoms (fever, adenomegaly, splenomegaly, pharyngitis and several hematological findings). It is generally self-limited with complete recovery after a few days or weeks. Although CMV symptomatic infection is more common on immunocompromised patients, occasionally, it can present on the immunocompetent host and should be included in the differential diagnosis of an unknown origin febrile syndrome.

1169 / #EV0732

REACTIVE ARTHRITIS: A CLINICAL CASE

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Case Description: A 18 years old male, smoker (6 pack year) with occasional hashish consumption and previous history of unprotected sexual contacts presented at the emergency department with a four-week presentation of disabling asymmetric inflammatory polyarthralgias (left wrist and knee, right hip, back pain and right plantar enthesitis). Three weeks before he had urethritis and one week after that a bilateral conjunctivitis.
Clinical Hypothesis: Sexually transmitted infection (STI), spondyloarthropathies.
Diagnostic Pathways: The analytic study revealed elevated inflammatory parameters (reactive c protein 129.70 mg/L, leukocytosis of 13 590/uL, ferritin of 1004 and sedimentation rate 70 mm/h) and positive HLAB27. Positive polymerase chain reaction of *Chlamydia trachomatis* in urine sample. Knee arthrocentesis excluded septic arthritis. Knee and back MRI documented inflammatory tissues without local complications. The rest of the investigation (negative HIV and other STI, other autoimmune study, blood arterial gas analysis, EKG, thoracic x-ray, echocardiogram, blood and urine cultures) was unremarkable.
Discussion and Learning Points: Reactive arthritis, previously known as Reiter's syndrome, is a systemic illness characterized by a sterile synovitis that usually targets knees, secondary to a bacterial infection (genitourinary or/and gastrointestinal), in genetically predisposed individuals (often with HLA-B27 carriers). We present a typical case of a reactive arthritis in a young male with risky behavior. We were able to treat him with NSAIDs - the first-line drug – and also, empiric antibiotic therapy.

 DOI: 10.12890/2022_V9Sup1

2218 / #EV0733

CAMPYLOBACTER FETUS BACTEREMIA IN AN IMMUNOCOMPROMISED HOST: A RARE ENTITY WITH POTENTIAL COMPLICATIONS

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Case Description: A 61 year old male from Spain, without prior diseases, is admitted to internal medicine ward due to an episod of dysphagia and epigastric pain. The patient also referred weightloss in the last month. At admission he presented fever up to 38.3ºC only that day. The general state was good and the physical examination was normal except for the presence of jaundice and epigastric pain during palpation. At admission, a blood test was done which showed hemoglobin 10.9 g/dl, leukocytes 21.7x109/l, neutrophils 18.15x109/l, aspartate aminotransferase77 U/l, alanine aminotransferase 110 U/l, gamma glutamyl aminotransferase 204 U/l, alkaline phosphatase157 U/l, total bilirubin 2,77 mg/dl, direct bilirubin 0,8 dl, reactive C protein 294 mg/l and procalcitonin 6.42 ng/ml.

Clinical Hypothesis: The existance of a digestive system tumor was suspected.

Diagnostic Pathways: A computed tomography was done which showed two synchronous neoplasms in the esophagus and colon with liver, lymph nodes and adrenal metastases. During the fever spike, blood cultures were extracted. *Campylobacter fetus* was detected five days later. Amoxicillin-clavulanic acid treatment was started at that moment.

Discussion and Learning Points: *Campylobacter fetus* is a rare pathogen in humans and it is a causative agent of bloodstream infections which could involve distant organs. This bacteria is ussually a zoonotic pathogen, though it has also been found in gut microbiota. Risk groups are those who are occupationally exposed or those who are immunocompromised by underlying diseases. In this last situation it behaves like an opportunistic infection, such as in our patient.

389 / #EV0734

FEVER IN COVID-19 TIMES

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Case Description: Women (68 years old), hypertensive, obese, type2-diabetic. Fever and urine infection (UTI) during a month treated with amoxicillin/clavulanic acid. She got the diagnosis of methicillin sensible *Staphylococcus aureus* (MSSA) UTI with bacteremia and several pulmonary space-occupying lesions (SOL) likely of embolic origin. She initiated treatment with levofloxacin in infectious ward of University Hospital of Badajoz, keeping herself hemodynamically stable during the first days but she was referred to ICU because of respiratory acute failure. Ceftriaxone, daptomycin and cloxacylin were started with respiratory improvement. At surgery, there were identified two verruca in native pulmonary valve and was placed a cryopreserved homograft. No short-standing issues but serious aggravation after 24h post-procedure and decease.

Clinical Hypothesis: MSSA Bacteremia, pulmonary valve isolated endocarditis with MSSA vegetation, pulmonary embolism likely septic and thrombotic origin, basal right pneumonic consolidation.

Diagnostic Pathways: Trans-thoracic and trans-esophageal echocardiogram reported right-side dilatation, right-side preserved systolic function, pulmonary systolic artery pressure (PSAP) of 65mmHg, 23mm size vegetation in pulmonary valve compatible with native endocarditis. Thoracic-abdominal-pelvic CT-scan showed right hemi-thoracic pneumonic consolidation, patching areas in frosted glass shape and septic embolisms,besides segmental pulmonary embolism.She started therapeutic anticoagulation and at one point Cardiac Surgery assess her considering procedure in case of improvement.

Discussion and Learning Points: Pulmonary valve Isolated Infectious endocarditis is quite rare (0-1.5%), being exceptional in absence of predisposing factors. Right-side intravenous addiction is the most common cause of right-side endocarditis (0.75-3.5%). Trans-esophageal echocardiogram has a 90% sensitivity and trans-thoracic echocardiogram 70%. Cryopreserved homograft has less risk of valve degeneration and complications and higher surveillance, being preferred treatment.

DOI: 10.12890/2022_V9Sup1

363 / #EV0735

THE IMPORTANCE OF EPIDEMIOLOGY IN LEGIONNAIRES DISEASE

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Case Description: A 61-year-old man, smoker, presented with fever, dyspnea and productive cough with white sputum, with 5 days of evolution, with no other complaints. He was normotensive, febrile (38ºC), without respiratory insufficiency and with diffuse wheezing on pulmonary auscultation. Laboratory work showed an elevation of inflammatory parameters. The chest X-ray showed perihilar congestion. He was discharged medicated with amoxicillin/clavulanic acid. Three days later, he returned to the hospital with worsening symptoms and with type 1 respiratory insufficiency. He had wheezing and crackles in the right lung base compatible with radiological worsening, with condensation in the right lung base.

Clinical Hypothesis: Considering clinical features and complementary tests available, pneumoniae was the most likely diagnosis. When investigating the epidemiological context, it was noticed that the patient was a professional driver with exposure to air conditioning, which rose the suspicion of Legionnaires' disease.

Diagnostic Pathways: From the etiological study performed, he had hyponatraemia and urinary antigens were positive for Legionella pneumophila, confirming the diagnosis. He completed 7 days of antibiotic therapy with ceftriaxone and clarithromycin with a favorable response.

Discussion and Learning Points: Legionnaires' disease can manifest as severe pneumonia caused by the bacterium *Legionella pneumophila*. The disease is transmitted by contaminated aerosols present in water, soil or air conditioning. Considering the form of transmission of the disease, its evolution, which can be severe without adequate treatment, and being clinically and radiographically similar to other pneumonias, it is important to identify and diagnose this mandatory declaration disease. This case emphasizes the importance of the epidemiological context.

1173 / #EV0736

RASH IN THE TREATMENT OF SEPTIC ARTHRITIS

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Case Description: A 60-year-old woman, obese and with a left hip prosthesis presented with a right hip pain, with no other complaints. She was normotensive, tachycardic, febrile (38ºC) and she had pain and heat in the right hip. Laboratory work showed an elevation of inflammatory parameters. The chest-abdominal-pelvic computed tomography scan highlighted dysmorphia in the right femoral head.

Clinical Hypothesis: Considering clinical features and complementary tests available, septic arthritis was the most likely diagnosis. Gout or reactive arthritis were not excluded.

Diagnostic Pathways: Arthrocentesis was performed and septic arthritis was confirmed. Antibiotic therapy with vancomycin and piperacillin/tazobactam was started. Blood cultures showed *Streptococcus agalactia*. On the 8th day of treatment, vancomycin was discontinued due to renal function. On the 18th day, a maculopapular eruption appeared in the abdomen, chest and armpits of the patient and piperacillin/tazobactam was suspended. Oral corticosteroids and antihistamics were instituted for 5 days. At the time of discharge, the patient was referred to Orthopedics for elective surgical treatment.

Discussion and Learning Points: Septic arthritis is a joint infection usually caused by bacteria. In most cases, involvement of the joint occurs in patients with bacteremia with a history of arthritis. Knowing it's a disease requiring antibiotic therapy that can potentially have toxic effects for the patient, it is important to identify and treat potential adverse reactions, such as rash that can affect around 4% of patients on piperacillin/tazobactam. This case emphasizes the importance of targeted and insightful approach that we must have when instituting a therapy, considering the risk/benefit at all times.

1068 / #EV0737

PECTORALIS MAJOR MUSCLE ABSCESS IN AN IMMUNOCOMPROMISED ADULT

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Case Description: A 52-year-old caucasian male, with a history of HIV, presented to emergency department complaining of moderate chest pain over the right pectoralis muscle, which had started 7 days before presentation. He had no other complaints, fever or adenopathies. He denied any history of trauma, surgical interventions, prior episodes and intravenous drug use. Physical exam revealed swollen, erythematous and tender right chest.

Clinical Hypothesis: The history and physical examination suggested an infectious disease.

Diagnostic Pathways: Analytically he had an elevated white blood cell count of 15,600×109/l with 84% neutrophils, haemoglobin 13,3 g/dl and normal mean cell volume (MCV) and platelets. Renal function, electrolytes and liver function tests were normal, with a C-reactive protein of 123 mg/dl. Computed tomography discovered fluid build-up anterior to the right pectoralis major muscle with dimensions 87x33x91 mm and axilar adenopathies. On admission, the patient was started on intravenous antibiotics,

 DOI: 10.12890/2022_V9Sup1

including piperacillin, tazobactam, and vancomycin. Percutaneous drainage was performed and a purulent fluid was found. The patient improved with serial drainages. Cultures were negative. The patient completed 6 weeks of antibiotic therapy, with evidence of complete abscess resolution.
Discussion and Learning Points: Pyomyositis is an acute infection of the skeletal muscle, usually resulting from hematogenous spread or due to muscle injury. Immunocompromised patients are more prone to develop pyomyositis. Treatment of pyomyositis abscess has traditionally been with incision and drainage or guided aspiration followed by a prolonged course of antibiotics.

1074 / #EV0738

TUBERCULOUS MYOSITIS

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Case Description: A 83-year-old caucasian female presented to the emergency department with a tender neck mass rapidly increasing in size for the last month. She had a history of arterial hipertension, dyslipidemia and diabetes mellitus type 2. On admission, her vital signs were within normal. The neck mass was described as 5 cm fluctuant mass, located just lateral to the sternocleidomastoid muscle but without overlying skin changes.
Clinical Hypothesis: The history and physical examination suggested an infectious or neoplastic disease.
Diagnostic Pathways: Analytically, she presented with normochromic and normocytic anemia (hemoglobin 10.1g/dL) and elevated C-reactive protein (100 mg/L). Computed tomography revealed several hypodense loculations with peripheral contrast product, with irregular contours and variable dimensions, in the sternocleidomastoid muscle. She was admitted to an Internal Medicine ward for study of the clinical case. The patient completed 8 weeks of meropenem and clindamycin without improvement. IGRA was positive. Blood cultures were negative and histology and citology of fluid were negative for malignant cells. *Mycobacterial* PCR on the abscess fluid was reported as positive and after 6 weeks, the mycobacterial culture grew a pan-sensitive isolate of Mycobacterium tuberculosis. She was empirically started on 4-drug anti-TB therapy with isoniazid, rifampin, ethambutol, pirazinamide and pyridoxine. However, the patient had a nosocomial respiratory infection and died after 130 days of hospitalization.
Discussion and Learning Points: Tuberculous myositis occurred in about 2% of patients with tuberculosis and should be considered as one of the aetiologies, especially in areas where tuberculosis is endemic. The findings of CT scans are very helpful in differential diagnosis.

1083 / #EV0739

A CASE OF BRUCELLOSIS PRESENTING WITH PERICARDIAL EFFUSION

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Case Description: A 65-year-old woman was admitted to the emergency department with 2-month history of fatigue that rapidly increasing in the past week. She denied other symptoms. She lived in rural villages and consumed fresh cheese. She had a history of diabetes mellitus type 2. The patient was hemodynamically stable and the physical exam revealed hypophonetic heart sounds.
Clinical Hypothesis: The history and physical examination suggested an infectious, autoimmune or neoplastic disease.
Diagnostic Pathways: Laboratory investigations showed a normal complete blood count, high levels of C-reactive protein (20 mg/l) and an erythrocyte sedimentation rate of 35. Electrocardiography was normal. Chest radiograph shows an enlarged cardiac silhouette. Transthoracic echocardiography showed pericardial effusion (pericardial thickness of 3.3 cm) without cardiac tamponade, normal valves and no signs of endocarditis. Tests for anti-*Brucella* IgM were strongly positive. Additional laboratory tests were performed to rule out other differential diagnoses such as cardiological or rheumatological disease or other infecions diseases. A diagnosis of *Brucella*-related pericarditis in the absence of concomitant endocarditis was made. Oral doxycycline 100 mg twice daily plus oral rifampin 600 mg once daily was started. The patient's symptoms resolved and transthoracic echocardiography was normal 3 months after treatment.
Discussion and Learning Points: This case shows that in endemic areas, *Brucella* can be considered as a potential causative agent of pericardial effusion, even in the absence of concomitant endocarditis. This possibility could be considered particularly in cases where infection of brucellosis is possible.

1847 / #EV0740

THE US AND CT IMAGING FINDINGS IN ACUTE PYELONEPHRITIS - A RETROSPECTIVE OBSERVATIONAL STUDY OF PATIENTS ADMITTED TO AN INTERNAL MEDICINE DEPARTMENT

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Background and Aims: Approximately 250,000 cases of acute pyelonephritis occur each year, resulting in more than 100,000 hospitalizations. The diagnosis of acute pyelonephritis is predominantly made by a combination of typical clinical features with urinalysis findings. Imaging is generally reserved for patients who have atypical presenting features or in those who fail to respond to conventional therapy. The aim of this study is to describe the common ultrasound (US) and computed tomography (CT) features of acute pyelonephritis.

 DOI: 10.12890/2022_V9Sup1

Methods: A retrospective observational study of a cohort of patients admitted to an internal medicine department with a diagnosis of acute pyelonephritis between January 1, 2019 and June 30, 2020. The data were retrieved from patient's clinical records. Statistical analysis was performed using Microsoft Excel.
Results: During the study period, 114 patients were admitted with acute pyelonephritis. Of these, 74 were women (64.9%) and the average age was 61.6 years. All patients underwent to US and/or CT: 89 (83,9%) patients underwent CT, 8 (6.9%) ultrasound and 17 (16.0%) both. CT imaging findings: 49.1 % (n=52) perirenal fat stranding; 34,9% (n=37) diffuse heterogeneous parenchymal enhancement; 15.1% (n=16) diffuse renal enlargment; 15.1% (n=16) pyelitis showing thickening and enhancement of central collecting system; 0.9% (n=1) well delineated parenchymal abscess. US imaging findings: 8% (n=2) diffuse renal enlargement; 8% (n=2) focal hypoechoic regions.
Conclusions: The results are consistent with previous studies. CT is the gold standard for imaging assessment of pyelonephritis severity. On the other hand, ultrasound is insensitive to the changes of acute pyelonephritis.

1328 / #EV0741

LEPTOSPIROSIS – A SEPTIC SHOCK WITH AN UNUSUAL ORIGIN

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Case Description: 63 year-old man admitted to the emergency department (ED) with fever and persistent headache with onset 5 days earlier associated with diffuse abdominal pain and watery diarrhea. When asked about is housing and workplace conditions he mentioned living in a rural area and working as a grocer, having contact with a warehouse infested with rats. He denied recent traveling, contact with other animals or consumption of non potable water. Initial physical examination did not show significant anomalies, namely conjunctival hyperaemia, hypotension or signs of poor peripheral perfusion. Blood tests showed elevation of C-reactive protein and leukocytosis, severe hyponatremia, rhabdomyolysis and acute kidney injury. An abdominal ultrasound was performed and showed mild hepatosplenomegaly. During ED observation he developed sepsis with multiorganic disfunction – renal, haematologic and cardiovascular requiring inotropic support.
Clinical Hypothesis: The clinical presentation favored a systemic infection from an unusual pathogen. Urine and blood samples were harvested for serologic and molecular diagnostics of infectious agents. Nevertheless, due to favorable epidemiological context Leptospirosis was admitted as the most likely agent and empirical therapy was instituted with ceftriaxone.
Diagnostic Pathways: 4 days after the admission urinary leptospira DNA was positive, confirming the presumptive diagnosis. Ceftriaxone was maintained until 7th day with full recovery, being discharged from the hospital. Reavaluated in outpatient setting 2 months after discharge presenting complete laboratorial recovery.
Discussion and Learning Points: The present case highlights the importance of recognising the clinical presentation of rare zoonosis. A high level of suspicion is required to raise this pathogen as a diagnostic hypothesis at baseline, allowing adequate empirical therapeutics to be instituted before laboratorial confirmation.

2560 / #EV0742

HIV AND WALDENSTRÖM MACROGLOBULINEMIA- AN UNUSUAL COMBINATION – CASE REPORT

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Case Description: HIV infection is associated with several neoplastic diseases. Waldenström Macroglobulinemia (WM) is a rarely encountered lymphoplasmacytic lymphoma, accounting for less than 2% of all hematologic cancers. The association with HIV infection is rarely reported in the literature. The authors describe the case of a 72 years old man with HIV infection diagnosed in 2015, controlled with antiretroviral therapy. He had pulmonary tuberculosis treated for 1 year in 1973, syphilis treated in 1976 and reinfection in 2011; COPD GOLD II; acute hepatitis A in 2018. In 2015 a monoclonal gammopathy IgM/ Kappa was diagnosed: IgM 2102 mg/dl and K/L ratio 2.26. By march 2021, he evolved with weakness, anorexia, and weight loss.
Clinical Hypothesis: Non-Hodgkin lymphoma, multiple myeloma, pulmonary tuberculosis reactivation, anti-retroviral treatment failure.
Diagnostic Pathways: Laboratory findings included: anemia 9,5 gr/dl; thrombocytopenia 117000/ul; ferritin 301 ng/ml; folic acid 6.4ng/ml; B12 vitamin 420pg/ml; IGRA negative; HIV viral load undetectable. Medullar study was performed, bone marrow biopsy revealed "diffuse involvement compatible with lymphoplasmacytic Non-Hodgkin lymphoma. Decreased hematopoietic cellularity of the 3 lines. Immunohistochemical study reveal staining for CD20 and absence of CD3 and CD5".
Discussion and Learning Points: WM was diagnosed, he started treatment in February 2022 with rituximab plus cyclophosphamide plus dexamethasone. By the third treatment the medullar response was positive. This case highlights a rare combination of diseases and reinforces the importance of obtaining several differential diagnostics when a gammopathy appears in a HIV positive patient.

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 DOI: 10.12890/2022_V9Sup1

PERICARDIAL AND PLEURAL EFFUSION IN AN OCTOGENARIAN... WHY?

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Case Description: Polyserositis is by definition the inflammation and consequent effusion of serous membranes. It has been associated with different etiologies, with malignancy, infectious and autoimmune diseases being the most common causes. Two frequent sites of serosal involvement are pleura and pericardium. The authors describe a case of an 86-year-old man with asthenia and dyspnea for several weeks that appeared with tachycardia, hypotension, jugular ingurgitation, polypnea and low electrocardiography voltage. Given the hemodynamic compromise, he was admitted to the Cardiology Intensive Care Unit in which he was submitted to a transthoracic cardiac ultrasound that exposed a massive pericardial effusion with cardiac tamponade leading to pericardiocentesis. Furthermore, a chest radiography revealed pleural effusion and a thoracocentesis was performed likewise.

Clinical Hypothesis: A malignant etiology was considered but the absence of neoplastic cells in the drained liquid made it improbable. An autoimmune cause was also considered as a differential diagnosis, however, antibody screening was negative. Although an infectious cause was contemplated, no agent in the bacteriological culture was found.

Diagnostic Pathways: Nonetheless, the cytological and analytical findings were highly suggestive of tuberculosis (TB) - 91% lymphocyte prevalence, ADA>40 U/l and the fulfillment of ⅔ of the Light's criteria (probability of exudate)- which was why antituberculosis treatment was initiated. The mycobacteriology culture is still in progress.

Discussion and Learning Points: Given the high prevalence of TB in Portugal, less common presentations, such as polyserositis, must be known by physicians, so that diagnosis and treatment are not delayed. Considering the high mortality rate of cardiac tamponade, a timely intervention is essential for the overall survival.

378 / #EV0744

POTT'S DISEASE – A CHALLENGING DIAGNOSIS

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Case Description: 27-year-old man, Pakistani living in Portugal for 1 year. He went to the ER due to pain in the right rib cage, with 3 months of evolution and progressive worsening, without fever, cough, dyspnea, night sweats or weight loss. He denied any history of trauma. On physical examination: febrile, polypneic, absent breath sounds on the right hemithorax on pulmonary auscultation. Chest CT showed right-sided posterior laminar pleural effusion and numerous mediastinal adenomegaly.

Clinical Hypothesis: Tuberculosis, Lymphoma, HIV.

Diagnostic Pathways: From the study: elevation of inflammatory parameters, anemia, infectious serologies negative; negative blood cultures. Diagnostic thoracentesis showed exudative characteristics, an ADA of 78 and a predominance of mononuclear cells. Cytology was negative for malignant cells, negative microbiological and mycobacterial results, and negative PCR for Koch's bacillus. Due to persistent severe chest pain, he repeated chest CT that showed a fracture of the 6th rib and bone lesion from D5 to D8, which was better characterized by MRI as a bulky soft tissue mass with bone involvement, suggesting osteomyelitis. A CT-guided spinal biopsy was positive for Koch's bacillus PCR and an *Enterococcus* isolated on microbiological examination. He started HRZE and ampicillin, with indication to perform 2 months of HRZE and 10 months of HR.

Discussion and Learning Points: Pott's Disease is an extra-pulmonary manifestation of tuberculosis that often involves the spinal, dorsal and lumbar column. The diagnosis is often delayed because of its indolent course. It was even more challenging by the absence of a past history of tuberculosis or respiratory complaints, as well as no isolation on pleural fluid.

875 / #EV0745

BRUCELLOSIS ASSOCIATED WITH ARTHRITIS

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Case Description: A 62-year-old woman living in a rural area, with no history of ingestion of unpasteurized milk products or close contact with animals, presented to the emergency department with high fever lasting for 7 days. Blood tests revealed elevated inflammatory parameters and slight elevation of AST and ALT. Blood culture and serological tests (including for *Brucella* and Rickettsial diseases) were negative. After 14 days of doxycycline therapy the fever and inflammatory parameters were resolved and she was discharged. During one-month follow-up appointment

 DOI: 10.12890/2022_V9Sup1

she developed large joints and sacroiliac arthralgia for the first time along with persistent low back pain and no fever.
Clinical Hypothesis: Infectious diseases: viral hepatitis, VIH, zoonosis, etc. Autoimmune and cancer (lower suspicion)
Diagnostic Pathways: Serological tests revealed IgM-positive (9.16 UA/mL), IgG-negative anti-*Brucella* abortus (Ba) antibodies. Brucellosis with axial and joint involvement was suspected and therapy with ciprofloxacin and rifampicin was started. At 6-week follow-up IgM-positive anti-Ba antibodies were still rising. Symptoms resolution and IgM anti-Ba antibodies negativization occurred following 3 months of treatment.
Discussion and Learning Points: Osteoarticular disease, particularly sacroiliitis, is the most common complication of Brucellosis occurring in up to 70% of patients. In these cases, treatment must be prolonged for at least 3 months. Although in our case clinical history was not particularly suggestive of brucellosis, performing the serological tests was important, as it allowed for an accurate diagnosis and specific treatment plan. As this case illustrates, even if suggestive history is missing, it is imperative to exclude zoonosis in patients living in rural areas presenting with fever of unknown origin.

1349 / #EV0746

AFTER ALL IT WAS TUBERCULOSIS!

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Case Description: A 62-year-old woman with a previous history of asthma, irritable bowel syndrome and osteoarthritis who was sent from the neurosurgery consultation to the internal medicine department to study a longitudinally extensive intraspinal dural/extradural expansive lesion (D2-D10) inaccessible to biopsy. She additionally presented asthenia, adynamia and gait ataxia.
Clinical Hypothesis: Spinal meningeal sarcoidosis; spinal IgG4 disease; spinal meningeal tuberculosis or other infectious diseases.
Diagnostic Pathways: During hospitalization, a lumbar puncture was performed. Cerebrospinal fluid results were suggestive of tuberculosis (hyperproteinorrhachia, hypoglycorrhachia and positive ADA). Antibacillary therapy and corticotherapy were strated, with clinical improvement.
Discussion and Learning Points: In tuberculous meningitis, symptoms generally have an insidious onset. It should be noted that there are symptoms that may not be typical, and that they are variable depending on the affected organ. The basis of the diagnosis is the lumbar puncture. Timely diagnosis allows for prompt treatment and better prognosis. Glucocorticoids are considered beneficial as an adjuvant to anti-TB drugs.

2423 / #EV0747

A WOMAN WITH FEVER AND SPACE OCCUPYING LIVER LESIONS

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Case Description: A 57-year-old woman came to the emergency room for fever and abdominal pain. She does not have personal medical history of interest except for a diagnosis of Hodking lymphoma which was treated when she was 19 years old without evidence of disease nowadays. She refers one week of high fever and abdominal pain located at right hypochondrium. The physical examination did not show alterations. The blood tests showed hypertransaminasemia and hyperbilirubinemia. There was also an elevated CRP and leukocytosis. An abdominal ecography was done which showed a lot of space occupying liver lesions
Clinical Hypothesis: The clinical hypothesis was a infectious cholangiti.
Diagnostic Pathways: Antibiotic therapy was started after blood cultures and serology extraction. A cholangio-MRI was done who confirm the diagnosis of cholangitis. It was also done a BodyCT that confirmed the presence of multiple liver lesions that suggested abscesses. Blood cultures were negative but the serology was compatible with a acute *Coxiella burnetii* infection. A control liver CT was done after two weeks doxicicline regimen in with the liver lesions had been disappeared. A finally diagnose of hepatic Q fever was made.
Discussion and Learning Points: *Coxiella burnetii* is the pathogen involves in Q fever. Clinically it could be present with a high spectrum of disease manifestations. Granulomatous hepatitis could be a form of presentation with typical doughnut granulomas in the liver biopsy. Although it is uncommon It could be also present as an acute cholangitis without granulomas. For nonprenant patients the treatment recommended is doxycycline alone for 14 days.

347 / #EV0748

"HUMAN IMMUNODEFICIENCY VIRUS AND INFLAMMATORY BOWEL DISEASE: A CLINICAL AND THERAPEUTICAL COMPARISON".

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Background and Aims: Antiretroviral therapies increase HIV life expectancy and prevalence, increasing its association with autoimmune diseases such as inflammatory bowel disease. Identify frequent health problems (AIDS-defining illnesses, hospitalization processes, ...) in patients with HIV and IBD. Analyze whether use of immunosuppressive biological drugs increases frequency of these health problems or reduces IBD related events.

 DOI: 10.12890/2022_V9Sup1

Methods: Longitudinal, retrospective, cohort study comparing 2 cohorts of patients with IBD, one of which is composed of HIV-IBD patients. 34 patients with IBD and HIV under follow-up at Hospital Príncipe de Asturias were analyzed (12 had received biological immunosuppressive treatment). 54 HIV negative IBD patients with similar baseline characteristics were used for comparison.
Results: A subgroup with HIV, IBD and biological immunosuppression showed higher mean leukocytosis; oral-sore appearance rate, as well as greater need of intravenous antibiotherapy compared with control group without HIV. Mean number of hospitalizations for IBD flare-ups (1.37 in IBD cohort versus 2.33 in HIV-positive group; 1.13 in HIV without biologic) and mean number of digestive complications (1.30 in IBD cohort versus 1.83 in HIV with biologic and 0.88 in the HIV without biologic groups) neared statistical significance (p 0.10 and 0.09). Infectious enteropathy appeared in 42.8% of patients with both pathologies, compared to 9.2% of patients with IBD (p 0.01).
Conclusions: HIV infection does not aggravate clinical course of IBD. Biological immunosuppression when both pathologies coexist does not worsen immunovirological parameters or increases hospitalizations for HIV-associated pathologies. Infectious enteropathy frequency might be increased when IBD and HIV infection coexist, without being associated with biological therapy.

2002 / #EV0749

MR. BRAVO, THE COOK

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Case Description: 58-year-old male. No known drug allergies. History of hypertension, type 2 diabetes mellitus andhyperuricemia in treatment with pravastatin/fenofibrate and sitagliptin/metformin. He works as a cook. Presenting symptoms: he consults the emergency-call room because he has had swelling in the 4th finger of the left hand, progressively affecting the hand and forearm for three days . He has had a shivering sensation one day without thermometric fever. She does not remember any associated trauma, he works with food and had recently prepared several seafood dishes where he works. No gastrointestinal symptoms. Examination: Normotensive. No fever. No neurological focality. Well perfused and hydrated. Rhythmic PCA without patologicall findings. Abdomen soft, not painful. No edema or signs of DVT in MMII. Erythema, flushing and swelling in left hand up to 1/3 anterior forearm. No crackles. Low risk LRINEC.
Clinical Hypothesis: Subcutaneous infection and *Vibrio parahaemolyticus* bacteremia.
Diagnostic Pathways: In blood test highlights PCR of 83. Rest of biochemistry, blood count, coagulation, chest X-ray and electrocardiogram normal. Blood cultures showed growth of *Vibrio parahaemolyticus*.
Discussion and Learning Points: *V. parahaemolyticus* is a gram-negative bacterium found in marine and estuarine environments. It can infect the host with infected seafood consumed, causing damage in the gastrointestinal system and can also make their way into an open wound during exposure to saltwater. The diagnostic method of choice is obtaining a stool culture and doxycycline is the antibiotic of choice.

716 / #EV0750

COMMUNITY-ACQUIRED PNEUMONIA DUE TO LEGIONELLA PNEUMOPHILA. RETROSPECTIVE OBSERVATIONAL STUDY OF THE LAST FOUR YEARS IN A SECOND-LEVEL HOSPITAL

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Background and Aims:
L. pneumophila is an important causal agent of atypical pneumonia with great interest in Public Health. It is the second microorganism responsible for severe community pneumonia, after *Pneumococcal* disease. The importance of determining the characteristics of the patients, the evolution and the severity factors is noteworthy. Our aim is to carry out a retrospective observational study of the epidemiological, healthcare and clinical data of the documented cases of community-acquired pneumonia caused by *L. pneumophila* in our center from 2017 to 2020.
Methods: 16 patients with diagnosis of *L. pneumophila* were included during the period 2017-20 of which the symptoms, laboratory results, therapeutics and prognosis were analyzed.
Results: 16 patients were collected of which 62.5% (n=10) are male and 75% (n=12) are older than 50 years; which are mainly of hospital profile in 81.25% (n=13), and require admission to the ICU in 18.75% (n=3); with a mortality rate of 0%. No cluster pattern is appreciated, but 100% (n=16) are isolated cases. The diagnosis in all cases is produced by positive urine antigen. Regarding treatment 37.5% (n=6) started with amoxicillin-clavulanate with poor response, and subsequently received levofloxacin 500mg in all of them. Despite the small prevalence of the study series, there is an increase over the years, possibly in the context of better access to diagnostic techniques.
Conclusions: It is necessary to highlight the failed response to beta-lactams in mono-therapy, as well as the importance of early diagnosis and treatment in moderate/severe pneumonia, those requiring hospitalization, possible exposure in an epidemic outbreak or immunosuppressed patients.

 DOI: 10.12890/2022_V9Sup1

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CYTOMEGALOVIRUS-ASSOCIATED TRANSVERSE MYELITIS IN IMMUNOCOMPETENT PATIENTS: RETROSPECTIVE OBSERVATIONAL ANALYSIS

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Background and Aims: Cytomegalovirus (CMV) is a common opportunistic pathogen in severely immunosuppressed patients, causing a variety of conditions. Although transverse myelitis in HIV patients has been widely described, being immunocompetent patients makes it exceptional cases. Our aim is to carry out a retrospective observational study of the epidemiological, healthcare and clinical data of the documented cases of transverse myelitis associated with CMV in immunocompetent subjects.
Methods: 20 immunocompetent patients with a diagnosis of transverse myelitis due to CMV are included, of which the symptoms, physical examination, complementary tests, treatment and prognosis are described.
Results: 20 patients were collected, of which 65% (n=13) are male and 45% (n=9) older than 50 years, 20% (n=4) require admission to the ICU; along with a mortality rate of 0% (n=0). At the beginning of the symptoms 100% had an inability to ambulate with flaccid paralysis of the lower extremities and the presence of a sensory level; recovering after two months 90% (n=18). Diagnosis in all of them is made through MRI together with serology and viral load quantification. Regarding treatment, 80% (n=16) started with high doses of corticosteroids and immunoglobulins in addition to ganciclovir, with the remaining 20% (n=4) being treated without antivirals.
Conclusions: Despite the small sample of the study series and its retrospective nature, the existence of a correlation between the use of high doses of corticosteroids with clinical improvement is impressive, which may suggest an immune-mediated parainfectious disease associated with the neuroinvasive role of cytomegalovirus in these cases.

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PNEUMOCYSTIS JIROVECII PNEUMONIA. OBSERVATIONAL RETROSPECTIVE STUDY OF THE LAST FIVE YEARS.

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Background and Aims: *Pneumocystis jirovecii* persists as one of the most important opportunistic pathogens in immunosuppressed subjects, in whom it produces severe pneumonia (PcP) with a high rate of morbidity and mortality. Our aim is to carry out a retrospective observational study of the epidemiological, healthcare and clinical data of the documented cases in our center from 2016 to 2020.
Methods: 16 patients with a microbiological diagnosis of infection by Pneumocystis jirovecii during the period 2016-2020 were included in our center, which are classified by clinical, therapeutic and prognosis.
Results: 16 patients were collected of which 62.5% (n=10) were male and 75% (n=12) under 50 years, all immunosuppressed: 75% (n=12) HIV, 18.75% (n=3) Non-Hodgkin's Lymphoma and 6.25% (n=1) kidney transplant. In the HIV subgroup 100% of the subjects presented a CD4 count <200, being diagnosed as a consequence 33% (n=4); on the other hand 100% of the subgroup showed elevated LDH, but not of 1-3-beta-D-glucan, only elevated in 25% (n=3) thereof. Regarding the symptoms 100% presented non-productive cough and progressive dyspnea, 87.5% (n=14) had fever and hypoxia. Radiologically 100% showed bilateral interstitial infiltrates, which initiates the diagnostic suspicion, confirmed by indirect immunofluorescence after fiberoptic bronchoscopy in 75% (n=12) and induced sputum in 18'75% (n=3). 100% started treatment with Trimetopim-Sulfamethoxazole at therapeutic doses in addition to corticosteroids 87.5% (n=14), and a mortality rate of 18.75% (n=3).
Conclusions: Despite the small sample, there is a decrease compared to previous series, probably associated to a greater implementation of TAR, early diagnosis of the causes of immunodeficiency and prophylactic therapy.

1391 / #EV0753

THE 100 MOST CITED ARTICLES IN ENGLISH LANGUAGE ABOUT NOSOCOMIAL PNEUMONIA: BIBLIOMETRIC ANALYSIS

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Background and Aims: Nosocomial Pneumonia (NN) is the second leading cause of nosocomial infection. *Staphylococcus aureus* and Gram-negative are the main agents involved. Risk factors can be intrinsic (situations that alter immunity) or extrinsic (diagnostic-therapeutic interventions). The associated mortality rate is estimated at 10%. A delay in the start of treatment is associated with a higher incidence of death. Bibliometric analysis of the 100 most relevant articles in English in the field of nosocomial pneumonia.
Methods: Research on the WebofScience database for articles which title included "nosocomial pneumonia" or "hospital-acquired pneumonia". Articles with the highest number of citations were selected, analyzing number and density of citations, authors, institutions, country, journal and year of publication and level of evidence.

 DOI: 10.12890/2022_V9Sup1

Results: These 100 articles as of January 2018 accumulated 23,535 citations (average: 534.89/year), ranging from 3244 to 97 (average: 235.35). The first reference was published in 1973 in American Review of Respiratory Disease. The type of therapeutic study (n=40), the decade 1990-1999 (n=38), United States (n=50), Assistance Publique Hospitaux Paris (n=23), Fagon JY (n=20) and the journal Chest (n=15) hold the publishing hegemony. Many were multicenter (n=27) and level of evidence II (n=49). An inverse relationship was observed between the citation index and age, a maintenance of the most cited articles and a temporal progression towards better levels of evidence.
Conclusions: This bibliometric analysis reveals a good level of scientific evidence in the published clinical series. We have collected 100 articles whose knowledge may be useful for the approach to this pathology.

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SPONDYLODISCITIS CAUSED BY MYCOBACYERIUM AVIUM

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Case Description: We present the case of a 42-year-old man with a history of pilonidal cyst with recurrent inflammatory outbreaks, who was admitted for lumbar pain 3 weeks in evolution and fever. For years he reported that he had smelly sweating, dysthermic sensation and diarrhea. The patient denied dairy consumption, had no contact with animals and had no history of tuberculosis. The physical examination was normal. In the complementary tests, there was a high level of inflammatory markers. Serology *Brucella*, *Coxiella burneti*, *Bartonella*, *Borrelia*, HIV, Quantiferon and blood cultures were all negative. Before these findings, a lumbo-sacral resonance was performed where a soft tissue lesion was visualized with involvement of disk L4-L5. A biopsy of the L4-L5 collection was performed with the suspicion of spondydylodiscitis. The biopsy showed chronic inflammation with granulomatous formations of epithelioid and multinucleated cells without central necrosis.
Clinical Hypothesis: After carefully evaluating the radiological, clinical and analytical findings, we thought that it could be a spondydyloascitis caused by TBC. Treatment with tuberculostatics was started empirically with good clinical evolution.
Diagnostic Pathways: A month later, a mycobacterium avium complex was grown in mycobacteria culture. We adjusted the treatment aimed at this bacterium and the patient started azithromycin, rifampicin and etambutol.
Discussion and Learning Points: Spondydylodiscitis caused by non-tuberculosis mycobacteria is an entity described in immunosuppressed patients. The interest of this case lies in its extreme rarity as it is an immunocompetent patient with no history of surgical manipulation of the spine. In a recent review 16 cases of MAC-related vertebral osteomyelitis have been reported in HIV-free individuals.

642 / #EV0755

THE NEED TO THINK ABOUT CANCER DISEASE IN HIV PATIENTS

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Case Description: We present the case of a 54-year-old smoker, drinker, hepatitis C cirrhosis and HIV infection diagnosed in 2008 with discontinuation of treatment about three years ago. Immunological studies revealed HIV stage AIDS with CD4 in 126/ml and viral load 364,000 copies. Admitted to Internal Medicine for weight loss, persistent cough and dyspnea for months of evolution. Physical examination was normal. Radiological studies, chest x-ray and chest CT revealed the presence of a hilar mass in the right upper lobe.
Clinical Hypothesis: The first possibility that we propose as a cause of lung injury is that it was of infectious etiology given the AIDS stage history. We discussed mycobacteria, aspergillosis, or cryptococcosis infection. All these entities were ruled out. A fibrobronchoscopy was done, an endobronchial lesion was seen, with histological results consistent with epidermoid lung carcinoma.
Diagnostic Pathways: In the differential diagnosis we do not consider the most important causes of lung disease in patients with AIDS: Infectious causes: bacterial, fungal, mycobacterial, viral. Kaposi sarcoma, lymphoma, lung carcinoma and lymphocytic interstitial pneumonitis
Discussion and Learning Points: There have now been changes in the presentation and epidemiology of chest manifestations in AIDS due to the introduction of combined antiretroviral therapy and prophylactic antibiotics. This change is manifested in the reduction of the number of infections by common pathogenic and increase of cases of pulmonary neoplasms. Neoplasms and cardiovascular events are now major causes of death in HIV patients; therefore, in AIDS patients very active smokers with radiological findings of lung injury, should force us to rule out lung cancer among others.

1336 / #EV0756

PANCYTOPENIA AND FEVER IN THE PATH OF THE PANDEMIC

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Case Description: A 32-year-old man consulted for a fever of up to 40ºC of two weeks' evolution, with asthenia, arthromyalgia

 DOI: 10.12890/2022_V9Sup1

and jaundice. From the epidemiological point of view: MSM with risky sexual practices. On first assessment, the patient was found to be stuporous, hypotensive, tachycardic and febrile. Examination revealed painful hepatomegaly and bilateral inguinal lymphadenopathy. Urgent laboratory tests were requested, showing pancytopenia (haemoglobin 8.5 g/dL, 550 x 106 lymphocytes and 63,000 x 106 platelets), LDH 1847 U/l, hyperbilirubinaemia (2.78 mg/dL) at the expense of direct bilirubin, elevated transaminases and cholestasis enzymes, coagulopathy with prolonged prothrombin (INR 1.58) time and hyperferritinaemia (2048 ng/L).
Clinical Hypothesis: In this case, we considered the differential diagnosis of a febrile syndrome with cytopenias and organomegaly, as haemophagocytic syndrome, malaria, Brucellosis or visceral leishmaniasis.
Diagnostic Pathways: Bone marrow aspiration was performed and intracellular amastigotes were found, compatible with visceral Leishmaniasis. In view of these findings, treatment with liposomal amphotericin B was started and HIV tests were requested (positive antibodies subsequently confirmed by Western blot).
Discussion and Learning Points: Visceral leishmaniasis is caused by the *L. donovani* complex and is transmitted by anthroponosis and zoonosis. It presents with fever, asthenia and chills, with hepato-splenomegaly and generalised lymphadenopathy appearing in the following weeks. Laboratory findings include anaemia and thrombocytopenia, with hypoalbuminaemia and hypergammaglobulinaemia. The ideal method of diagnosis is the demonstration of amastigotes in smears of aspirated tissue. In all patients with visceral leishmaniasis, co-infection with HIV (present in up to 70% of cases) must be ruled out, which is essential when planning treatment dosage.

2322 / #EV0757

TUBERCULOSIS, THE GREAT SIMULATOR

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Case Description: A 46-year-old Moroccan woman, with hypertension, severe mitral regurgitation and atrial fibrillation, was admitted to hospitalization because of two weeks of dyspnea and chest pain; without fever, weight loss, cough, or hemoptysis. CT revealed a left upper lung lobe mass with bilateral pulmonary nodules, suggesting malignancy, and incidental pancreatic body thickening. Laboratory tests only showed elevated C-reactive-protein (125 mg/L). Tumor markers, HIV and tuberculin test were negative. In the absence of expectoration, fiberoptic bronchoscopy was performed with negative microbiological and cytological study in BAL/BAS. The histological report of the lung mass biopsy described a caseating granulomatous inflammation highly suggestive of tuberculosis. Histochemical Ziehl-Nielsen study shows an acid-fast bacilli. Isoniazid, rifampicin, pyrazinamide and ethambutol were started. MRI revealed a 26x26x25mm pseudonodule in the pancreatic body. Two digestive echoendoscopies were performed for sample collection, with negative cytology and microbiological study. A control CT two months later showed resolution of the pulmonary nodules and improvement of the main pulmonary and pancreatic lesion.
Clinical Hypothesis: We present the diagnostic challenge of a case of tuberculosis with pulmonary and pancreatic involvement.
Discussion and Learning Points: Pancreatic tuberculosis is a very rare entity that can resemble pancreatic cancer. Abdominal CT could be useful for diagnosis, but there are no distinguishing features between tuberculosis and pancreatic cancer. Endoscopic ultrasound provides high-resolution images and the possibility of sampling lesions. In our case, the cytological and microbiological study of the pancreatic sample could have been a false negative due to being under tuberculostatic treatment, however the response observed in CT strongly supports the diagnosis.

2464 / #EV0758

POTT DISEASE, A STILL PRESENT FORM OF TUBERCULOSIS

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Case Description: A 29-year-old man from Bangladesh, with no significant personal history, was attended in hospital for a 4 months' painful and lumbar mass. He did not associate fever, weight loss or other symptoms. Laboratory tests were unremarkable except for a high serum adenosine-deaminase. CT scan revealed a 14x12x6cm right lumbar abscess extended to both psoas muscles, and involvement of T10-T11 vertebrae with spondylodiscitis signs. Puncture and drainage of the lumbar abscess was performed, with a positive microbiological study for *Mycobacterium tuberculosis* by Polymerase-Chain-Reaction, susceptible to rifampicin (culture not available). HIV infection was ruled out. Rifampicin, isoniazid, pyrazinamide and ethambutol were started. He also received orthopedic treatment with a lumbar corset, and he was discharged assisted by a Red Cross program for Directly-Observed-Treatment with good treatment adherence. Induction treatment was extended to 4 months because of persistence of significant lumbar involvement. He's

 DOI: 10.12890/2022_V9Sup1

currently undergoing consolidation treatment and evaluation by the Spine-Unit with favorable evolution.
Clinical Hypothesis:
We present a case of Pott's disease with multidisciplinary management: medical, surgical, orthopedic and social.
Discussion and Learning Points: Pott's disease is an infrequent form of tuberculosis, usually affecting young immigrant patients from endemic areas. It's seen more frequently in patients with HIV coinfection. Spinal involvement accounts for 1-3% of tuberculosis and is the most common extrapulmonary form. It usually presents with a subacute course. The most feared complication is the spinal cord compression and paraplegia. Multidisciplinary assessment with a team specializing in infectious diseases, surgery, traumatology (spine unit) and social assistance is essential to facilitate pharmacological and orthopedic compliance.

633 / #EV0759

FECAL MICROBIOTA TRANSPLANTATION IN A PATIENT WITH RECURRENT CLOSTRIDIOIDES DIFFICILE COLITIS

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Case Description: A 63-year-old male, bed-confined due to multiple sclerosis, presented with diarrhea, fever, hypotension, obnubilation and elevated inflammatory markers. Recent history was remarkable for four hospital admissions in a four-month period due to acute infections, completing a total of seven different pathogen-directed antibiotic courses; in the latter two hospitalizations, clostridioides difficile infection (CDI) was diagnosed and treated with vancomycin and metronidazole.
Clinical Hypothesis: Recurrent CDI.
Diagnostic Pathways: Assuming a second relapse, with a positive *C. difficile* toxin immunoassay test, a new course of metronidazole and vancomycin in tapered and pulse-dose regimen was reinstated. After clinical consideration and discussion with the patient, this treatment course was discontinued and fecal microbiota transplantation (FMT) from a healthy donor was performed via nasogastric tube, with clinical improvement and no more relapses in an 18-month follow-up.
Discussion and Learning Points: Persistent diarrhea is a common clinical occurrence in hospitalized patients who have been exposed to one or more antibiotic regimens. Presentation is usually mild, dose-related and resolves spontaneously after antibiotic discontinuation. In case of persistence or relapse, specific laboratory evaluation and treatment is required. *C. difficile* is the main responsible for antibiotic-associated colitis, identified in up to 25% of stool examination and can develop fulminant disease, requiring urgent and effective treatment. The approach to recurrent CDI has evolved. The first relapse usually responds promptly to a second course of the antibiotic regimen used initially, but FMT, via colonoscopy or nasogastric tube, has emerged specially for uncontrolled cases being more cost-effective, with better results in disease remission when compared to a new vancomycin course.

2085 / #EV0760

LACTOCOCCUS GARVIEAE INFECTIVE ENDOCARDITIS

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Case Description: We present the case of a 67-year-old frail man with a history of mitral biologic valve replacement presented with fever and weight loss with two months of evolution.
Clinical Hypothesis: Given the symptoms presented and the history of mitral biologic valve replacement, we consider the clinical hypothesis of infective endocarditis.
Diagnostic Pathways: Blood cultures identified *Lactococcus garvieae*. A transesophageal echocardiogram documented mitral valve vegetation. He was found to have *Lactococcus garvieae* infective endocarditis with septic embolic strokes identified in brain magnetic resonance. Cardiothoracic surgery was deemed too high risk. Therefore, the patient completed 6 weeks of intravenous antimicrobials. Also prolonged inpatient rehabilitation was preconized.
Discussion and Learning Points: *Lactococcus garvieae* is considered an emerging zoonotic opportunistic pathogen in humans since modern laboratory technologies improved identification. Human infection typically occurs in the elderly or immunocompromised hosts and can be associated with the consumption of raw fish. Our patient did not relate to this situation so it is hypothesised that *Lactococcus garvieae* was acquired through contaminated food ingestion and entered the bloodstream through the gastrointestinal tract. In fact, our patient had recently undergone a colonoscopy that showed colonic polyps, which have been linked to infection with this organism.

2095 / #EV0761

HERPETIC ESOPHAGITIS

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Case Description: We present the case of a 74-year-old man with various comorbidities, namely type 2 diabetes mellitus, dyslipidemia, diabetic nephropathy, ischaemic heart disease, atrial fibrillation and prostate adenocarcinoma under surveillance. He was hospitalized with a lower respiratory tract infection causing

 DOI: 10.12890/2022_V9Sup1

sepsis, under empirical antibiotic therapy with gradual clinical improvement. At the end of the treatment, he presented fever resurgence and refusal to eat. Oropharyngeal ulcers and intense odinophagia with heartburn were of note.
Clinical Hypothesis: Given the symptoms presented in immunocompromised patient, we considered the clinical hypothesis of herpetic esophagitis.
Diagnostic Pathways: The patient underwent upper digestive endoscopy that showed multiple ulcerated lesions from the tongue to the distal oesophagus. The immuno-histochemistry examination of the biopsies performed showed multinucleated cells with enlarged nuclei with pseudo inclusions. Serologies showed anti-Herpes Simplex 1 positive IgG. Negative HIV status. Intravenous acyclovir was started with clinical improvement.
Discussion and Learning Points: Herpetic esophagitis, caused by the Herpes Simplex virus, is a common opportunistic infection in immunocompromised or severely ill patients. It should be considered whenever a patient presents odinophagia, fever and heartburn. A high degree of suspicion and prompt endoscopic evaluation are necessary for diagnosis. Severity ranges from mild self-limited course to perforation and hemorrhage. Treatment is supportive care, but early treatment with acyclovir seems to accelerate the resolution of symptoms.

1342 / #EV0762

SWEET SYNDROME TRIGGED BY SPOROTRICHOSIS

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Case Description: ìA 49-years-old woman with a history of gouty arthritis, reported being scratched by a cat in her hands. The lesion developed sporotrichosis, treated by self-medication with topical itraconazole with partial injury improvement. After forty days, she manifested arthralgia in her knees, ankles and feet, fever, chills and erythematous, painful, warm, nodular lesions on both legs. She also presented partial healed lesion in the second finger on both hands in the initial site of the cat's scratches. Lesions biopsy showed neutrophilia, dermatosis and suppurative granuloma, compatible with deep mycosis and Sweet syndrome (SS) secondary to sporotrichosis. Treatment was carried out with oral prednisone 30mg/day for six weeks and oral itraconazole 100 mg/day for a month, with significant clinical improvement.
Clinical Hypothesis: Sporotrichosis, sweet's syndrome, collagenosis, erythema multiforme.
Diagnostic Pathways: Skin lesion biopsy.
Discussion and Learning Points: Sweet syndrome is a rare disorder characterized by cutaneous nodules, that presents neutrophilic dermatosis in biopsy. Also, it may affect internal organs and constitutional manifestations such as fever, adynamia, arthralgia and myalgia. The pathogenesis is not well understood, but it is already known that there is a hypersensitivity reaction that may be associated with cancer, drugs and infections in general, where inflammatory mediators seem to be related. In this case report the SS has been trigged by inoculation of the sporothrix fungus through the skin, in Brazil, usually associated with cat scretches. Sporotrichosis presents initial involvement at the site of the traumatic injury, which may extend to the proximal lymphatic chain. The case reported presents a rare association described in the literature, SS mediated by sporothrix fungus.

2412 / #EV0763

SEVERE TUBERCULOSIS INFECTION DURING PUERPERIUM IN PREVIOUSLY HEALTHY PATIENT

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Case Description: A 20-year-old, previously healthy patient, gave birth to her first child in November 2021, and started with cough, dyspnea, weight loss, tachycardia and fever in December 2021. She was admitted to the hospital on 01/24/2022, when multiple exams were performed. Sputum test positive for tuberculosis, 2 negative HIV tests. Chest tomography showing extensive pulmonary involvement, occupying almost the entire left lung and the upper lobe of the right lung. After three weeks of isoniazid-rifampin-pyrazinamide-ethambutol treatment, there was improvement of dyspnea, cough and fever, but maintaining significant tachycardia and extensive involvement in radiological image. Hospital discharge was granted to continue treatment at home, with outpatient return. Testing of the infant child and the rest of the family came out negative. The patient was allowed to breastfeed.
Clinical Hypothesis: Tuberculosis.
Diagnostic Pathways: Sputum test and chest tomography were performed, both compatible with tuberculosis.
Discussion and Learning Points: This case raised doubts about the increased risk of tuberculosis in pregnant and postpartum women. A review of the literature was performed and data showed that this increased risk may be associated with immunological changes during pregnancy that favor an opportunity for infection by the tuberculosis agent or activation of latent infection. Health professionals usually do not suspect tuberculosis in pregnant women due to its nonspecific symptoms, which makes considerable delay in the diagnosis. It is therefore necessary to rethink ways to strengthen the identification and notification of tuberculosis in this group so that we can direct a closer look at these women and reduce the negative effects on the mother-child binomial.

 DOI: 10.12890/2022_V9Sup1

2587 / #EV0764

THE HEART NEEDS SOME HELP

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Case Description: A 61-years old man with a teeth cleaning six weeks ago consults for fever and chills. A non-known holosystolic murmur appears in the aortic foci. Inflammatory parameter are elevated tests and neither the thoracic X-ray nor the urine analysis are pathologic. Blood and urine cultures are extracted. Empirical treatment with ceftriaxone and vancomycin is started.
Clinical Hypothesis: An infective endocarditis is considered.
Diagnostic Pathways: *Streptoccoccus viridan*s is isolated on blood cultures thus vancomycin is stopped. Hypogammaglobinaemia was discovered, without other blood parameter abnormalities. A transesophageal echocardiogram reveals an unstructured and degenerated bicuspid aortic valve with a nodular image adhered to the left coronary valve thus provoking a severe restriction of blood flow. An abdominal computed tomography does not show evidence of distant disease. Fever persists and the patient suffers from a sudden clinical decline. A new transesophagic echocardiogram shows a periannular abscess in the mitral-aortic intervalvular fibrosa. Aortic valve substitution and septum reparation is done. Same microorganism isolated on blood culture is isolated in the papillary muscle culture. On postsurgical period requires vasoactive drugs and substitutive renal therapy with oxiris filter for haemodynamic stabilization. He is put on discharge after six weeks of the first negative blood cultures.
Discussion and Learning Points: Infective endocarditis usually occurs on patients after a teeth manipulation, more frequently in those who present some degree of immunosuppression. It can be complicated with abscess formation thus requiring even surgical procedures. Haemodynamic stability must be preserved even with the employment of advanced therapies.

1764 / #EV0765

DIFFERENTIAL DIAGNOSIS OF LOW CONSCIOUSNESS LEVEL IN HIV POSITIVE

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Case Description: A 56-year-old man with a history of HIV / HBV who attended the emergency room due to vomiting, associating zero oral tolerance of 10 days of evolution. He associates constitutional symptoms, loss of more than 15kg in 4 months, and occasional headache. The patient acknowledges voluntary abandonment of antiretroviral treatment (ART) 4 years ago and denies drug use. The patient is admitted due to possible reactivation of HBV in an immunosuppressed patient.
During admission, reactivation of HBV was observed, as well as marked immunosuppression, finding the patient with 40 CD4. During a routine visit, after initiating ART, the patient is discovered illegally purchasing methadone. After starting supply of the same from the hospital pharmacy, the patient begins a confusional picture with a low level of consciousness.
Clinical Hypothesis: Low counciosness level was initially attributed to the change in opioid dose, on suspicion of abuse by the patient. After fever peak and clinical worsening, opportunistic vs. nosocomial infection is suspected.
Diagnostic Pathways: Multiple microbiological cultures are performed (blood cultures, urine cultures), new imaging tests and finally lumbar puncture, obtaining positive microbiological results for *Cryptococcus neoformans*. Given the findings, treatment with intravenous amphotericin B and oral flucytosine was started, with poor response.
Discussion and Learning Points: Cryptococcosis is a serious, opportunistic fungal disease caused by *Cryptococcus neoformans*, an encapsulated yeast fungus. After inhalation of the microorganism, an initial lung infection occurs, from where there is dissemination to other organs, with meningeal involvement being especially frequent. Cryptococcosis most often affects immunosuppressed people, especially patients with stage AIDS.

868 / #EV0766

PARVOVIRUS B19 - A STRANGE CASE OF PANCYTOPENIA

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Case Description: Male of 86 years old, brought from a nursing home to the Urgency Room with rectal bleeding and melena, denying other symptoms. In the physical exam, he had petechiae scattered though his body and continued having black stools. His initial blood panel showed severe pancytopenia with microcytic hypochromic anemia (62 g/L), leukopenia (3x109/L) and thrombocytopenia (6x109/L).
Clinical Hypothesis: Aplastic anemia, myelodysplastic syndrome, B12 or folic acid deficiency, leukemia, lymphoma, metastatic carcinoma, tuberculosis, Epstein - Barr virus, hepatitis, parvovirus, autoimmune diseases and idiopathic.
Diagnostic Pathways: The blood tests revealed positive IgG and IgM antibodies for parvovirus B19. No alterations in coagulation and negative for other virus. Bone marrow biopsy without any alterations. Protein electroforesis with policlonal gammopathy.
Discussion and Learning Points: The infection with parvovirus B19 is usually asymptomatic but there are a range of symptoms depending of the age and overall health, such as arthralgias, arthritis, leukopenia and thrombocytopenia, anemia and vasculitis, spontaneous abortion and hydrops fetalis in pregnant women, and it can also trigger various forms of autoimmune diseases. After the institution of the treatment (with blood transfusion, Intravenous immunoglobulin therapy and prednisolone), the

 DOI: 10.12890/2022_V9Sup1

patient progressively normalized the levels of the 3 blood series. With this case the authors want to highlight the importance of the screening for parvovirus in the diagnosis of a pancytopenia, and that is associated, among other conditions, with the triggering of aplastic crises of variable morbidity in patients with chronic hematologic diseases.

877 / #EV0767

LYME'S DISEASE – STRANGE CASE IN THE AREA

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Case Description: 54 year old male, with no relevant personal history, entrepreneur in the doe business, with a dog and has sporadic contact with sheep and chickens. Initially admitted to the Urgency Department, for arthralgias and exanthema, being medicated with amoxicillin/clavulanic acid, without improvement. He comes back 6 days later, and is admitted with fever, migratory polyarthralgia and rash.

Clinical Hypothesis: Mediterranean spotted fever, Idiopathic arthritis, reactive arthritis or rheumatoid arthritis, rheumatic fever

Diagnostic Pathways: Fever, 39.2ºC, maculopapular rash, dispersed in the lower and upper limbs, non-pruritic and evanescent with digital pressure; no cutaneous evidence of an insect bite. No neurological deficits, Normal cardiopulmonary auscultation, Small and large articulations without inflammatory changes, painless to pressure and without limitation of mobility. Blood test: Leukocytosis 10.9 x 109/L; Neutrophilia 88.1%; PCR 351 mg/L; VS 77 mm/h POSITIVE Antibody IgM anti – *Borrelia burgdorferi*; Negative IgG anti - *Borrelia burgdorferi;* No other relevant changes in blood count, biochemistry, rheumatoid factors and autoimmunity antibodies. Other serologic tests (HIV, *Treponema*, *Rickettsia*): negative.

Discussion and Learning Points: Medicated with doxycycline, for 24 days, with clinical and analytical improvement. Although the area of residence is not considered an endemic area for Lyme's Disease, this case demonstrates the importance of including it as a differential diagnosis for similar clinical situations.

1824 / #EV0768

WOMAN WITH NODULES IN LOWER MEMBERS

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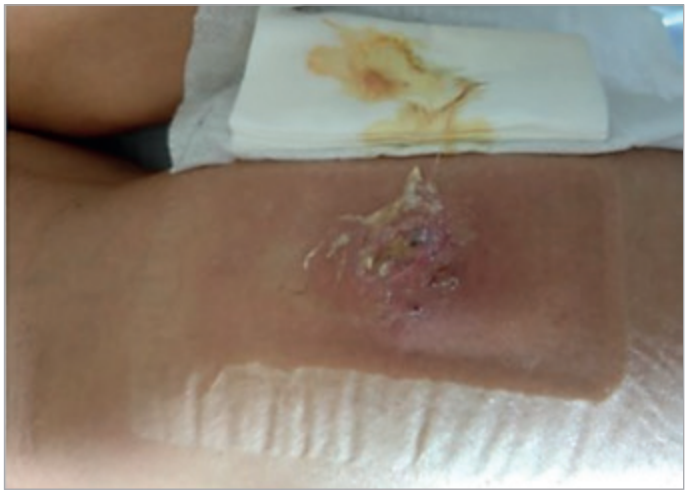
Case Description: 51-year-old woman, with no relevant personal history, admitted to the presence of two warm and erythematous lesions in the left calf and left knee accompanied by fever for 2 months. She denied local trauma and insect bites. Physical examination revealed a temperature of 37.8ºC together with the presence of two lesions in the left lower limb and the palpation of multiple inguinal adenopathies. Laboratory tests (including immunological and serological studies) was unremarkable (Figure).

Clinical Hypothesis: Before the appearance of subcutaneous nodular lesions, the differential diagnosis between an inflammatory, infectious and neoplastic origin should be planned initially. The symptoms of fever and the purulent appearance of the lesions suggested an infectious origin.

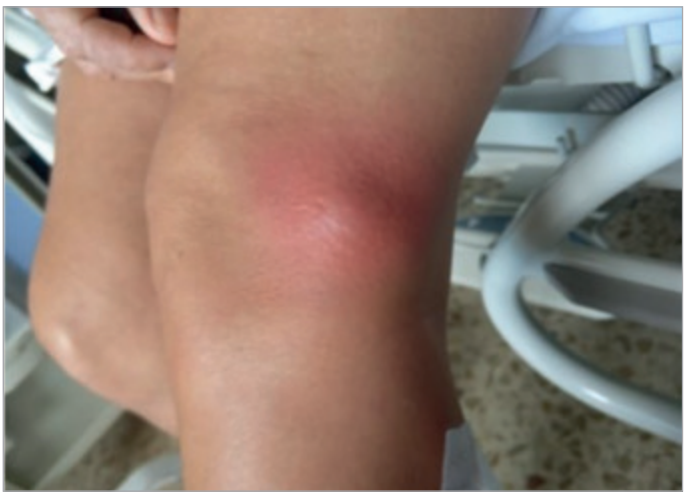
Diagnostic Pathways: Chest-abdominal-pelvic CT scan reported the presence of non-significant left inguinal lymphadenopathy. Subsequently, the study was completed with a head MRI, which was normal, and a biopsy of the left knee lesion that led to the final diagnosis of primary cutaneous nocardiosis due to *Nocardia brasiliensis*.

Discussion and Learning Points: Cutaneous nocardiosis is a rare infectious disease, typical of immunosuppressed patients, caused by *Nocardia*, which is found in decaying vegetation and stagnant waters. Its infection occurs by direct inoculation or by inhalation. It can manifest as a primary skin infection or as a disseminated disease (mainly involving the lung and central nervous system). Primary cutaneous nocardiosis represents 5% of infections caused by *Nocardia*, being endemic in South American countries, usually in relation to skin trauma. In conclusion, an infrequent case of nocardiasis is described in an immunocompetent patient without a history of cutaneous trauma.



#EV0768 Figure 1.

 DOI: 10.12890/2022_V9Sup1



#EV0768 Figure 2.

1773 / #EV0769

A CASE OF FEVER WITH PNEUMONITIS AND HEPATITIS: NO, IT WAS NOT COVID-19

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Case Description: A 62-year-old Greek greengrocer was admitted to our hospital due to persistent fever and dry cough. He was already hospitalized for a community-acquired pneumonia with marked leukocytosis, elevated inflammatory markers/transaminases and hypoxemia and received a 5-day course of amoxicillin-sulbactam, followed by 2 days of ceftaroline IV. He was discharged with amoxicillin-clavulanate po for 10 days, when he became febrile again.

Clinical Hypothesis: Q fever is caused by *Coxiella burnetii*, a bacterium that affects humans and animals. Clinical manifestations include flu-like syndrome, pneumonia, endocarditis or meningitis. Diagnosis is performed mostly with serological methods. Herein, we present an interesting case of subacute Q fever as a cause of prolonged fever with simultaneous lung and liver involvement.

Diagnostic Pathways: The patient was febrile, unresponsive to nsaids, while his physical examination was unremarkable apart from hepatomegaly. Blood chemistry revealed leukocytosis (WBCs 13.110/μl), highly elevated inflammation markers (crp 205 mg/l, ferritin 2500 ng/ml, fib 970 mg/dl). No pathogen was isolated in multiple blood cultures and urine samples. Multiple SARS-CoV-2-PCR testing was negative, as well as Mantoux, HBV, HCV, HIV, CMV Abs. Liver ultrasound revealed hepatomegaly, while full body-CTs were unremarkmable. Liver biopsy showed no hemophagocytosis and pathogen- or toxin-induced hepatitis in remission. The patient showed spontaneous fever remission 10 days later. Serological testing revealed positive IgG phase II antibodies (title 1:256) for *C. burnetti*.

Discussion and Learning Points: Q fever can manifest with a variety of clinical findings. Higher clinical suspicion is needed in patients with prolonged fever.

575 / #EV0770

PSEUDOMONAS AERUGINOSA INFECTIVE ENDOCARDITIS PRESENTING WITH AN UNEXPECTED EVOLUTION

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Case Description: A 50-year-old white male presented at the emergency department with fever and prostration. Medical history of injecting drug use and hepatitis C, without chronic medication. At admission: sarcopenic, confused, feverish and hypotensive; heart auscultation with an aortic diastolic murmur; without heart failure symptoms.

Clinical Hypothesis: Endocarditis; central nervous system infection; other fungal/bacterial infections

Diagnostic Pathways: Analytically: Hemoglobin 11 g/dL, Leukocytes 11.5x109/L, Platelets 20x109/L, BNP 679 mg/dL, PCR 20 mg/dL. The echocardiogram showed severe depression of LVEF and aortic valve (AoV) vegetation causing major insufficiency. Cerebral CT scan showed cerebellar and parieto-occipital hypodensities. Native AoV endocarditis with cerebral embolization was presumed and antibiotic treatment was initiated with vancomycin and gentamicin, changed to piperacillin/tazobactam and gentamicin following *Pseudomonas aeruginosa* (Pa) isolation in blood cultures. Transesophageal echocardiogram showed AoV vegetation and eccentric regurgitation causing moderate-severe insufficiency and mitral valve vegetations causing mild insufficiency. After 15 days, due to piperacillin/tazobactam resistance, treatment with meropenem was initiated. Clinical improvement occurred, without neurological deficits. The echocardiographic evaluation showed LVEF 48%, small AoV vegetation without eccentric regurgitation. The patient was accepted for cardiac surgery after 6 weeks of combined antibiotic therapy.

Discussion and Learning Points: Endocarditis caused by Pa is uncommon, usually associated with injecting drug use and the absence of structural cardiac disease. It presents high mortality, requiring prolonged treatment and, in general, surgical intervention. The tricuspid is the most affected valve in endocarditis associated with injecting drug use. In this case, left valve involvement occurred, which usually requires early surgical treatment given the poor prognosis. However, medical therapy for two months resulted in clinical and echocardiographic improvement.

DOI: 10.12890/2022_V9Sup1

1751 / #EV0771

GASTROINTESTINAL GRANULOMAS: A WHIPPLE'S DISEASE PRESENTATION

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Case Description: We present a case of a 54-year-old male with previous medical history significant for a presumptive disseminated mycobacteriosis in 2017. The agent was not identified, but there was evidence of non-caseous granulomas in liver and duodenum biopsies, empirically treated with isoniazid, ethambutol, pyrazinamide and rifampicin. The patient presented to our emergency department with a 2-week history of worsening chronic watery diarrhea, as well as abdominal pain and weight loss. On physical examination he had abdominal diffuse pain, inguinal lymphadenopathies as well as nystagmus.
Clinical Hypothesis: Since Portugal presents a high incidence of tuberculosis, and considering the patient's past medical history, intestinal tuberculosis was the most likely diagnosis. However, while trying to exclude other granulomatous causes for diarrhea, a blood PCR test for *Tropheryma whipplei* was positive.
Diagnostic Pathways: An upper endoscopy and a ganglion biopsy confirmed the aforementioned diagnosis. Testing for *Tropheryma whipplei* in CSF was negative. Despite that, the patient was treated with ceftriaxone for 2 weeks (presuming central nervous system involvement) and trimethoprim-sulfamethoxazole for one year, resulting in complete resolution of the diarrhea, abdominal pain and weight stabilization.
Discussion and Learning Points: Whipple's disease is a multisystemic infection that usually affects middle-aged white men. It typically presents with fever, polyarthritis, diarrhea, steatorrhea, and weight loss. The differential diagnosis includes chronic multisystemic infections and granulomatous disorders. Early diagnosis of Whipple's disease leads to earlier treatment and hopefully the prevention of chronic disabling complications and needless mortality from this once uniformly fatal condition.

2318 / #EV0772

WHEN YOU DRINK MORE THAN YOU PAID FOR

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Case Description: A 52-year-old man was initially admitted to general surgery ward due to suspected acute cholangitis where piperacillin/tazobactam was started, but after 7 day course fever persisted. Thus, collaboration of Internal Medicine (IM) was requested. IM evaluation found that the patient had arrived from Angola 14 days prior. He mentions past history of malaria and typhoid fever. Examination didn't reveal any alterations specifically no cardiac murmurs or skin lesions, he was hemodynamically stable but had daily peaks of fever. Lab results: slight elevated liver transaminases and bilirubin, normal INR and albumin; negative blood and urine cultures. No significant alterations in thoracic-abdominal-pelvic CT scan.
Clinical Hypothesis: Based on this a zoonotic disease was suspected.
Diagnostic Pathways: Therefore following were requested: thick drop, VDRL, viral serologies (ABCD; HIV; CMV; EBV), zoonoses serologies, Chlamydia and Mycoplasma. All results were negative, but some were pending: Rickettsiosis, *Borrelia*, *Leptospira* and *Mycoplasma*. In the meantime, empirical doxycycline 100mg/bid and ceftriaxone 2g/od were started. The patient was discharged after major improvement on the 4th day of antibiotics. Upon re-evaluation, after 14 days of antibiotic treatment, he was asymptomatic. The results of the pending serologies confirmed positive IgM for Leptospirosis. The possible source of contamination may have come about from drinking canned beer purchased in the street markets in Angola.
Discussion and Learning Points: Leptospirosis is a disease that can have serious consequences on the host, although infrequent, it should be excluded when the cause of fever is unknown, especially when epidemiologic situations are suspected.

314 / #EV0773

NEUROSYPHILIS WITH MENINGEAL PRESENTATION

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Case Description: A 52 years-old male was admitted to the emergency department with intense headache, disorientation and altered consciousness. He was febrile, prostrated and had meningeal signs. The cranial computed tomography scan did not show any alteration. Lumbar puncture was traumatic and showed many erythrocytes, severe pleocytosis (4,900 cells with polymorphonuclear predominance) and 453 mg/dL proteins. The blood sample showed leucocytosis 14.0x109/L, neutrophilia 83% and PCR 19 mg/dL. HIV serology was negative. The patient started antibiotherapy with ceftriaxone and ampicillin.
Clinical Hypothesis: Bacterial meningitis.
Diagnostic Pathways: Revising the anamnesis, he had risky sexual behaviours and was diagnosed with latent syphilis of unknown duration two years before this neurological presentation. By that time, he was treated with only one intramuscular injection of penicillin. Lumbar puncture was repeated in the nursery and showed pleocytosis (194 cells with mononucleated predominance), 69 mg/dL proteins, positive TPHA and reactive

 DOI: 10.12890/2022_V9Sup1

VDRL (titre 1:14). Central spinal fluid and blood cultures were negatives. He started treatment with benzylpenicillin sodium 4 million units every 4 hours for 14 days with complete resolution of the symptoms. Lumbar puncture was repeated 6 months after the treatment showing complete resolution of pleocytosis and non-reactive VDRL. The patient remained asymptomatic.
Discussion and Learning Points: The case shows the importance of suspecting of neurosyphilis towards acute meningitis in patients with risky sexual behaviours. Although the patient was HIV negative, making the diagnosis of neurosyphilis more unlikely, the revised clinical history revealed a mistreated diagnosis of latent syphilis, favouring this hypothesis. CSF-VDRL is specific for neurosyphilis but is frequently absent, making neurosyphilis a challenging diagnosis.

1002 / #EV0774

EPILEPSY DUE TO NEUROCYSTICERCOSIS

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Case Description: Neurocysticercosis is a form of the infectious parasitic disease cysticercosis that is caused by Taenia solium. The disease is endemic from Latin America, India, Asia and Africa. The authors present a case of a 48-years old woman, from Angola, with no medical records who referred multiples episodes of temporary loss of consciousness with one-year evolution. The patient was evaluated in a private consultation of cardiology and performed multiple ekg, holter and echocardiogram which were normal. She was admitted to the emergency department after an episode of tonic-clonic seizures. She was hemodynamically stable and had no fever, she presented slow resolution of the crisis and showed clouding of consciousness with no other neurological symptom. The cranial computed tomography scan showed numerous hypodense focal lesions with well-defined borders, with an hyperdense focus in the interior, suggesting calcification, dispersed in both hemispheres. Some of the lesions had peripherical oedema. The cerebrospinal pathways had normal shape and dimensions. This image suggested an infectious parasitic disease. The cranial MRI also showed signs of infectious parasitic disease.
Clinical Hypothesis: Neurocysticercosis.
Diagnostic Pathways: The patient started therapy with dexamethasone and levetiracetam and then albendazole and praziquantel. She had good evolution with resolution of the symptoms. The clinical presentation and the CT scan established the diagnosis of neurocysticercosis. She was referred to our infectious diseases consultation waiting for the results of antibodies against cysticerci in cerebrospinal fluid and serum.
Discussion and Learning Points: Epilepsy due to neurocysticercosis is common and the diagnosis should be suspected in patients from endemic areas that develop neurological symptons.

2620 / #EV0775

PROSTHETIC JOINT INFECTION IN A TERTIARY REFERRAL HOSPITAL: A DESCRIPTIVE STUDY.

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Background and Aims: The prosthetic joint infection is a rising issue.Our goal is to analyze data related to 40 patients with prosthetic joint infection that have been diagnosed in our center.
Methods: A descriptive and retrospective observational study has been carried out with data collected from patients who prosthetic joint infection was observed during the years 2017and 2018.
Results: Out of the 40 patients analyzed, 42.5% of the cases presented early infection, in which *S.aureus* (52%) and Coagulase-negative Staph were isolated;while 57.5% were classified as late infection, and *Corynebacterium* and Coagulase-negative Staph being isolated in cultures.62% of the cases were treated with a strategy of surgical debridement and implant retention (DAIR) and 20% with a two-stage revision strategy. Regarding the antibiotic therapy, the patients treated with the DAIR strategy were treated for a median of 9.2 weeks and those individuals treated with two-stage revision were treated for a median of 42-week, not being able to specify the specific time of treatment after the second stage surgery. Rifampicin was associated with treatment in 53% of cases and success was not significant. Therapeutic success after 24 months was confirmed in 52% of cases. A relationship between therapeutic failure and the previous presence of multiresistant bacteria was obtained with p=0.028 (Table).
Conclusions: Early diagnosis is very important in the event of a prosthetic joint infection. Many ongoing clinical trials are focused on the reduction of treatment time in order to achieve just 6 weeks after DAIR. However, there are not enough reports about the duration of treatment after two-stage revision with a greater precision.

	Total	DAIR	Two-stage R	Microbiology	Rifampin added	Treatment success
Early PJI	17	100%	0%	MSSA	58.8%	58.8%
Late PJI	23	34%	66%	CoNS	47.8%	47.8%

#EV0775 Table 1.

DOI: 10.12890/2022_V9Sup1

1117 / #EV0776

PARAPARESIS AS THE FIRST MANIFESTATION OF TUBERCULOSIS – THE ROLE OF ANAMNESIS

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Case Description: A 47-year-old male, born in Angola, living in Portugal for 1 year, with no significant medical history, presented in our emergency care a 3-month history of low back pain and progressive flaccid simmetric paraparesis with paresthesia. Significant weight loss was found. He had no night sweats, fever, or other organ or system complaints. His laboratory tests reaveled C-reactive protein 2.29 mg/dL. Lumbar tomography showed osteolytic lesions associated with a soft tissue mass, causing destruction of the L4-L5 vertebral bodies, suggesting plasmacytoma or secondary lesion. Lumbar MRI showed L4-L5 bilateral intraforaminal extension, afeccting respective nerve roots, and anterior epidural intracanal mass with deformation of the ventral face of the thecal sac.

Clinical Hypothesis: Plasmacytoma, secondary lesion, tuberculous spondylitis (Pott's disease), sarcoidosis.

Diagnostic Pathways: Etiological study was performed, reaveling HIV and ACE negative, positive IGRA, normal proteinogram and immunofixation, normal serum and urinary light and heavy chains levels, normal prostate-specific antigen, normal body CT, upper digestive endoscopy, colonoscopy, thyroid echography and bone marrow study. After proceding a lumbar mass biopsy, patient started dexamethasone, with clear symptomatic improvement. On the 16th day, the biopsy culture was positive for M. tuberculosis, and the patient underwent treatment with antituberculosis drugs.

Discussion and Learning Points: The authors highlight this case for the relevance of anamnesis in clinical suspicion for the diagnosis of tuberculosis. A case of a patient with a previous infection or from an endemic area should be an alarm for tuberculosis reactivation. A positive IGRA can support this diagnosis. Upon suspicion, treatment should not be delayed by microbiology.

166 / #EV0777

A UNIQUE CASE OF SCRUB TYPHUS MIMICKING HERPES SIMPLEX VIRUS ENCEPHALITIS

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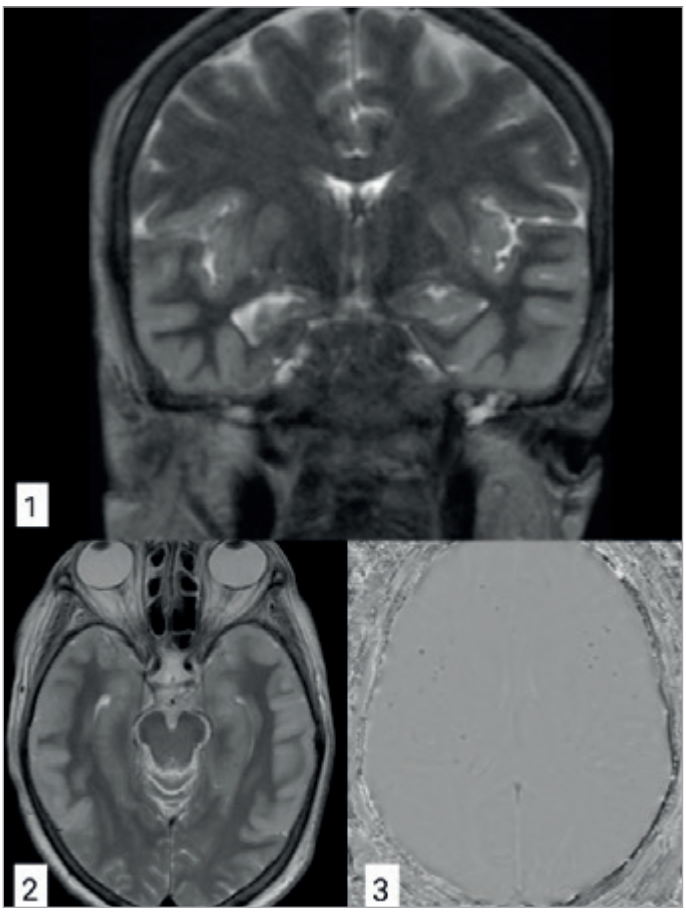
Case Description: A 71-year-old lady, presented with acute onset intermittent moderate grade fever, decreased urine output and insidious onset, gradually progressive, non-fluctuant altered mental status, associated with a single episode of right-sided focal seizure. On examination, right-sided gaze preference was present with mute plantar reflexes. Other systems examination was unremarkable

Clinical Hypothesis: On the basis of history, physical examination and regional prevalence, a few differentials were thought of 1) Viral meningoencephalitis, 2) Scrub Typhus, 3) Leptospirosis and 4) Malaria

Diagnostic Pathways: A workup for tropical illnesses was sent. Cerebrospinal fluid analysis indicated polymorphonuclear leucocytosis with increased protein and decreased glucose levels. On apparent diffusion coefficient maps, magnetic resonance imaging of the brain with angiography revealed bilateral temporal and insular hyperintensities with edema and diffusion restriction. Multiple blooming foci were seen in the temporoparietal area, with a negative signal on filter phase indicating microhaemorrhages (Figure 1). The Scrub IgM ELISA test resulted in a positive result, with a negative workup for other illnesses, confirming the diagnosis of Scrub Typhus.

Discussion and Learning Points: Scrub typhus is an endemic disease in tropical countries. Clinical symptoms range from self-limiting acute febrile illness to fatal non-specific complications such as meningoencephalitis and multi-organ failure. Our patient exhibited severe febrile sickness, other nonspecific symptoms, and a positive IgM ELISA for scrub typhus in this case, but the MRI was erroneously suggestive of HSV encephalitis, which was our major differential. Therefore, scrub typhus is a heterogeneous entity with variable clinical and imaging findings warranting a comprehensive clinico-radiological correlation.

 DOI: 10.12890/2022_V9Sup1



#EV0777 Figure 1.

1358 / #EV0778

INVASIVE PNEUMOCOCCAL DISEASE AND SARS-COV-2 INFECTION: A RARE CASE OF COINFECTION

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Case Description: A 72-year-old male with multiple morbidities (diabetes, chronic liver disease, chronic renal disease and chronic lung disease) and no history of pneumococcal vaccination presented with productive cough, dyspnea and mental confusion. He was afebrile, presented no signs of respiratory distress and had hypoxemia.
Clinical Hypothesis: Pneumonia.
Diagnostic Pathways: Blood examination showed leucocytosis with neutrophilia, high C-reactive protein (30.3 mg/dL) and procalcitonin (15.4 mg/dL). SARS-CoV-2 RNA was detected in nasopharyngeal swab (real-time polymerase chain reaction). Thoracic computed tomography scan showed no signs of SARS-CoV-2 pneumonia and revealed parenchymal condensation on the right lower lobe consistent with bacterial pneumonia for which ceftriaxone and azithromycin were started. During the in-hospital stay he developed suppurative otitis media. *Streptococcus pneumoniae* (*S. pneumoniae*) was isolated in blood cultures leading to the diagnosis of invasive pneumococcal disease. Antibiotics were switched to benzylpenicillin according to antimicrobial sensitivities. No vegetations were found on heart ultrasound. The patient completed 8 weeks of antibiotics.
Discussion and Learning Points: Coinfection with SARS-CoV-2 and *S. pneumoniae* is rare and associated with higher case fatality than either of the conditions manifesting alone. Radiological pattern of COVID-19 can be indistinguishable from that of pneumococcal pneumonia. Clinicians should be aware of the possible SARS-CoV-2-pneumococcus association to avoid misdiagnosis and delay antibiotic therapy. There is no clear guidance on the screening of *S. pneumoniae* and other common agents of respiratory infection on COVID-19 patients. This case highlights the importance of microbiological diagnostic testing, such as urinary antigens for S. pneumoniae alongside blood cultures. Emphasis is also placed on pneumococcal vaccination for aged and higher risk subjects.

2459 / #EV0779

WHICH ARE THE CHARACTERISTICS OF OUR PATIENTS WITH DIABETIC FOOT ULCER?

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Background and Aims: Diabetic foot is a complication of diabetes with high prevalence in our country. The management of the disease includes glicemic control, wound care, surgery and empiric antibiotherapic treatment when needed. The aim of the present study was to analyze the baseline characteristics of our patients with infection of diabetic foot.
Methods:
27 patients hospitalized in the Angiology clinic service in Hospital Puerta del Mar (Cádiz) from June 2020-June 2021 with the diagnosis of infection of ischemic foot ulcer were included. In all patients, a biopsy of skin was perfomed for microbiological diagnosis. Clinical and analytical items were collected.
Results: Most of the ulcer were clasified as Grade III and IV of Wagner Scale. Sepsis was an unusual way of presentation (Table 1).
Conclusions: The high percentage of amputations in our cohort, show the high complexity of this patients and the need of an early diagnosis and derivation to a specific diabetic foot unit.

DOI: 10.12890/2022_V9Sup1

		N patients (%) N= 127
Age		62
Gender	Male Female	101 (80%) 26 (20%)
Diabetes		114 (89,9)
Ischemic Cariopathy		44 (34,6)
HBP		99 (78)
CKD		38 (29,9)
Diálisis		13 (10,2)
DLP		89 (70)
Smoker	Yes	60 (47,2)
	Exsmoker	13 (10,2)
	No	37 (29,1)
No revascularization candidates		74 (58,3)
Fever		7 (5,5)
QSOFA	0	124 (97,6)
	1	1 (0,8)
	2	2 (1,6)
Wagner classification	1	5 (3,9)
	2	16 (12,6)
	3	26 (20,5)
	4	56 (44,1)
	5	1 (0,8)
Previous admission		72 (56,7%)
Amputation		83 (65,4)
Mortality		3 (2,4)
Analitical characteristics Med (min-max)		
CRP		77,67 (2-375)
Leucocytes		11013,33 (1900-24803)
Neutróphiles		7935 (920-29280)

#EV0779 Table 1.

694 / #EV0780

PROGNOSTIC VALUE OF DECREASED HIGH-DENSITY-LIPOPROTEINS CHOLESTEROL LEVELS IN INFECTIVE ENDOCARDITIS

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Background and Aims: Simple parameters to be used as early predictors of prognosis in infective endocarditis (IE) are lacking. The aim of this study was to evaluate the prognostic role of high-density lipoprotein cholesterol (HDL-C) and also of total-cholesterol (TC), low-density lipoprotein cholesterol (LDL-C) and triglycerides, in relation to clinical features and mortality in IE.

Methods: Retrospective observational study with prospective data collection of 127 consecutive patients with a definite diagnosis of IE between 2016 and 2019. Clinical, laboratory and echocardiography data, mortality and co-morbidities were analyzed in relation to HDL-C and lipid profile.

Results: HDL-C (p=0.001), TC (p=0.001), and LDL-C (p=0.013) were significantly lower in deceased patients compared to survivors. HDL-C levels were also significantly lower in IE patients with embolic events (p=0.036). Based on ROC curve analysis, it was identified a cut-off value for HDL-C equal to 24.5 mg/dL for in-hospital mortality. HDL-C values below this cut-off were associated to higher CRP levels (p=0.004), higher neutrophil counts (p=0.004), lower TC (p<0.001), lower LDL-C levels (p<0.001), higher triglycerides (p<0.001), higher prevalence of S. aureus etiology (p=0.026) and higher in-hospital mortality rate (30.4% vs 7.4%; p=0.002). At multivariate analysis, HDL-C values lower than the 24.5 mg/dL cut-off correlate with in-hospital mortality (p=0.001). Kaplan-Meier survival test showed higher 90 days after admission mortality in patients with HDL-C£24.5 mg/dl (p=0.001).

Conclusions: Low HDL-C levels could be used as an easy and low-cost marker of severity in IE, particularly in prediction of complications, in-hospital and 90 days after admission mortality.

1343 / #EV0781

A CASE OF NEUROBORRELIOSIS: A NEUROLOGICAL CONDITION WITH AN INFECTIOUS ETIOLOGY

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Case Description: Neuroborreliosis is the neurological manifestation of Lyme disease, a tick-borne infectious multi-system disease caused by *Borrelia burgdorferi*; the associated manifestations are reported in 3%-12% of patients, with the most common form of presentation being meningoradiculitis. The authors report a case of a 43-years-old female that lives in a rural area with no relevant past medical history other than the recent the second dosage of the SARS-CoV-2 vaccine presented with headache, malaise and fever, that lasted for two days and persisted with proximal lower limb muscle pain, incomplete bladder emptying and constipation. Acute inflammatory myelitis associated with the vaccine was assumed at this point. Three weeks later the patient started to develop right ocular pain that worsened with ocular movements in crescendo for 14 days; additionally referred right field tunnel vision and diminished visual acuity.

Clinical Hypothesis: An immune-mediated process of unknown etiology was suspected.

Diagnostic Pathways: On direct ophthalmoscopy of the right eye,a slowed photomotor reflex and swelling of the optical disk was observed. On cerebral spinal fluid there was a discrete elevation in proteins with type 3 oligoclonal bands. No relevant pathological findings were found on imaging exams. IgM *Borrelia burgdorferi* was positive both in serum and liquor. The patient started an empiric ceftriaxone regimen for 21 days along with steroids, with partial symptom resolution.

Discussion and Learning Points: The rareness in clinical symptoms based on a treatable infectious disease, highlights the importance of the inclusion of neuroborreliosis in the differential diagnosis of transverse myelitis and optical neuritis.

 DOI: 10.12890/2022_V9Sup1

2439 / #EV0782

STREPTOCOCCUS DYSGALACTIAE AND STREPTOCOCCUS CANIS: UNCOMMON AGENTS OF BACTEREMIA

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Case Description: A 75-year-old woman with diabetes and chronic kidney disease, recently hospitalized for community-acquired pneumonia, was admitted to the emergency department with dyspnea, dry cough and fever with 5 days of onset. She had globally reduced breath sounds with crackles on the right base, and edema of the lower limbs. Blood analysis revealed an increased C-reactive protein. Chest X-ray showed a right lobar infiltrate.

Clinical Hypothesis: Nosocomial pneumonia and decompensated heart failure were assumed.

Diagnostic Pathways: After collection of microbiological studies, empirical therapy with imipenem-cilastin was started. Blood cultures were positive for *Streptococcus dysgalactiae/canis* (it was not possible to distinguish the two species). According to the antibiogram, imipenem was suspended and switched to a 14-day course of vancomycin. Blood cultures were negative on day 6 of vancomycin, and a transthoracic echocardiogram showed no signs of endocarditis.

Discussion and Learning Points: Group C (GCS) and group G streptococci (GGS) are part of the normal respiratory, gastrointestinal and female genital flora. They belong to a single subspecies (*S.dysgalactiae subsp equisimilis*) and are implied in a wide variety of human infections, particularly amongst older adults and individuals with underlying chronic diseases. Various streptococci of animal origin also express the group C or G antigen; *S. canis* is associated with several animal species (dogs, cats and cattle) and is a rare cause of human infection. The incidence of invasive disease due to GCS and GGS may be increasing, but is still rare. This case reminds us of the importance of obtaining microbiological studies and thinking beyond the usual agents of infections.

925 / #EV0783

DIAGNOSTIC CHALLENGES: STRANGE PRESENTATION FOR A COMMON DISEASE. A CASE OF EXTRAPULMONARY TUBERCULOSIS IN A PERIPHERICAL T-CELL LYMPHOMA TREATED WITH ALEMTUZUMAB

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Case Description: A 78 year-old woman was admitted to our unit because of fever and cough. She had a history of peripheral T-cell lymphoma, recently treated with alemtuzumab with peripherical remission. Physical examination demonstrated fever, tachycardia and light abdominal tenderness. Blood exams revealed elevation of C-reactive-protein and left shift leukocytosis; chest-X-ray was unremarkable; abdominal US revealed two echo-poor heterogeneous splenic lesions.

Clinical Hypothesis: Splenic abscess was suspected and piperacillin/tazobactam was started.

Diagnostic Pathways: All microbiological tests were negative. CT-scan, abdominal MRI and FDG-PET were not conclusive on the possible nature of the lesions. Transthoracic and transesophageal echography were negative for endocarditis. Antimicrobial therapy was upgraded to daptomycin, meropenem and caspofingin, without any benefit. Main differential diagnosis included hematological disease progression and an atypical infection A definite diagnosis could only be made by splenectomy, but the surgical risk was too high. A bone-marrow biopsy was performed, which revealed no signs of hematologic malignancies and the presence of alcohol acid fast bacilli, with positive PCR for *M. Tuberculosis*. Specific therapy was started with remission of symptoms.

Discussion and Learning Points: Immunosuppression induced by alemtuzumab facilitates opportunistic infections. Splenic involvement is a rare presentation of mycobacterial infection and diagnosis is mainly postoperative. Nevertheless, surgical risks of splenectomy is often too high, especially in immunocompromised patients. In our case bone-marrow biopsy was crucial; in the setting of hematological fever and splenic involvement such test may be considered to evaluate a possible disease progression and to search for pathogens targeting the reticuloendothelial system.

250 / #EV0784

CASE REPORT OF A MULTI-DRUG RESISTANT SPINAL TUBERCULOSIS

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Case Description: We present the rare case of a 35 year-old woman born in Somalia with a multidrug resistant vertebral body

 DOI: 10.12890/2022_V9Sup1

tuberculosis (TB) without other manifestations of TB. We will describe clinical procedures of finding the diagnosis, treatment and follow-up visits over a time frame of 1 year.
Clinical Hypothesis: First consultations at the GP and at our hospital's emergency department took place due to lumbago. First hospitalization took place in October 2020 due to acute exacerbation after the first lumbago onset approximately 12 weeks prior. The MRI imaging showed signs of inflammatory progress in thoracic vertebral body. We assumed a spondylitis and carried out a bone puncture.
Diagnostic Pathways: The first bone biopsy showed no conclusive result because no specific staining or culture of the specimen for TB could be obtained. The histologic examination excluded a malignant process and found fragments of necrotic bone. In a second bone biopsy, PCR for TB was positive, and a microbiological culture was established. The culture showed a multidrug resistance.
Discussion and Learning Points: Initially there were linguistic and cultural difficulties in relation to the procedures and the treatment, which prolonged the diagnosis. Furthermore, despite being a high-risk patient for spinal tuberculosis, we missed the specific microbiological testing in the first biopsy. After establishment of a TB culture, we discussed the optimal treatment with several leading infectiologists as MDR-TB being rare in Switzerland and due to the uncommon vertebral body involvement. With the help of our in hospital pharmacy, we were able to increase the adherence of our patient. There was no need for a surgical intervention.

1668 / #EV0785

CMV AS A CAUSE OF PANCYTOPENIA IN A PATIENT WITH RHEUMATOID ARTHRITIS AND SECONDARY SJOGREN SYNDROME

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Case Description: 81 years old female, with dyslipidemia, permanent atrial fibrillation, post-stroke status, seropositive and deforming rheumatoid arthritis, was admitted to study pancytopenia with Hb 4.5g/dL, 1200 leucocytes and 40,000 platelets. She was medicated with corticotherapy and gammaglobulin with no response.
Clinical Hypothesis: Clinical hypothesis were pancytopenia secondary to drugs, Evans syndrome, Felty syndrome, secondary Sjongren syndrome and viral infection / reactivation.
Diagnostic Pathways: She had positive Coombs IgG +, C3d + irregular antibodies and platelet antibodies. Myelogram and bone biopsy were normal. CMV serology had equivocal Ig M and positive Ig G, viral load by quantitative PCR was 74,800 UI/mL. No other organ disease was found. The patient started ganciclovir 900 mg bid 21 days. Quantitative PCR by the end of the treatment was negative. Close monitoring of blood cells counts was made. She needed blood transfusions and filgrastim. Significant improvement was seen. The diagnosis of secondary Sjogren syndrome was also made.
Discussion and Learning Points: Human cytomegalovirus (CMV) infects most of the population by adulthood. Primary infection is followed by asymtomatic viral latency. Pancytopenia is a serious complication of CMV reactivation that requires a prompt treatment, especially in the immuno-compromised and it is difficult to diagnose in patients exposed to immunosuppressive agents that can also suppress the bone marrow. If left untreated, CMV reactivation can lead to oesophagitis, colitis, retinitis, pneumonitis or encephalitis within a few weeks and increases the risk of death. First-line anti-CMV agents such as gancyclovir can further cause myelosuppression.This case illustrates the importance of remembering CMV reactivation in patients with autoimmune diseases who develop pancytopenia.

135 / #EV0786

COMMUNITY-ONSET BLOODSTREAM INFECTIONS IN CLINICAL UNIVERSITY HOSPITAL - CHARACTERISTICS, OUTCOMES AND UTILITY FOR SEPSIS SURVEILLANCE IN ADULTS: A RETROSPECTIVE COHORT STUDY

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Background and Aims: Bloodstream infections (BSIs) are among the leading causes of morbidity worldwide and may lead to sepsis, which is a life-threatening, yet elusive clinical syndrome, often poorly documented in medical records, underreported and underrepresented in administrative data. Improving identification methods of sepsis cases is important in sepsis surveillance. The aim of the study was to analyse the community-onset BSI cases and to assess the representation of BSI/sepsis in discharge diagnoses in Latvian multidisciplinary hospital.
Methods: During a 12-month (September 2017 to September 2018) retrospective cohort study we identified 525 adult patients with clinically significant bacteremias admitted to Pauls Stradins Clinical University Hospital. Further analysis was performed on 242 community-onset BSI cases. Data on clinical presentation, mortality and diagnoses upon discharge were evaluated.
Results: The median age in the cohort was 71 year (IQR 56-79), equal gender distribution with median Charlson Comorbidity index (CCI) of 6 points (IQR 3-7). Intrahospital mortality was 34.7%. Infectious disease was documented as the reason of hospitalisation in 59.5% of community-onset BSI cases. Sepsis/BSI was mentioned among the discharge diagnoses in 75.6% of bacteremia episodes. In no-diagnosis subgroup (N=59) 64.4% of patients had documented clinical signs/laboratory parameters attributable to sepsis. Any notion of infection was missing in 18.6%

 DOI: 10.12890/2022_V9Sup1

of cases without BSI/sepsis diagnosis upon discharge. Patients had lower CCI in no-diagnosis subgroup (p=0.046) without statistically significant correlation with age, outcome, reason of hospitalisation, pathogen or source of infection.
Conclusions: Bloodstream infections are underrepresented upon discharge. Surveillance of bacteremias may provide additional benefit to using diagnosis codes in identifying sepsis cases.

2468 / #EV0787

CEREBELLITIS DUE TO REACTIVATION OF EPSTEIN-BARR VIRUS IN THE CONTEXT OF CERVICAL HERPES ZOSTER IN AN IMMUNOCOMPETENT ADULT

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Case Description: A 61-year-old woman with no notable history presented a vesicular eruption associated to neuropathic pain in the right C3-C5 territory, diagnosed with herpes zoster and treated with oral acyclovir. Ten days later, she began to experience instability, a sensation of dizziness without turning objects and vomiting for which she consulted. Examination revealed a spontaneous rotary nystagmus associated with a vertical component in ocular supraversion and infraversion and gait ataxia. Meningeal signs were negative. Brain CT and MRI were normal. CSF analysis showed predominantly mononuclear lymphocytic pleocytosis (80% mononuclear), negative oligoclonal bands, positive Epstein-Barr virus (EBV) PCR with a viral load of 177 copies/mL, and negative varicella zoster virus (VZV) PCR.
Clinical Hypothesis: It is likely that the patient had a systemic EBV infection causing infectious cerebritis and that it in turn triggered the reactivation of VZV.
Diagnostic Pathways: Peripheral blood serology for EBV was IgG positive and IgM negative, with IgG anti-EBNA-1 negative, and no viral load. Serology for VZV was IgG positive and IgM positive. She received treatment with intravenous acyclovir for 10 days, with complete resolution of symptoms.
Discussion and Learning Points: Infectious or parainfectious cerebellitis is a rare entity in adults. Causes include VZV or EBV (being a typical paediatric pathogen). Although EBV infection rarely presents with neurological symptoms, it is necessary to include it in the differential diagnosis of acute cerebellar syndromes, especially in immunocompromised patients.

1648 / #EV0788

WHEN THE PET IS THE PROBLEM: A CASE OF PASTEURELLA MULTOCIDA BACTEREMIA

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Case Description: A 72-year-old male presented to our Emergency Department with fever and left leg redness, hotness and pain. His past history included diabetes, hypertension and obesity. He is an ex-smoker and reported no history of alcohol abuse. On examination, vital signs were stable and systems examination was nonrevealing. Lower limb assessment showed a tender left leg with diffuse, ill-demarcated erythema up to the knee with significant swelling.
Clinical Hypothesis: Lower limb cellulitis.
Diagnostic Pathways: Laboratory results on admission were notable for a white cell count of 24,000/uL with 92% of neutrophilia, C-reactive protein of 33 mg/dL and an elevated procalcitonin. Ultrasonography of the lower extremity veins excluded deep venous thrombosis. He was started on intravenous amoxicillin clavulanic acid. Blood cultures isolated *Pasteurella multocida*. At this point, the patient was questioned about animal contact, scratches or bites. He reported that he had a dog. He completed a total of 4 weeks of antibiotic with a good clinical response.
Discussion and Learning Points: *Pasteurella multocida* is a Gram-negative facultatively anaerobic coccobacillus that inhabits the normal microbiota of the respiratory tract of several animals. By infecting humans, a wide range of clinical scenarios can evolve varying from local cellulitis to more severe systemic diseases. Detailed history of animal exposure must be carried out in the management of a patient presenting with skin and soft tissue infection.

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1212 / #EV0789

PULMONARY TUBERCULOSIS: CLINICAL CASE

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Case Description: Tuberculosis is one of the oldest infectious diseases that affects humanity. In recent decades, it has been assuming an increasing relevance as a public health problem.

 DOI: 10.12890/2022_V9Sup1

The lung is the main organ affected by primary Mycobacterium tuberculosis infection. Its diagnosis makes it easier to start therapy and reduce transmission.
Clinical Hypothesis:A 19-year-old healthy woman was admitted due to right chest pain worsened by deep inspiration. No fever, dyspnea, cough, or other symptoms. Non-smoker. BCG-vaccinated. On objective examination to highlight unquantified weight loss.
Diagnostic Pathways: Analytically, high sedimentation velocity (70 mm) was highlighted, with normal blood count and blood chemistry and negative myocardial necrosis markers. Chest x-ray with cavitation in the left upper lobe. Computed tomography describes "spiculated opacity in the left upper lobe with a maximum diameter of 4 cm, with thin and regular walls, showing a small adjacent cavitation of 1 cm". Hiv Hbv Hcv serologies and blood cultures were negative. Normal tumor markers. The Acid-Alcohol Resistant Bacillus test is negative in the first sample. PCR search for *Mycobacterium tuberculosis* is positive in bronchoalveolar lavage. Bacillary therapy was started with good clinical evolution.
Discussion and Learning Points: The authors intend to draw attention to the fact that tuberculosis is currently assuming an important role as a public health problem, also in "immunocompetent" individuals. Thus, it was concluded that despite all the scientific evolution and the diversity of complementary means, its diagnosis is often late due to the insidious presentation and negativity of the diagnostic tests.

185 / #EV0790

WEIL SYNDROME: A CASE REPORT

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Case Description: A 64-year-old male presented to the emergency department with a 5-day history of right-upper abdominal pain,diarrhea,vomiting,anorexia,pruritus,myalgia and episodes of mild hemoptysis.He denied fever,travel history,ingestion of mushrooms,alcohol or drugs,contact with sick animals or persons. He lived in a rural area with possibility of mice outside and drank only bottled water.Upon admission,he was jaundiced with diffuse abdominal tenderness without peritoneal irritation,no signs of encephalopathy or stigmata of chronic liver disease.Vital signs were normal.
Clinical Hypothesis: Causes of hyperbilirrubinemia were considered, including zoonotic diseases.
Diagnostic Pathways: Laboratory studies demonstrated mild anemia (Hb 11.8 g/dL), 14,050 white blood cells/mm^3, thrombocytopenia (15,000 cells/mm^3), elevation of CRP (206 mg/L), ALT/AST=165/138 UI/L, total bilirubin=23.6mg/dL, direct bilirrubin=16.7 mg/dL, slight elevation of ALP, GGT and LDH, non-oliguric acute kidney injury (Cr=5.7mg/dL) without electrolyte disturbances. Coagulation studies were normal. Peripheral smear reading had no significant schistocytes or platelet clumps.Coombs-test was negative. CT-scan showed signs of alveolar haemorrhage and excluded gallbladder inflammation, dilation of biliary ducts, cholelithiasis or pancreas abnormalities. Microbiology of blood,sputum and stool remained negative. Serologies for hepatitis A, B, C, E, HIV and Herpes-virus were negative, as were autoimmunity screening. *Leptospira* specific IgM-antibodies were positive and the diagnosis was confirmed by detection of *Leptospira* DNA in urine and blood.
Discussion and Learning Points: He was admitted to an intermediate-care unit and empirical treatment with ceftriaxone was started. He had complete clinical recovery with no need for invasive organ support. Leptospirosis is a zoonotic disease with a wide spectrum of severity. Weil syndrome is characterized by the triad of jaundice, kidney dysfunction and hemorrhagic manifestations,being associated with a high mortality rate.It should be considered in patients presenting with an acute, non-specific illness associated with jaundice and multiorgan involvement,even in the absence of fever. A low threshold to consider this diagnosis allows for an early and adequate treatment.

1104 / #EV0791

ACTINOMICOSIS – A DIFFERENTIAL DIAGNOSTIC TO CONSIDER

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Case Description: A 55-year-old woman, oligophrenic, with a medical history of hypertension, dyslipidaemia and epilepsy. She was admitted for low-intermediate-risk bilateral pulmonary thromboembolism. Posterior investigation revealed deep venous thrombosis in the right lower limb. No modifiable factors were identified, except obesity. There was no history of recent immobilization or surgery. Infectious or autoimmune disease were excluded.
Clinical Hypothesis: In the search for possible occult neoplasia, cervical computed tomography showed a, right sided, nodular bulging of lateral and anterior wall of the oropharynx, with infracentrimetric adenopathies in the ipsilateral internal jugular chain, suggesting a neoplastic process. Posteriorly confirmed by magnetic resonance imaging (MRI). No risk factors for local infection (recent dental extraction or poor oral hygiene) were identified.
Diagnostic Pathways: Tonsillectomy was performed and histological analysis revealed the presence of colonies of actinomyces, with no evidence of malignancy. A new cervical MRI was performed showing residual disease. The patient responded well to a long course of antibiotherapy, with no evidence of local complications at the 3-month follow-up.
Discussion and Learning Points: *Actinomyces spp* are anaerobic, Gram-positive bacteria, commensal of the oropharynx, gastrointestinal and genitourinary tracts. This agent can cause cervicofacial infection when preceded by trauma or odontogenic

 DOI: 10.12890/2022_V9Sup1

infections, by direct tissue invasion, or, more rarely, by haematogenous dissemination. Actinomycosis usually manifests in an indolent form, with abscess formation or dense fibrosis. Actinomycosis can be considered a diagnostic conundrum. This infection, can mimic granulomatous or neoplastic diseases, and, despite being a relatively rare condition, should be considered in the differential diagnoses of soft tissue masses in the head / neck.

2668 / #EV0792

CHRONIC OSTEOMYELITIS: REPORT OF CLINICAL CASE (IMPORTANCE OF EARLY DIAGNOSIS AND TREATMENT)

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Case Description: We present a 12-year-old woman case with no medical history. She consulted due to 2-months-ago pain and swelling in the left sternoclavicular joint, with limitation mobility of upper extremity. She did not report trauma, arthralgia in other locations, fever, weight loss, nor profuse sweating. On physical examination, left sternoclavicular swelling with increased soft tissue with no other medical findings.
Clinical Hypothesis: Slight increase in acute phase reactants was observed, with no other relevant results (including autoimmunity study ANA, ANCA, HLA-B27). Clavicle radiography showed insufflation and lytic lesion in the proximal end of the left clavicle. Soft tissue ultrasound showed an expansive appearance in medial margin of left clavicle and an asymmetry in the caliber of both clavicles with areas of cortical interruption.
Diagnostic Pathways: Study was completed with MRI: insufflating lesion in the proximal third of the left clavicle of medium-low aggressiveness. Therefore, the most likely diagnoses were osteomyelitis and eosinophilic-granuloma. A bone biopsy was performed and chronic osteomyelitis was diagnosed. Cultibacterium acne, penicillin-sensitive, was isolated and antibiotic therapy was established.
Discussion and Learning Points: Osteomyelitis incidence is decreasing thanks to antibiotic therapy. The most frequently microorganism involved is *Staphylococcus aureus* and the most frequent locations are metaphyses of long bones in children vs vertebrae and pelvis in adults. The incidence by age is concentrated between 15-35 years. Depending on time, it can be classified as acute osteomyelitis (<2 weeks), subacute or chronic (>6 weeks). Standard of care is antibiotic-therapy and when it does not evolve properly, aggressive debridement of soft tissues and bone for subsequent reconstruction of the affected area is recommended.

522 / #EV0793

MENINGITIS IN AN IMMUNOCOMPROMISED PATIENT: A DIAGNOSTIC CHALLENGE

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Case Description: We present the case of a 39-year-old patient with chronic kidney disease due to an IgA mesangial glomerulonephritis and bone marrow suppression by azathioprine. During a hemodialysis session the patient has an episode of loss of consciousness. In anamnesis he claimed an oppressive frontal headache of a month of evolution and an episode of right peribuccal sensory disorders that were extended to the right arm with mild dysarthria. He denied fever or any other symptom.
Clinical Hypothesis: Given the history of immunosuppression of the patient it was a priority to rule out an infectious origin. Furthermore, epileptic seizures and space-occupying lesions of the brain must be considered within the differential diagnosis.
Diagnostic Pathways: A cranial CT was performed where late uptake with leptomeningeal enhancement was observed in the left frontal region. The cerebrospinal fluid was clear, with proteinorrachia (0.86 g/L), hypoglucorrachia (15 mg/dL), 93 leukocytes/microliter (97% mononuclear cells) and low ADA (5.3 U/L) so it was diagnosed as tuberculous meningitis. However, once the tuberculostatic treatment was started, the patient developed high fever, diplopia, photophobia and worsening of the headache. A new lumbar puncture was made, with turbid cerebrospinal fluid this time and positive *Criptococcus neoformans* antigen. Finally, CSF culture isolated *Cryptococcus neoformans* and acid-fast bacilli establishing the diagnosis of co-infection by both microorganisms
Discussion and Learning Points: Central nervous system fungal infections are rare in immunocompetent individuals but are a major problem in transplant or HIV patients and in those with cellular immunity defects. According to recent studies, positive *Cryptococcus* antigen is enough to start treatment.

376 / #EV0794

ROLE OF HDL-CHOLESTEROL AS A MARKER OF IMMUNE ACTIVATION AND ITS EVOLUTION WITH ANTIRETROVIRAL TREATMENT

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Background and Aims: Lipid profile changes in HIV-infected patients is a well-known phenomenon, regardless of whether receive antiretroviral therapy (ART) or not. Changes in high-density lipoprotein (HDL) cholesterol levels have been associated to different phenomena related to immune activation as changes in the inflammatory markers' levels or immunovirological response.

 DOI: 10.12890/2022_V9Sup1

Aim: To assess changes in HDL-cholesterol levels in HIV-infected patients who received ART throughout the disease course and its relationship with CD4/CD8 ratio.
Methods: Observational cohort study (2015-2020) of ART-naive patients diagnosed of HIV infection and treated at Valme University Hospital (Seville, Spain). Patients were followed up at 6 months after diagnosis and, at least, 12-months afterwards. Lipid profile, T-cell counts, CD4/CD8 ratio and viral load were collected in each visit. We assessed the relationship between HDL-cholesterol levels and CD4/CD8 ratio throughout the follow-up.
Results: During the study period, 60 patients were included. Median adherence to ART was 98.7%. Median (Q1-Q3) HDL-cholesterol levels at diagnosis: 39 (34.8-52.3) mg/dL; median (Q1-Q3) HDL-cholesterol levels at 1-year follow-up: 45.5 (39.8-57) mg/dL. Median difference between HDL levels at diagnosis and 1-year follow-up: 4.5 mg/dl (95% confidence interval [CI]: 1.5-8; p=0.035). There was a positive correlation between HDL-cholesterol levels at diagnosis and CD4/CD8 ratio at diagnosis (Pearson correlation coefficient 0.502; p<0.001), first visit (0.351; p<0.011) and 12-month follow-up visit (0.359; p<0.007).
Conclusions: There was a linear relationship between HDL values at diagnosis and CD4/CD8 ratio both at diagnosis and during the first-year follow-up. This found suggests that HDL levels at diagnosis could predict the immunological response of HIV-infected patients undergoing ART.

213 / #EV0795

APPROPRIATENESS OF DIAGNOSIS AND TREATMENT OF URINARY TRACT INFECTION IN THE EMERGENCY DEPARTMENT

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Background and Aims: The inappropriate use of antibiotics (AB) is associated with an increase in resistant microorganisms. The aim of this study was to determine the appropriateness of urinary tract infection (UTI) diagnosis and AB prescription in patients presenting to the Emergency Department (ED).
Methods: Observational, retrospective study of patients with UTI presenting to the ED between July 1st and August 31st of 2021 .
Results: Of the 104 patients, 65% were female, with an average age of 57 years. 65% were diagnosed with non-specified UTI, 31% with acute cystitis and 3% with acute pyelonephritis. 8% didn't undergo laboratory investigation. Of the remaining, in only 1 patient urinalysis wasn't performed, 69% underwent blood tests and 16% urine culture (UC). In 10 UCs an agent was isolated, with *Escherichia coli* being the most frequent. In 97% of cases an AB was prescribed, amoxicillin-clavulanate was the most prescribed AB, with all its prescriptions being inappropriate, followed by fosfomycin and quinolones. In 36% of cases the ITU diagnosis was inadequate. The majority of prescriptions was made by General Clinicians, and they were almost always inadequate.
Conclusions: There was a high prevalence of inappropriate use of AB in the treatment of UTIs in the ED. This might have happened due to high rates of patient turnover, decreased continuity of care, incorrect valorization of urinalysis, simplification of UTI diagnosis and decisions made in the absence of meaningful microbiologic data. There is a need for implementation of antibiotic stewardship programs in the ED, in order to improve outcomes.

2276 / #EV0796

SOMETIMES WHAT IS NEW, CAUSES PROBLEMS

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Case Description: 63-years-old woman with atorvastatin and infliximab, with generalized motor deficit after head trauma and constitutional syndrome, without 5 cms painful hepatomegaly. Neuroimaging tests without findings and blood test with dyshemopoiesis without immaturity cell (context of anti-TNFα) and thrombocytopenia (27,000/µl) with normal coagulation; cholestasis with cytolysis (Br 2.4mg/dl; AF 654 IU/L; GOT 618 IU/L/GGT 1918 IU/L). Hepatomegaly with inflammatory signs, without biliary involvement, in abdominal MRI. Negative autoimmune screening and IgG HAV positive. Suspecting thrombocytopenia in context of infliximab acute liver failure, corticosteroid therapy was started with clinical and analytical improvement.
Clinical Hypothesis: Hepatotoxicity due to TNF-α antagonists is class effect, courses with hepatocellular injury hypertransaminasemia with predominant cholestasis. Liver biopsy may be indicated when are diagnostic doubts. The prognosis is usually good, but in severe cases immediately discontinuation is recommended with corticotherapy.
Diagnostic Pathways: Fulminant hepatic failure is a rare condition with a high mortality, requires a prompt diagnosis, etiological management, and adequate supportive therapy. There are international guidelines and recommendations such as the European Association for the Study of Liver (EASL) and the American Association for the Study of Liver Diseases (AASLD) regarding the management of liver failure and all multisystemic complications.
Discussion and Learning Points: TNF-α antagonists hepatotoxicity is a class effect, infliximab is main causal agent. Infliximab effectiveness has been demonstrated in treatment of rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis. Despite its proven safety, hepatotoxicity is one of the least frequent.

 DOI: 10.12890/2022_V9Sup1

There are few cases reported in the literature on hepatotoxicity in relation to infliximab, most in patients with rheumatic diseases with underlying viral disease.

2465 / #EV0797

ACUTE KIDNEY FAILURE IN CLASSIC DENGUE FEVER

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Case Description: A previously healthy 43-year old man was transfered to our hospital from Cuba for classic Dengue fever, after having developed acute liver failure (ALF), acute kidney injury (AKI) requiring renal replacement therapy, and multiple infectious complications, notably *Pseudomonas aeruginosa* and *Enterobacter cloacae* bacteremia. On examination, he was clinically estable, with jaundice being the only abnormality. Laboratory samples were notable for significant leucocytosis, elevated C reactive protein and procalcitonin levels, as well as AKI (Cr 7.58 mg/dl, GF 8ml/min) and ALF.

Clinical Hypothesis: Differential diagnosis for AKI consisted of sepsis-associated acute tubular necrosis or post-infectious glomerulonefritis (PIGN) secondary to Dengue, *P. aeruginosa* and *E. cloacae* infection.

Diagnostic Pathways: A complete study was conducted, including a 24h urinalysis, viral serologies, renal ultrasound, autoimmune screening and serum proteinogram. Main findings were 2.2g/day proteinuria and low C3-complement levels. Antibiotic regime with ceftacidime/avibactam was initiated, with significant improvement. However, renal dysfunction persisted, with serum creatinine levels of 2.5 mg/dl and 1.1 g/day proteinuria, suggesting probable glomerular disease, and therefore probable PIGN. A renal biopsy was performed, where acute endocapillary proliferative glomerulonephritis with C1q and C3 deposits confirmed the diagnosis of PIGN. Moreoever, there was also interstitial limphocytic infiltrate suggesting acute interstitial nephritis so corticoids were initiated. Complete recovery of kidney function was achieved, and the patient was discharged.

Discussion and Learning Points: Post-infectious glomerulonephritis usually occur in association with bacterial infections, and less frequently with viral infections. Although glomerulonephritis due to inmune-complex deposition has been described with Dengue infection, it is rare, and therefore other more common glomerulopathies must be excluded before reaching this diagnosis.

2177 / #EV0798

THE STRANGE CASE OF THE BOY WITH THE BLACK HOLES IN THE LUNGS

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Case Description: A 29-year-old man presented with fatigue, pleuritic chest pain, productive cough, progressive dyspnea, fever, chills, night sweats and involuntary weight loss >10Kg, along the previous month. The patient confirmed IV drug consumption in the past, active smoking, and personal history of cured HCV infection; still have had a DVP on the left leg 3 weeks before; and was emaciated, pale, hypotensive, slightly dehydrated and with a slight reduction in vesicular murmur in the upper 1/2 of the right lung, upon observation.

Clinical Hypothesis: Pulmonary tuberculosis, pneumoniae, malignancy, COVID-19, and aspergillosis.

Diagnostic Pathways: Arterial blood gas showed hypoxemia; blood tests revealed anemia [hemoglobin 8.6g/dL], leucocytosis with neutrophilia [19 820/L leukocytes, 84.8% neutrophils], PCR 395.2 mg/L; initial thoracic CT-angiography showed multiple bilateral consolidations, scattered nodules, and a pleural effusion suggesting granulomatous/malignant pulmonary aspects, pulmonary inflammation/infection as well as hypertrophic ganglia, and upper abdomen features of hepatosplenomegaly; a second thoracic CT scan uncovered aspects suggesting a progressive cavitary pneumonia, and pleural effusion with empyema features upon drainage; microbiology was found to be unremarkable, either for acid-fast bacilli or fungal cultures; molecular biology discharged SARS-CoV-2 or BK infection; and immunology excluded the presence of atypical agents, and HIV, HBC and/or HCV infection.

Discussion and Learning Points: Patient initiated oxygen therapy, fluids, and bronchodilation, and was started on empirical antibiotic. Despite these measures, his respiratory/pulmonary condition kept worsening, and increasing oxygen supply and switching empirical antibiotic twice were needed, to achieve a favourable evolution. Medicine can practice some miracles, but after a prolonged hospital stay and 32 days of empirical antibiotic therapy, the patient was discharged with no causative agent identified.

DOI: 10.12890/2022_V9Sup1

645 / #EV0799

A CASE OF RAMSAY-HUNT SYNDROME ASSOCIATED TO VARICELLA-ZOSTER VIRUS ENCEPHALITIS IN AN ADULT IMMUNOCOMPETENT PATIENT

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Case Description: A 63-year-old male immunocompetent patient presented with severe headache in the area of the left mastoid process and hoarseness. Within 48 hours after admission, he developed fever, vertigo, left peripheral facial palsy and vesicular rash of the left ear.

Clinical Hypothesis: Ramsay-Hunt syndrome (RHS) associated with varicella zoster virus (VZV) reactivation affecting the central nervous system was diagnosed.

Diagnostic Pathways: Lumbar puncture revealed elevated protein and nucleated cells (lymphocyte-dominant), while VZV was detected in the cerebrospinal fluid by polymerase chain reaction. Brain MRI revealed abnormal enhancement of the left facial nerve and a T2-FLAIR hyperintense, T1-hypointense lesion in the right posterior upper pons. The patient received intravenous acyclovir for 21 days with subsequent elimination of vertigo and headache, but only partial improvement of his left facial palsy. On follow up MRI after two months, the pontine lesion resolved, thus it was attributed to brainstem encephalitis caused by VZV infection.

Discussion and Learning Points: Ramsay-Hunt Syndrome is the result of reactivation of VZV at the geniculate ganglion and may be associated with serious neurological complications. Our patient developed RHS with simultaneous brainstem encephalitis, without radiological signs of VZV vasculitis. MRI can provide crucial information on the extent of brain tissue involvement and patient follow-up.

1636 / #EV0800

MYCOPLASMA PNEUMONIAE INFECTION: AN UNUSUAL PRESENTATION

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Case Description: 22-year-old woman with fever, abdominal pain, diarrhoea and vomiting of ten days' duration. No previous medical history of concern. Analytically there was leukocytosis with neutrophilia, impaired renal function, elevated gamma-glutamyltransferase and proteinuria in the urine. The abdominal CT scan showed terminal ileitis. All other imaging tests were normal. At first she was stable, but as the days went by she began to show multi-organ failure, hypotension, stupor, paralysis of the VII and VI cranial pars, erythema multiforme major and bilateral anterior uveitis.

Clinical Hypothesis: Given the systemic involvement, different diagnoses were put forward, ranging from herpes simplex encephalitis to *Mycoplasma* infection with extensive extraintestinal involvement or IgA vasculitis. Finally, a diagnosis of *Mycoplasma pneumoniae* infection with systemic involvement was made after IgG-positive seroconversión having a good response to doxycycline.

Diagnostic Pathways: Due the patient's worsening clinical condition numerous tests were carried out until the diagnosis was made. The main ones were: autoimmunity study, blood and stool culture, serology for viruses and bacteria compatible with systemic involvement, tuberculosis and HIV tests. All results were negative except for: increased IgA, decreased complement, *Mycoplasma pneumonia* IgM + and Ac IgM and IgG of Herpes simplex 1+2. Cerebrospinal fluid showed increased protein and lymphocytes with negative bacterial culture and virus PCR.

Discussion and Learning Points: As is well known, *Mycoplasma pneumoniae* infection can be associated with immunopathogenic processes and, even if it is not common, there are a few cases described in the literature where the initial presentation is in the form of ileitis.

2714 / #EV0801

MICROORGANISMS IN INTENSIVE CARE: NEW RESISTANCES AND NEW LINES OF TREATMENT

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Case Description: We present a 31-year-old woman hospitalised in the Intensive Care Unit after a torpid evolution of a refractory dermatomyositis flare. The subject received intensive immunosuppressive treatment, including intravenous immunoglobulin (IVIG) which, altogether among other therapies, led to a volume overload and consequent respiratory failure requiring long-lasting invasive respiratory support which, after three months, still needs. We were consulted because of a respiratory worsening. The clinical history included previous episodes of ventilator-associated pneumonia and posterior colonisation by *S. maltophilia* and ecthyma gangrenosum by *P.*

 DOI: 10.12890/2022_V9Sup1

aeruginosa. At the present, the patient was already being treated with piperacillin-tazobactam (4g/6h), linezolid (600mg/12h) and trimethoprim-sulfamethoxazole in prophylactic doses (160 mg/800 mg, three times a week).
Clinical Hypothesis: Given the present medical history several diagnoses were considered including a respiratory infection led by a multi-resistant microorganism and a non-infectious-related respiratory failure.
Diagnostic Pathways: We took samples from bronchial suction. Two different strains of *P. aeruginosa* grew in the culture, being the most malignant of them resistant to a wide range of antibiotics including quinolones and all beta-lactams tested. Among these we could find ceftazidime/avibactam and ceftolozane/tazobactam. We studied cefiderocol susceptibility, with the microorganism being sensible and therefore becoming the treatment of choice.
Discussion and Learning Points: *P. aeruginosa* XDR represents a growing challenge in critic patients. With growing resistance to current antimicrobials, colistin may rest as the only option available. However, its toxicity and complex pharmacodynamics might become an inconvenient for fragile patients. Cefiderocol rises up as an alternative of future in these cases.

1958 / #EV0802

A CASE OF NECROTIZING SOFT TISSUE INFECTION: NOT ALWAYS A RAPID INTERVENTION AVOIDS A POOR OUTCOME

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Case Description: A 62 year-old male with a medical history of rectal cancer came to hospital for abdominal pain and symptoms of intestinal subocclusion, which fortunately resolved with medical care only. During the stay in ward, the patient, without trauma or any other specific reason, suddenly complained acute and severe right lower leg pain.
Clinical Hypothesis: Necrotizing soft tissue infection.
Diagnostic Pathways: To physical examination the leg appeared swollen compared to the other, but signs of infection or acute ischemia were not present. Compression ultrasound excluded deep vein thrombosis. Contrast enhancement CT of the leg was performed and air bubbles in the muscle were discovered, raising the suspicion of necrotizing soft tissue infection. The patient promptly underwent decompression surgery which confirmed the suspect and started systemic antibiotic therapy (meropenem plus vancomycin). Cultures of intraoperative secretions yielded *Clostridium spp*. The ulcerated rectal mass previously documented was probably the cause of the infection spreading. Unfortunately, 24 hours after surgery, obstruction of popliteal artery was documented without chance of revascularization. Hyperbaric oxygen therapy was used to reduce the area of necrosis, but nonetheless the patient 2 weeks later underwent limb amputation.
Discussion and Learning Points: Necrotizing soft tissue infections are characterized clinically by fulminant tissue destruction, systemic signs of toxicity (which our patient did not show probably cause the prompt treatment) and high morbidity and mortality. Surgery and antibiotic therapy are the mainstay of therapy and should be performed as soon as possible to reduce morbidity and mortality.

846 / #EV0803

TUBERCULOSIS AS A DIFFERENTIAL DIAGNOSIS OF MALIGNANCY

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Case Description: 87-year-old woman with arterial hypertension, dyslipidemia and atrial fibrillation. Presented to the Emergency Room (ER) with a 10-month history of asthenia, anorexia and weight loss; she denied fever, cough or night sweats; ambulatory endoscopic studies excluded suspected lesions. Performed a non-contrast abdominal computed tomography (CT) scan, which revealed loculated ascites, mesenteric fat densification and an increase in the number of celiac, periportal and retroperitoneal nodes.
Clinical Hypothesis: A diagnosis of peritoneal carcinomatosis from an unknown primary site was assumed, and the patient was discharged to the Oncology consultation. Due to progressive deterioration of her general condition, she returned to the ER and was admitted to the internal medicine ward for study. Since the abdominal imaging findings were not exclusively consistent with a neoformative process, the hypothesis of mycobacteriosis was considered.
Diagnostic Pathways: Thoracic CT scan showed no evidence of pulmonary lesions. Analytically with elevation of inflammatory parameters, anemia (hemoglobin-10 g/dL) and thrombocytopenia (44,000/mL). Ascitic fluid with a serum-ascites albumin gradient of 1.0 g/dL, 1537 leukocytes/µL (75% polymorphonuclear) and an increased adenosine deaminase (105.3 U/L); negative bacteriological, anatomopathological and immunophenotypic studies. Cultural examination later confirmed the isolation of *Mycobacterium tuberculosis* complex, but the patient ended up dying prior to the institution of directed treatment.
Discussion and Learning Points: Tuberculosis, particularly in its extrapulmonary forms, is an important differential diagnosis of neoplasia. Its distinction is based on the imagiological and histopathological evaluation of the findings; the approach to ascitic fluid is easily accessible and useful. A high index of suspicion should exist, since the delay in diagnosis affects the prognosis.

 DOI: 10.12890/2022_V9Sup1

2015 / #EV0804

THE CHALLENGES IN DIAGNOSING SPINAL PATHOLOGY: REGARDING A CASE OF SPONDYLODISCITIS

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Case Description: 58-year-old male with history of arterial hypertension, dyslipidemia, smoking, diffuse osteoarthrosis and psoriatic arthritis (PA) without therapy. Presented to the Emergency Room with a one-month history of oligoarthritis (right shoulder, left metacarpal and metatarsal) and low back pain. Physical examination only showed signs of inflammation in the affected joints; apyretic. Analytically: elevation of inflammatory markers (ESR-91 mm, CRP-375.9 mg/L, negative anti-CCP antibodies) and inflammatory anemia. Lumbosacral spine CT scan with prominent and diffuse degenerative alterations; integral paravertebral soft tissue.

Clinical Hypothesis: A diagnosis of a PA flare with possible axial involvement was assumed, and initiated prednisolone (1-mg/kg/day); subsequent association with methotrexate with good initial response.

Diagnostic Pathways: Was observed a joint effusion in the left knee, submitted to arthrocentesis; instituted empirical amoxicillin/clavulanate and changed to flucloxacillin after isolation of MSSA from joint fluid. Due to persistent low back pain, despite apyrexia, was performed a MRI, revealing interapophyseal septic arthritis (L4-S1), spondylodiscitis (L4-L5) and several posterior paravertebral abscesses along the lumbar spine and adjacent to the psoas muscles. Surgical cleaning and vertebral fixation was performed, and isolated the same agent in the intracanal exudate, completing 3 months of antibiotic.

Discussion and Learning Points: Spondylodiscitis is the inflammation, usually of infectious origin, of the intervertebral discs and adjacent vertebral bodies, with the lumbar segment being the most affected. MRI is the most sensitive exam, and targeted antibiotic therapy the first-line treatment. This case illustrates the difficulties in diagnosing spondylodiscitis, due to the insidious clinical features and the high prevalence of low back pain caused by degenerative and/or inflammatory osteoarticular pathology.

1976 / #EV0805

OTITIS EXTERNA: A RARE COMPLICATION AND THE IMPORTANCE OF APPROPRIATE INITIAL ANTIBIOTIC THERAPY

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Case Description: We report a 48-year-old Caucasian woman with a 28 pack-year smoking history, sinusitis, and a 6-month history of recurrent acute otitis externa. She had been previously prescribed metronidazole, amoxicillin acid clavulanic, flucloxacillin, ciprofloxacin and gentamicin. The patient presented to the Emergency Department with a 2-day history of left cheek erythema, pain, and fever. She had an ear drainage culture obtained 2 months prior positive for *Pseudomonas aeruginosa*. Physical examination showed left cheek diffuse swelling with slight erythema, and severe otalgia worsened by pressure on the tragus, otorrhea, erythema and swelling of the left ear canal. The patient was started on empiric meropenem and vancomycin.

Clinical Hypothesis: The diagnosis of facial cellulitis secondary to recurrent otitis externa was clinically made. It was, however, important to rule out other complications, in the setting of a 6-month history of recurrent otitis externa.

Diagnostic Pathways: CT findings confirmed cellulitis, and ruled out other complications. The patient was evaluated by an otolaryngologist and topic therapy was initiated, namely fusidic acid, ciprofloxacin, and corticoid. Methicillin-sensitive *Staphylococcus aureus* (MSSA) was isolated from the exudate in the ear canal. It was decided not to de-escalate antibiotic treatment due to the possibility of other involved agents in the context of a 6-month infection.

Discussion and Learning Points: This case illustrates the importance of reflecting on the most common organisms involved in an infection, in order to begin prompt appropriate therapy and prevent complications.

1659 / #EV0806

RAOULTELLA ORNITHINOLYTICA IN A MALT TYPE NON-HODGKIN LYMPHOMA – A CASE REPORT

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Case Description: A 76-year old man with a known medical history of non-Hodgkin lymphoma MALT type for which he had undergone chemotherapy but continued to show disease progression, was admitted to the Emergency Department due to shortness of breath with 12 hours of evolution. He showed signs of respiratory distress and respiratory acidosis. He began non-invasive mechanical ventilation. Blood analysis revealed elevation of C-reactive protein (CRP) and blood and urine cultures were harvested but no pathogen was identified. Chest x-ray showed bilateral diffuse infiltrates. He was diagnosed with Usual Interstitial Pneumonia, beginning treatment with pulses of methylprednisolone for five days. With clinical improvement he was transferred to the Pulmonology Department maintanining corticotherapy with prednisolone 60mg daily. After three days

 DOI: 10.12890/2022_V9Sup1

he presented fever, elevation of CRP and procalcitonin. Urine culture and sets of blood cultures were harvested and identified R. ornithinolytica. He began treatment with cotrimoxazole with resolution of urinary tract infection and blood stream infection. The patient showed progressive clinical improvement and was discharged three weeks later.
Clinical Hypothesis: Infection by *Raoultella ornithinolytica*.
Diagnostic Pathways: Blood and urine cultures.
Discussion and Learning Points: The incidence of human disease associated with *R. ornithinolytica* is low. To the best knowledge of the authors this is the first time an UTI with progression to a bloodstream infection by *R. ornithinolytica* has been reported in a patient with a non- Hodgkin lymphoma MALT type. This is a pathogen with powerful virulence so, though very rare in clinical setting, when identified as cause of an infection, should always be treated and antimicrobial susceptibility tests performed.

1664 / #EV0807

THE IMPORTANCE OF THE LUMBAR PUNCTURE IN THE FEVERISH PATIENT

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Background and Aims: Herpes viruses are may cause central nervous system infections in humans. They cause encephalitis or meningitis and affect anyone regardless of age or immunity. This 12 month study focuses on patients hospitalized due to fever and altered level of consciousness and in whom a lumbar puncture was performed.
Methods: A retrospective cohort study between January and December of 2020 including patients diagnosed with central nervous system infection in an Internal Medicine Department.
Results: 17 patients (64.7% male and 35.3% female; mean age of 64.2 years) were hospitalized due to fever (temperature above 38ºC) with no identified infectious cause and altered level of consciousness. One was diagnosed with acute ischemic stroke with no head-CT scan image findings but had a lumbar puncture (LP) performed 24 hours after admission. The remaining 16 patients had a LP performed on admission and treatment with empirical antibiotic and antiviral. Nearly all cerebrospinal fluid samples (CSF) (n=16) were crystal clear. Analysis of CSF for neurotropic viruses was positive for herpes simplex in two patients (including the one diagnosed with stroke). Patients with negative virus testing (n=15) had antimicrobial therapy suspended without recurrence of fever. The remaining 2 patients maintained antiviral therapy with resolution of fever and no neurological sequalae.
Conclusions: Patients with fever without identifiable cause and altered level of consciousness should have performed a LP in order to exclude central nervous system infection. Though these cases are less common, viral central nervous system infections, especially by herpesviruses, have a high mortality rate and so LP and empirical antiviral therapy should always be done.

671 / #EV0808

A CASE OF NON-HIV PNEUMOCYSTIS PNEUMONIA ASSOCIATED WITH TOPICAL STEROID USE FOR PSORIASIS VULGARIS

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Case Description: A patient is a 68-year-old man, diagnosed with psoriasis vulgaris two years ago and started on high potency topical steroid. Four months before admission, the amount of topical steroid was quadrupled to 10 g/day. One month before admission, painful ulcers appeared around the lips, oral cavity, and on both lower limbs. 10 mg/day oral corticosteroid was added. On admission, he had a fever for three days. A CT scan of the chest showed scattered ground-glass opacities and an 11-mm cavitating lesion in the left upper lobe.
Clinical Hypothesis: He was given antibiotics for suspected pneumonia and cellulitis. The cause of the ulcer was unclear.
Diagnostic Pathways: Bronchoscopy was performed and cytology revealed *Pneumocystis jirovecii*. He responded well to trimethoprim-sulfamethoxazole. On the 31st hospital day, he developed a fever again. Voriconazole was started for suspected invasive pulmonary aspergillosis due to an enlarged cavitating lesion and elevated beta-D glucan. Bronchoscopy was performed again, and the diagnosis of non-small cell lung carcinoma was made. For his poor general condition, he was to receive palliative care.
Discussion and Learning Points: Non-HIV *Pneumocystis* pneumonia (PCP) is a rare but fatal condition. PCP prophylaxis is considered with a patient receiving high-dose systemic steroid, but the incidence of PCP by topical steroid is extremely rare. In this case, the use in highly absorbent areas including the face, scrotum, and ulcerated lesions may accelerate the absorption of steroids and lead to severe immunodeficiency. No cause of acquired immunodeficiency other than cancer was identified. We believe that PCP prophylaxis should be considered even in high doses of topical steroid users.

2367 / #EV0809

WHO IS KNOCK, KNOCK, KNOCKING ON DEATH'S DOOR? VISCERAL LEISHMANIA

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Case Description: A 53-year-old man with multiple sclerosis managed with a sphingosine-1-phosphate receptor binder, presented with fever and respiratory symptoms that did not improve with emperic antibiotic treatment.
Clinical Hypothesis: Fever, respiratory symptoms and fatigue in an immunosuppressed patient opens a wide differential diagnosis including infections, malignancy, autoimmune or granulomatous disorders.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: On presentation, vital signs were normal except fever of 38.5ºc. Physical exam was significant for hepatosplenomegaly. Laboratory work was significant for pancytopenia with monocytosis of 21%, elevated alkaline phosphatase and GGT, and low albumin. Blood cultures were negative. Serologies for hepatitis B and C, HIV, CMV, EBV, parvovirus, and Rickettsiaceae were all negative. ANA and ACE were normal. AMA, MPO and PR3 were negative. CT showed hepatosplenomegaly without lymphadenopathy or solid masses. Bone marrow biopsy showed hypercellularity with a left shift, but did not reveal a diagnosis. Liver biopsy showed: mild focal portal chronic inflammation and scattered with intrasinusoidal neutrophils, numerous sinusoidal Kupffer cells containing tiny round bodies compatible with Leishmania amastigotes, while acid fast bacilli staining for Mycobacterium tuberculosis was negative.
Discussion and Learning Points: 1. To describe the clinical presentation of leishmaniasis.
2. To develop the clinical reasoning skills in going from a broad differential diagnosis to a conclusive diagnosis of *Leishmania*.
3. To demonstrate skills in diagnosing Leshmaniasis through imaging, pathology and tissue biopsy. Leishmaniasis, caused by a protozoa parasite resulting in 3 main forms: visceral, cutaneous and mucocutaneous. Visceral leishmaniasis is fatal if left untreated. New cases of occur worldwide, remaining one of the top parasitic diseases with outbreak and mortality potential.

967 / #EV0810

NEUTROPHIL-TO-LYMPHOCYTE RATIO LEVELS AND PROGNOSTIC VALUE IN ADULT PATIENTS INFECTED WITH RESPIRATORY SYNCYTIAL VIRUS.

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Background and Aims: Severe cases of RSV though relatively rare can have morbid outcomes including respiratory failure and death. These cases have been shown to be accompanied by immune dysregulation. In this study we aimed to test whether the neutrophil to leukocyte ratio (a marker of an aberrant immune response) at admission can predict adverse outcome.
Methods: A retrospective cohort of RSV patients admitted to the TelAviv Medical Center from January 2010 to October 2020 was analyzed. Laboratory,demographic, and clinical parameters were collected. Two way analyses of variance (ANOVA) was used to test the association between NLR values and poor outcomes. ROC curve analyses was applied to test the discrimination ability of NLR.
Results: 482 RSV patients were included. The median age was 79 and 53% were females. A significant interaction was found between a poor clinical outcome and a sequential rise in NLR levels (positive delta NLR). ROC curve analysis was performed; The area under curve (AUC) of poor outcomes for delta NLR was (0.58) . Using a cut off of delta=0 (second NLR is equal to the first NLR value) Multivariate logistic regression identified a rise in NLR (delta NLR>o) to be a prognostic factor for poor clinical outcome, after adjusting for age, sex and Charlson comorbidity score with an odds ratio of 1.914 (P=0.014) and a total AUC of 0.63.
Conclusions: A rise in NLR levels within the first 48 hours of addmision can serve as a prognostic marker for adverse outcome.

2732 / #EV0811

LISTERIOSIS - THE NEED OF HIGH SUSPICION INDEX

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Case Description: Male, 90 years, with fever, 2-month anorexia and asthenia, abdominal pain and vomiting, and cognitive decline. Past history of heart failure, acute myocardial infarction and stroke.
Clinical Hypothesis: 90 years old men with fever and gastrointestinal symptoms has a probability of solid neoplasms and infectious diseases.
Diagnostic Pathways: Leukocytosis and neutrophilia makes us think on infectious of bacterial disease. So blood cultures can be positive at it was the case for gram positive rods, however the microbiologists often reports gram positive coccus. The cognitive symptoms justify lumbar puncture. Proteinorrachia and increased glucose, as well as pleocytosis makes the diagnosis of meningoencephalitis nevertheless all infectious etiologies were negative. But the *Listeria* monocytogenes is the pathogen most common in these situation, only high clinical suspicion can put the diagnosis.
Discussion and Learning Points: *Listeria* bacteremia occurs mostly in the elderly or immunocompromised. Blood cultures are recommended and because rate mortality is high (45%), empiric ampicillin should be done.

932 / #EV0812

RICKETTSIOSIS AS A FEVER ORIGIN

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Case Description: A 63-year-old male who went to the ER due to fever and myalgia with 15 days of evolution. He was febrile and had a petechial rash on his left upper limb and abdominal region, with a sensation of sandpaper to the touch. He denied focusing complaints or suspicious behavior of specific infectious-

 DOI: 10.12890/2022_V9Sup1

contagious diseases such as zoonoses. An analytical study showed increased inflammatory parameters. Thoraco-abdomino-pelvic CT scan did not reveal abnormalities. A screening for a range of viral and bacterial agents was performed, as well as urine and blood cultures. Ceftriaxone was empirically started but the fever persisted. Only the Weil-Felix reaction had a positive result, a rickettsiosis was diagnosed and antibiotic therapy was changed to doxycycline.
Clinical Hypothesis: Rickettsiosis.
Diagnostic Pathways: Final diagnosis was made by a positive Weil-Felix reaction.
Discussion and Learning Points: Fever of unknown origin is defined as a temperature equal to or higher than 38.3°C in two measurements, with the duration equal to or higher than 3 weeks or multiple episodes of fever within 3 weeks, uncertain diagnosis despite adequate clinical history and investigation. In developing countries the main cause is infectious diseases, while in developed countries is non-infectious inflammatory diseases. Investigation is based on a classic trilogy: infection, non-infectious inflammatory disease, neoplasia. This case highlights the importance of a complete study even when the patient does not reveal information that makes us suspect of infection by certain agents. Rickettsiosis is an entity present in clinical activity and, as it is easy to treat, it should be investigated in FUO.

1060 / #EV0813

NECROTIZING SOFT TISSUE INFECTION: URGENT DIAGNOSIS

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Case Description: A 53-year-old female evaluated in the ER after facial trauma. A CT scan showed bicondylar fracture with bilateral antero-internal dislocation. She was transferred to the Maxillofacial Surgery Service (MFSS). She was evaluated by Stomatology, having refused tooth extractions recommended due to the presence of caries. She was discharged on antibiotic. 24 hours later, she returned to the ER presenting tongue and neck edema and respiratory distress. Objectively: neck edema, patent airway, hemodynamic stability and no respiratory insufficiency. An anaphilaxy to the antibiotic was presumed, and she was treated accordingly. She remained under observation, and as she presented improvement she was discharged. She returned to the ER the day after presenting neck pain, hard edema and redness of cervical tissues predominantly on the right, respiratory difficulty and difficulty in swallowing. Objectively: patent airway and a swollen voice, hemodynamic stability and SIRS. A CT scan showed a necrotizing infection of the soft tissues of the neck. She was transferred to the MFSS for urgent treatment.
Clinical Hypothesis: Necrotizing soft tissue infection
Diagnostic Pathways: Final diagnosis was made by CT scan of head and neck.
Discussion and Learning Points: Necrotizing soft tissue infections are serious and rapidly progressive infectious processes with systemic repercussions and high mortality. The involvement of the head and neck is mainly associated with microorganisms in the oral cavity. Diagnosis can be difficult and a high degree of suspicion is required allowing rapid intervention. This case highlights the need for a high degree of diagnostic suspicion and the importance of timely diagnosis and treatment of these clinical entities.

181 / #EV0814

NEW ONSET ATRIAL FIBRILLATION IN A PATIENT WITH SCRUB TYPHUS: A RARE PRESENTATION

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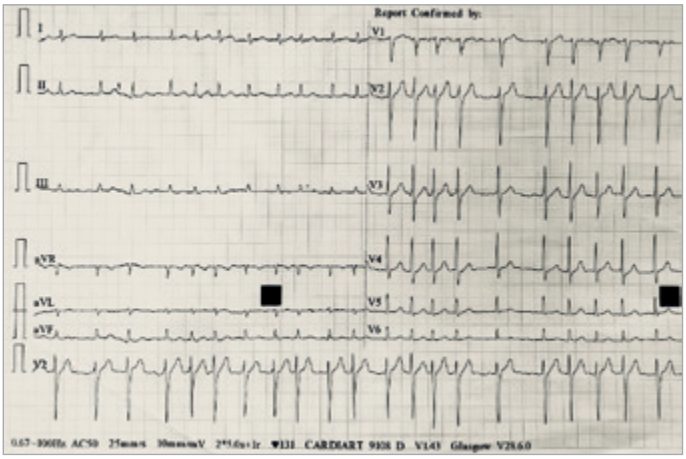
Case Description: A 52-year-old gentleman presented with a history of acute onset, continuous, moderate grade fever associated with chills, and gradual onset, progressive shortness of breath associated with palpitations. A black necrotic eschar was noted on examination. Pulse was assessed to be irregularly irregular. No prior history of cardiac disease, diabetes, hypertension or thyroid abnormality was elicited.
Clinical Hypothesis: Based on the patient's medical history, physical examination, and geographic prevalence, a few differentials were thought of 1) Infective endocarditis, 2) Viral myocarditis, 3) Scrub typhus.
Diagnostic Pathways: Workup for tropical infections was sent along with cultures. Electrocardiogram was suggestive of atrial fibrillation with a rapid ventricular response (Figure 1). Synchronised cardioversion was performed and rhythm reverted to sinus rhythm. A 2D echocardiogram did not reveal any abnormality. CPK-MB levels were elevated while serial troponin-I levels did not show any rise. With a negative workup for other tropical illnesses and a positive scrub IgM ELISA, a diagnosis of scrub typhus was made (Figure).
Discussion and Learning Points: Scrub typhus is a well-known acute febrile illness prevalent in tropical nations with varied clinical presentations. Cardiovascular complications are rare and can manifest in the form of arrhythmias, ischemic changes and QT prolongation. Scrub typhus-induced cardiovascular dysfunction should be thoroughly investigated utilizing cardiac biomarkers, electrocardiogram and 2D echocardiography for establishment of an accurate diagnosis and early institution of therapy.

DOI: 10.12890/2022_V9Sup1



#EV0814 Figure 1.

893 / #EV0815

A PATIENT WITH RECURRENT FEVER, SPLENOMEGALY AND NECROTIZING GRANULOMATOSIS OF THE SPLEEN AND LYMPLH NODES

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Case Description: A healthy 42-year-old male plumber was admitted to the hospital because of reccurent fever up to 39°C as the sole symptom for the last 3 months. The patient had already been admitted in an infectious disease clinic about a month ago but without having established a safe diagnosis. The fever didn't decline even after the initiation of empeiric intravenous antibiotic therapy. Imaging revealed splenomegaly and granulomatoses of the spleen along with enlarged abdominal lymph nodes. Reviewing the patient's medical history, he remembered having an enlarged lymph node on his left armpit before the initiation of the symptoms. Blood exams showed elevated inflamation markers and positive direct Coombs. A biopsy of the spleen was made and the histology showed necrotizing granulomatosis either due to tuberculosis or *Bartonella*. Antibiotic therapy for bartonella was administered based on his medical history. The fever resolved quickly and the IgM antibodies for bartonella henselae came positive.
Clinical Hypothesis: FUO with negative recent work-up and no responce to empeiric antibiotic therapy. Collagen, tumors and hematological diseases were ruled out. The imaging studies pointed out an abnormal spleen leading to biopsy of the organ that helped setting the diagnosis along with reevaluation of the patient's medical history.
Diagnostic Pathways: Detailed medical history Initial exams empiric therapy. No response to therapy led to medical history re-evaluation. Tissue sample with no safe diagnosis. Specific treatment was administered. Antibodies testing set the final diagnosis.
Discussion and Learning Points: The importance of a complete and accurate medical history on solving complex medical problems. How to take a therapeutic decision. Occurences of *Bartonella henselase*.

2510 / #EV0816

REACTIVATION OF LATENT TUBERCULOSIS AFTER CORTICOSTEROID TREATMENT. A PROBLEM OF THE PAST IN A COVID-19 PANDEMIC OF THE PRESENT

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Case Description: We report the case of a 55 year-old male with a history of pneumonia and left lung pleuritis in 1993, with no other relevant past history and without any long-term treatment. He is admitted due to a 10-days evolution of clinical symptoms, consisting in general malaise, fever and cough.
Clinical laboratory testing only showed increased acute phase reactants. with no other important results. Chest X-ray showed bilateral peripheral infiltrates and a residual injury in the left upper lobe. Subsequently PCR SARS-Cov2 was performed, with a positive result. During hospitalization, he received a prolonged corticosteroid treatment, antibiotic treatment and finally, anakinra. He was referred to review consultation at discharge: the patient was feeling better but he was still suffering from dyspnea on exertion and cough.
Clinical Hypothesis: We considered the mainly following options: pulmonary thromboembolism, pulmonary tuberculosis or the recent disesease called "post-COVID syndrome". We based on the symptoms of dyspnea, cough and a recent history of COVID infection and corticosteroid treatment to do the following diagnosis test.
Diagnostic Pathways: Blood test with D-dimer test, chest-CT, bronchoscopy with biopsies and cultures and Interferon-Gamma Release Assays (IGRA) were performed. Interferon-gamma test came back positive and *Mycobacterium tuberculosis* was isolated in bronchoalveolar lavage (BAL) samples. After final diagnosis, we introduced antituberculosis therapy.
Discussion and Learning Points: Reactivation of a latent tuberculosis infection (LTBI) is considered a "past problem" after the introduction of screening test for latent tuberculosis infection prior to starting biological drugs. Nevertheless, we can not forget that prolonged corticosteroid treatment is a immunosupressive treatment too, and a LTBI should be considered.

DOI: 10.12890/2022_V9Sup1

1829 / #EV0817

UNCOMMON COINCIDENCES

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Case Description: A 35-year-old man presented edema in lower extremities, fever, jauncide and coluria since four days, and symmetrical and migratory arthralgia in the carpus and ankle for 2 weeks. The patient presented no allergies; neither medical history. He had stable couple. He didn´t travel recently, eat spoiled food, neither herbal products. He presented a self-limited genital ulcer several weeks before. The physical examination demonstrated edema in lower extremities and jauncide. Laboratory test demonstrated GGT 235 U/L, FA 931 U/L, Total bilirubin 5,5 mg/dL, Direct bilirubin 3,67 mg/d, 24-hour urine protein excretion 20 g, hyperlipidemia and serum creatinine 1,67 mg/dL.

Clinical Hypothesis:

Nephrotic syndrome: Infectious (Poststreptococcal glomerulonephritis, TB, HVB, HVC, HIV, syphilis, CMV, EBV, malaria, toxoplasmosis) or autoinmune cause. Cholestatic hepatitis: Infectious (HVB, HVC, HIV, syphilis, CMV, EBV) or autoinmune cause.

Diagnostic Pathways: The evaluation was completed with metabolic and autoimmune analyses, proteinogram, abdominal ultrasonography and serological markers, with negative results. Kidney biopsy demonstrated membranous glomerulonephritis (phase I). RPR test was positive (1/64). ELISA and TTPA were positive too.

Discussion and Learning Points: In conclusion, the patient had a secondary syphilis with severe nephrotic syndrome, luetic hepatitis and polyarthritis. The combination of this three presentations is rare in the literature. We used one dose of benzathine penicillin G 2,4 million units intramuscularly. We suggest to make a complete anamnesis with epidemiological history to do easily the interpretation of microbiological test, and in some cases maybe we could avoid kidney`s biopsy and its complications. References: Yoshikawa K et al. Early syphilitic hepatitis concomitant with nephrotic syndrome. Clinical Journal of Gastroenterology. 2014;7(4):349-354.

1192 / #EV0818

INTO THE FEVER OF UNKNOWN ORIGIN: A RARE CAUSE OF GRANULOMATOUS HEPATITIS

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Case Description: The authors report a case of a 72-year-old man with previous diagnosis of bladder cancer admitted to the Internal Medicine Department for fever of unknown origin. He presented at least two fever spikes per day, especially in the late afternoon, associated with night sweats and occasional abdominal pain. There was no relevant epidemiologic exposure, except that he was under treatment with intravesical instillation of Bacillus Calmette-Guérin (BCG). His physical examination was unremarkable.

Clinical Hypothesis: The laboratory tests revealed mild anaemia and significant cytocholestasis. Acute phase reactants were slightly elevated with maximal sedimentation rate of 22mm/h. Thoracic computed tomography (CT) showed a miliary pattern that raised the suspicion of a disseminated tuberculosis.

Diagnostic Pathways: A bronchoscopy with bronchoalveolar lavage was obtained revealing the presence of non-tuberculosis mycobacterium DNA. Abdominal CT was normal but due to the altered laboratory parameters, a hepatic biopsy was performed, confirming the diagnosis of atypical mycobacterial infection with granulomatous hepatitis.

Discussion and Learning Points: Intravesical administration of BCG (a live attenuated strain of mycobacterium bovis) has become a mainstay of adjunctive therapy for bladder cancer. Disseminated mycobacterial infection with granulomatous hepatitis and/or pneumonitis is a rare complication of this therapy. This complication should be taken in consideration when patients that have been submitted to intravesical bcg instillations present with fever of unknown origin.

2289 / #EV0819

MULTIPLE INFECTIONS IN POST-COVID IMMUNOSUPPRESSION

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Case Description: The present paper aims to present a patient in whom the alteration of immune status following SARS-COV-2 pneumonia has led to unexpected symptoms. A 55-year-old male patient with multiple comorbidities (diabetus mellitus, hypertension, cardiomyopathy, obesity) and SARS-CoV-2 pneumonia in recent history presents to the emergency room for altered general condition, visual impairment in the right eye to the stage of light perception only and a tumor formation in the left shoulder.

Clinical Hypothesis: Immunosuppression in post-SARS-CoV-2-infection status .

Diagnostic Pathways: Objective examination: hypopyon and visual acuity to the stage of light perception only in the right eye, the tumor formation at the level of the left shoulder is accompanied by local erythema, elevated local temperature without functional impotence. There are no pulmonary rales, SpO2: 98% aa, rhytmic

 DOI: 10.12890/2022_V9Sup1

heart sounds, systolic murmur in the mitral and tricuspid foci, BP: 168/84 mmHg, HR: 89 bpm, feverish. Biologic results: positive presepsin, leukocytosis with neutrophilia, nitrate retention, moderate hyperkalemia. General surgery, ophtalmologic consultation, thoracic-abdomino-pelvic and cerebral and orbital CTs were performed.

Discussion and Learning Points: The general surgery consultation diagnosed right shoulder phlegmon. The ophtalmologic consultation diagnosed right eye iridocyclitis. The thoracic-abdomino-pelvic CT highlights multiple areas of nodular and micronodular densification specific to post-COVID-19 status, left ventricle thrombus while the cerebral and orbital CT did not provide additional data. Altered immunity status in post-COVID-19 period can lead to various infections, including eye infections (ophtalmologists point out the existence similar cases).

1805 / #EV0820

VISCERAL LEISHMANIASIS AND IMMUNE RECONSTITUTION INFLAMMATORY SYNDROME

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Case Description: A 40-year-old brazilian male was diagnosed with HIV-1 infection, with 14CD4+cells and 555,500 viral copies and started antiretroviral therapy (ART) with tenofovir/emtricitabine and dolutegravir, and cotrimoxazole. Two weeks later, he presented to the emergency room (ER) with fever (39.8ºC) and hepatosplenomegaly on physical examination. Analysis revealed pancytopenia, hepatic cytocholestasis and ÎCRP. Abdominal CT evidenced hepatosplenomegaly and splenic infarction. Blood, stool, bone marrow and bronchoalveolar lavage cultures and chest x-ray revealed no signs of opportunistic infection. Due to suspected immune reconstitution inflammatory syndrome(IRIS), prednisolone 20mg/day was started with fever resolution; he was discharged with a corticotherapy withdrawal scheme. After 1month of ART, immunological improvement was documented (86CD4+cells, 1161copies). Two weeks after discharge, he entered the ER with fever (40ºC) for 4days.

Clinical Hypothesis: Fever of unknown origin is a common challenge in HIV-infected-patients; the first clinical suspicion is that of an opportunistic infection but development of IRIS should also be considered.

Diagnostic Pathways: New analysis indicated pancytopenia, acute kidney injury, hepatic cytocholestasis and ÎCRP. Abdominal CT documented hepatosplenomegaly, enlarged kidneys and ascites. New bone marrow cultures revealed *Leishmania* spp and amphotericin-B was started. During hospitalization, he developed multiorgan failure and was transferred to the ICU, with improvement until discharge. He maintained Amphotericin-B once/month and cotrimoxazole; ART was replaced by abacavir/lamivudine and dolutegravir.

Discussion and Learning Points: HIV-infection impairs cell-mediated immune response to *Leishmania*; therefore, HIV-infected-patients are at higher risk of visceral leishmaniasis (VL). Some authors suggest that VL should be included as an AIDS-defining-condition, and cases have been reported after IRIS; however, they're rare and ART shouldn't be delayed.

vanGriensven J, et al.VL as an AIDS-defining condition.PLoS Negl Trop Dis.2014;8(7):e2916.

2246 / #EV0821

DALBAVANCIN FOR SUCESSFUL TREATMENT OF INFECTIVE ENDOCARDITIS CAUSED BY ENTEROCOCCUS FAECALIS

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Case Description: A 78-year-old man was admitted to hospitalization for the third episode of E.faecalis bacteremia over a one month period. He had a history of COPD, hyperlipidemia, tuberculous adrenal insufficiency, and a metastatic prostate cancer, carrying a bladder catheter for repeated episodes of urinary retention. *E. faecalis* was susceptible to all tested antibiotics. A new cardiac murmur was detected, so a transesophageal echocardiography was performed, showing a mobile image on the aortic valve, associated with a cavitated abscess. Ampicilin (2g/4h) plus ceftriaxone (2g/12h) was initiated and a biological valve replacement was made. Culture of the removed valved resulted positive, so treatment was extended for 6 weeks after surgery. 4 weeks later the patient was completely asymptomatic, so treatment was switched to dalbavancin (first dose of 1000 mg, followed by 500 mg one week later) on an outpatient basis, with no further relapses.

Clinical Hypothesis: We present here a case of successful treatment with dalbavancin of an infectious endocarditis caused by *E. faecalis*.

Discussion and Learning Points: Dalbavancin is a novel lipoglycopeptide with a high activity against several gram-positive pathogens. Its weekly administration allows an outpatient management of complicated infections requiring parenteral treatment, saving days of hospital stay and costs. It's currently only approved for the treatment of skin-structure infections, even if there is a growing experience in the "off-label" treatment of bloodstream infections and endocarditis. Despite this, to date there are only 10 published cases of *E. faecalis* endocarditis treated with dalbavancin, most of them successfully. With this report we would like to add our experience to the available literature.

 DOI: 10.12890/2022_V9Sup1

1040 / #EV0822

AN EMERGING CAUSE OF BACK PAIN

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Case Description: Male, 37 years old, born in Benin, resident in Portugal since 2009. In January 2021, onset of back pain aggravated with physical exertion and mobilization related to a work accident – a fall from a height of scaffolding from a height of two floors – motivating between January and in April several visits to the Health and Emergency Service Center. History of post pulmonary tuberculosis status (followed anti-bacillary therapy for 9 months) and arterial hypertension. Three months later, due to pain worsening with gait instability and lower limb paresthesia, without other signs or symptoms, he was hospitalized.

Clinical Hypothesis: Bone fracture; Pott's disease

Diagnostic Pathways: The CT-Dorsal spine examination documented a pathological fracture of the D8 vertebra associated with an osteolytic lesion D7-D8, involving the two vertebral bodies with involvement of the spinal cord. The anatomopathological examination revealed chronic, granulomatous, non-necrotizing inflammation. Bone tuberculosis was admitted and anti-bacillary therapy was started (rifampicin, isoniazid, pirazinamide and ethambutol). He underwent orthopedic surgery and the Zhiel-Nielsen examination of the surgical specimen revealed acid-alcohol resistant bacilli. It also continues to comply with the therapeutic scheme and rehabilitation program.

Discussion and Learning Points: Dorsolomablgia is one of the main causes of dysfunction in patients under 50 years of age. The etiologies are varied, among infectious, vertebral tuberculosis, with an incidence until 3% of all cases of tuberculosis, is a destructive form. We underline the importance of suspecting this etiology, with or without specific systemic and neurological semiology, since early diagnosis and prompt treatment are necessary to minimize deformity and to prevent disability.

346 / #EV0823

DETERMINATION OF HIV AND HEPATITIS C ANTIBODIES IN DRIED BLOOD SPOT SAMPLES IN A GROUP OF FEMALE SEX WORKERS

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Background and Aims: The objective was to estimate prevalence of hepatitis C virus (HCV) and human immunodeficiency virus (HIV) infections from dried blood spots (DBS) in a group in prostitution situation, attended by Association for the Prevention, Reintegration and Care of Prostituted Women (APRAMP) of Salamanca.

Methods: A prospective observational study carried out on a group of sex workers voluntarily attended in APRAMP's centers or mobile units in Salamanca, Zamora and Ávila between May 2019 and February 2020. Epidemiological and clinical data were collected using standardized form and a DBS sample is extracted with prior informed consent.

Results: 210 persons were included, all of them women (100%). The mean age was 35.8 years (SD 9.9), with a median stay in Spain of 24 months. None had a history of HCV or HIV infections or clinical signs of advanced immunodeficiency or chronic liver disease. 55.3% of studied were South American, 17.1% came from Eastern Europe, 18.2% were Latin American, and to a lesser extent, from Western Europe, Africa and Asia. Colombia, Brazil and Dominican Republic represent the nationality of 54.8% of women studied. Approximately 4% had Spanish nationality. All DBS samples were negative for HCV. Anti-HIV antibodies were detected in one women using DBS samples (0.48%). This result was verified with the reference test later.

Conclusions: Most of female sex workers are immigrants. The screening using DBS found a low prevalence of HCV and HIV infections in a risk group. Screening for sexually transmitted infections is a priority, in addition to promoting prevention measures, health education and social integration.

537 / #EV0824

HEMOPHGOCYTIC LYMPHOHISTIOCYTOSIS IN CROHN'S DISEASE ASSOCIATED TO CITOMEGALOVIRUS (CMV) OR EPSTEIN-BARR VIRUS (EBV)

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Background and Aims: We want to know the clinical, epidemiological and analytical characteristics of the appearance of hemophagocytic lymphohistiocytosis (HLH) in our patients

Methods: Series of three cases of patients with Crohn's disease(CD). We analyse basal features of the patient and the IBD. The way of presentation clinical-analytic,diagnostic methods used and response to treatment.

Results: The three patients with HLH were males with an average age of 35 years old. Two of them were treated with azathioprine and the rest with infliximab.The three patients presented high fever, hepatosplenomegaly, cytopenia, hypertriglyceridemia and high levels of ferritine when they came in. The bone marrow aspiration was positive in two of them. Macrophagic activation and erythrophagocytosis were appreciated. Microbiological diagnosis was performed using PCR techniques in blood. In two of

 DOI: 10.12890/2022_V9Sup1

the patients the PCR was positive for CMV and the third, positive for EBV. In two patients it was produced for a primoinfection (Cases 1 and 2) while the other one for CMV reactivation.The three patients were treated with ganciclovir as well as standard treatment with corticotherapy, ciclosporine and etoposide.The three patients evolved favourably.
Conclusions: All patients who have IBD with immunosuppressive treatment who show high fever and cytopenia should be monitored for HLH. The early treatment influences the prognosis of this disease, may check in these cases that showed good performance thanks to the early establishment of it. We believe it is important to perform a serum bank of the main viruses (including EBV/ CMV) before treatment for IBD.

2507 / #EV0825

SEVERE PLASMODIUM MALARIAE INFECTION – A RARE CAUSE OF ANAEMIA

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Case Description: A 60-year-old male was sent to the Emergency Department for changes in his routine blood tests: haemoglobin 7.6 g/dL, ferritin 6460 ng/mL, erythrocyte sedimentation rate 120 mm, and C-reactive protein 17.2 mg/dL; a blood smear showed multiple (non-quantified) *Plasmodium malariae* trophozoites and schizonts, with no other changes. He had no relevant history other than two previous episodes of malaria, the last happening three months before and for which he received treatment. He had been to Angola for a year and had returned to Portugal two weeks before. For the previous month, he complained of intermittent sweating and tremor, along with weight loss, but denied fever. A new laboratory evaluation in the Emergency Department showed severe anaemia, likely haemolytic, with haemoglobin 6.8 g/dL, lactate dehydrogenase 438 U/L, and normal bilirubin.
Clinical Hypothesis: Severe *Plasmodium malariae* infection, criteria fulfilled by severe anaemia.
Diagnostic Pathways: Haemolytic anaemia was confirmed, with unmeasurable haptoglobin. The patient was given a single dose of quinine and doxycycline and then switched to a combination of artemether and lumefantrine, which he took for four days with full clinical resolution. Other causes for haemolytic anaemia and unexplained weight loss were excluded, including auto-immunity, other infections, and occult malignancy. On follow-up after one month, his haemoglobin was 15 g/dL.
Discussion and Learning Points: Severe *Plasmodium malariae* infections are exceedingly rare, especially in non-endemic countries. While this must be considered in travellers, other causes must also be searched for. Despite guidelines indicating that treatment be offered for three days, the duration of treatment is debated.

2511 / #EV0826

TUBERCULOSIS, A MIMICKER OF NEOPLASTIC DISEASE

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Case Description: A 78-year-old woman was admitted after a fall with head trauma. She had hypertension, atrial fibrillation, epilepsy, and recent squamous cell carcinoma of the scalp. Laboratory analyses showed no accountable changes. Head CT scan and MRI showed a cystic formation in the cranial base, extending from the occipital bone to the sphenoid bone, considered to be a benign tumour after discussion with Neurosurgery. She was admitted to a ward for social reasons.
Clinical Hypothesis: Disseminated tuberculosis.
Diagnostic Pathways: She showed continuous neurologic and clinical deterioration and started having morning fevers. Revision of imaging from six weeks earlier, when she was treated for the skin cancer, showed the lesion was absent by then. Laboratory evaluation demonstrated normochromic, normocytic anaemia (haemoglobin 8.5 g/dL), lymphopenia (400/µL), high C-reactive protein (7.9 mg/dL), hyponatraemia (133 mmol/L), and high erythrocyte sedimentation rate (111 mm). Body CT scan showed multiple deep lymphadenopathies and a micronodular pattern on both lungs. A spinal tap had no changes and was negative for tuberculosis by culture and PCR. Bone marrow biopsy and bronchoalveolar lavage were positive for Mycobacterium tuberculosis, respectively, by microscopy and culture, and by PCR. First-line antituberculous therapy was started empirically after all specimens were collected, with prompt improvement in her general status.
Discussion and Learning Points: This patient had a picture suggestive of tuberculosis, but the imaging initially detracted attention from this diagnosis. This case highlights the importance of considering alternative causes when a diagnosis has not been reached. Tuberculosis is a common mimicker of neoplastic disease and should be remembered, especially in high-incidence areas.

1833 / #EV0827

BEYOND AN UTI – A CASE OF DISSEMINATED MSSA INFECTION

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Case Description: 83 year-old Caucasian male, past medical history relevant for diabetes and hypertension. Presented to the emergency department for 1-day history of fever and strong odor concentrated urine and 3-weeks of worsening right shoulder pain. Physical examination was unremarkable. Laboratory workup showed leukocytosis, increased C-reactive protein and leukocyturia.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: The diagnosis of urinary tract infection was made, and the patient was admitted to the Internal Medicine ward.
Diagnostic Pathways: Urine and blood cultures grew methicillin-sensitive *Staphylococcus aureus* (MSSA). Right shoulder ultrasound showed rotator cuff rupture, articular destruction and exuberant inflammation. Synovial fluid analysis was compatible with septic arthritis and samples obtained from arthroscopic drainage grew MSSA. During the hospitalization the patient reported lumbar pain. Lumbar x-ray showed L3 fracture. Lumbar MRI displayed abnormalities consistent with L3 osteomyelitis and several small psoas paravertebral abscesses, which grew MSSA after CT-guided aspiration. Transesophageal echocardiogram was performed and excluded endocarditis. Brain MRI showed no signs of CNS complications. Once stable the patient was transferred to domiciliary hospitalization to complete 8-weeks of antibiotic treatment.
Discussion and Learning Points: *Staphylococcus aureus* (SA) is a pathogen with extremely high prevalence and a leading cause of bacteriemia. SA bacteriemia carries a high risk of septic metastases leading to disseminated disease, the clinical spectrum being secondary to the invaded organs. Manifestations of disseminated infection may be difficult to recognize, and thus contribute to the development of complications and relapsing bacteriemia due to inadequate treatment. Early identification of the disease, its course and potential complications has a positive effect on prognosis and morbidity.

1303 / #EV0828

DIARRHEA AND WEIGHT LOSS IN SOLID ORGAN TRANSPLANT RECIPIENT.

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Case Description: A 26-old-male with personal history of transposition of great arteries previously intervened by Fontan thecnique that failed, received a heart transplantation in March 2021 with a complicated postoperative period that lasted 6 months until discharge. After two weeks at home, he resorted to the emergency room for diarrhea, abdominal pain and weight loss. *Clostridioides difficile* toxin was positive, but symptoms persisted despite treatment with oral vancomycin for 14 days. He didn't have analytical alterations and abdominal radiograph was normal.
Clinical Hypothesis:
CMV gastrointestinal disease; acute viral or parasitic diarrhea; intestinal lymphoma.
Diagnostic Pathways: Detection of bacteria, Rotavirus, Norovirus, *Giardia lamblia*, *Cryptosporidium* and *Strongyloides stercoralis* in stool was negative.
Serological status: CMV IgG+ serology with undetectable viral load. EBV VCA-IgG/IgM and EBNA was negative but viral load was positive (28,948 UI/ml). Computed tomography of the abdomen: Pathological thickening of the terminal and distal ileum, the cecum and the colon with adenopathy and two 5 cm implants. Rectosigmoidoscopy: Multiple red pseudonodulations without ulcerations or pseudomembranes, interspersed with areas of normal mucosa. Sigma and rectum biopsy: Diffuse non-germinal center variant large B cell lymphoma, CD30 +, EBV +, with high proliferative index, compatible with a monomorphic post-transplant lymphoproliferative process.
Discussion and Learning Points: In the present case, we present a young patient with diarrhea and constitutional syndrome after 6 months of heart transplant who was diagnosed of post-transplantation lymphoproliferative disorder associated to EBV. It is in an infrequent but life-threatening entity, that should be part of the diagnostic hypotheses when facing a solid organ transplant patient presenting systemic symptoms.

1803 / #EV0829

DUAL THERAPY WITH DOLUTEGRAVIR/ LAMIVUDINE IN TREATMENT-NAÏVE HIV PATIENTS: A REAL-LIFE STUDY

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Background and Aims: Clinical trials have demonstrated the non-inferiority of a two-drug antiretroviral therapy with dolutegravir (DTG)/lamivudine (3TC) compared to a standard triple therapy with DTG/tenofovir disoproxil fumarate (TDF)/emtricitabine (FTC) in naïve HIV patients – however, its performance has not been analyzed in regular clinical practice. The main aim of this study is to evaluate the efficacy and safety of dual therapy with DTG/3TC at 24 weeks of treatment as initial therapy in real-life HIV patients.
Methods: Retrospective cohort study of HIV patients followed up at Hospital La Princesa. We selected all naïve patients who started DTG/3TC as initial therapy between September 2018 and February 2021. Demographic, clinical, immunological and virological variables were analyzed, as well as the efficacy and safety of dual therapy at 6 months of treatment.
Results: A total of 40 patients were included, 95% of whom were male, with a median age of 31.5 years. 37.5% used recreational drugs. The median CD4 count and plasma viral load (PVL) at diagnosis were 406 cells/mm^3 and 87500 copies/ml, respectively, and 5 subjects (12.5%) had acquired immunodeficiency syndrome (AIDS). Regarding the efficacy of dual therapy, 94.3% of patients achieved a PVL <50 copies/ml and 71.4% had an undetectable PVL (<20 copies/ml) after 6 months of treatment. There were no major

 DOI: 10.12890/2022_V9Sup1

adverse effects requiring replacement of DTG/3TC with another regimen.
Conclusions: In real life, dual therapy with DTG/3TC is safe and effective for the treatment of antiretroviral-naïve HIV patients, a similar result to previously published randomized clinical trials.

1079 / #EV0830

LEGIONELLA PNEUMONIA IN THE SARS-COV-2 ERA

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Case Description: We present the case of a 51-year-old male with medical history of hypertension, obesity, current smoking and SARS-CoV-2 infection with discharge criteria 9 days before he attended to the A&E, where he was assessed because of a 2-day shortness of breath, high fever (40,8ºC), dry cough and myalgia. On admission he was drowsy, febrile, tachycardic and tachypneic with FiO2 60% with SatO2 94%.
Clinical Hypothesis: The diagnosis of CAP or PE were initially considered.
Diagnostic Pathways: Bloods revealed hyponatremia 125mmol/L and elevated inflammatory markers (CRP 50.3 mg/dL, PCT 1.56 ng/mL and LDH 841 U/L). Angio-CT thorax revealed total consolidation of the right inferior pulmonary lobe, with no signs of pulmonary embolism. The patient started co-amoxiclav and azithromycin after samples of blood and sputum were collected. Evolution with rapid clinical deterioration with need of mechanical ventilation and admission in ITU. After a positive *Legionella antigenuria* and isolation of this microorganism in sputum, Co-amox was held and the patient completed 14 days of azithromycin, with clinical improvement and extubation after 7 days, successful oxygen weaning and discharge home.
Discussion and Learning Points: *Legionella pneumonia* represents 2-9% of CAP, with common risk factors such as age, smoking, immunosuppression and exposition to contaminated water. In the era of COVID-19, it's particularly important to think about other differential diagnosis given such similar symptoms with other infections, as the case of other agents causing pneumonia like Legionella. Just as happened with the Influenza A pandemic, there are new studies showing the existence of co-infections and secondary infections after SARS-CoV-2 infection, shouldn't other agents be forgotten.

538 / #EV0831

CIRRHOSIS, HEPATITIS C AND SYPHILIS: CONCOMITANT PRESENTATION AND COMPLICATIONS

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Case Description: A 52-year-old man with a long-term history of excessive drinking, drug use and untreated hepatitis C presented to the ER with a progressive history of dyspnea, ascites and lower extremity edema and melaena in the prior week. Additionally, ulcers of the penis, desquamative lesions of the palms and soles, petechiae of the thighs and discoloring of the legs were found during the physical examination.
Clinical Hypothesis: While cirrhosis (with esophageal varices) could explain all the patients symptoms, secondary syphilis, cryoglobulinemia and porphyria cutanea tarda were all postulated given the mucous/cutaneous findings of the physical examination.
Diagnostic Pathways: Blood work, imaging studies and paracentesis revealed active syphilis and hepatitis C, cryoglobulinemia, hepatic insufficiency, portal hypertension (including esophageal varices) and hepatocellular carcinoma. Treatment with beta-blocker, diuretic, doxycycline and glecaprevir/pibrentasvir ameliorated the symptoms and signs. Oncologic treatment was delayed given the Child Pugh C classification of cirrhosis. Discoloration of the legs did not resolve with treatment and was interpreted as stasis dermatitis and/or porphyria cutanea tarda.
Discussion and Learning Points: Cirrhosis is the 5th cause of premature death in Portugal. The prevalence of hepatitis C is >1%. Thus, it is essential to keep these in mind when seeing patients and to know their clinical manifestations and possible complications. This case exemplifies the panoply of clinical manifestations of cirrhosis, highlighting two of its etiologies (alcoholic and hepatitis C) as well as its natural history (hepatocellular carcinoma). It also alerts to two possible complications of hepatitis C (cryoglobulinemia and porphyria cutanea tarda) and identifies secondary syphilis as a confounder of the latter.

1606 / #EV0832

COMPLICATED INTESTINAL AMEBIASIS WITH HEPATIC ABSCESS AND PLEURAL EFFUSION IN A 28-YEAR-OLD PATIENT: A CASE REPORT.

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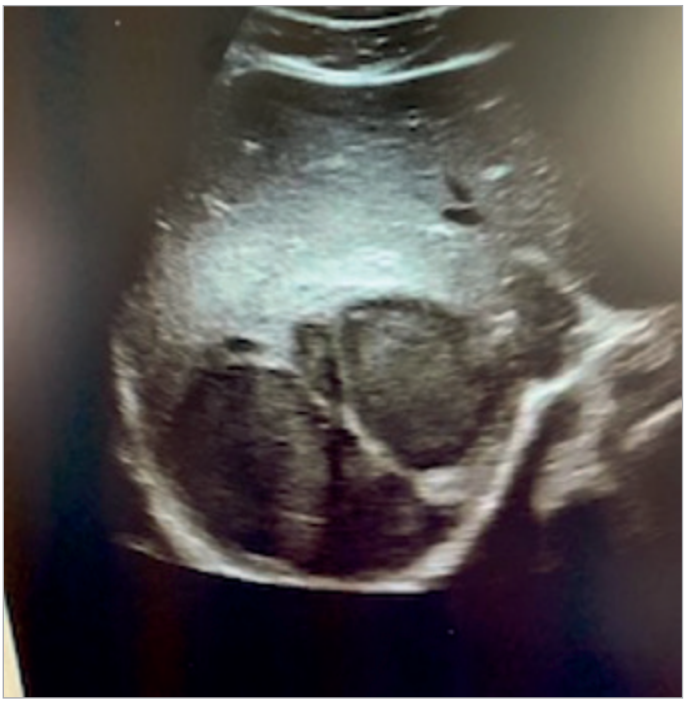
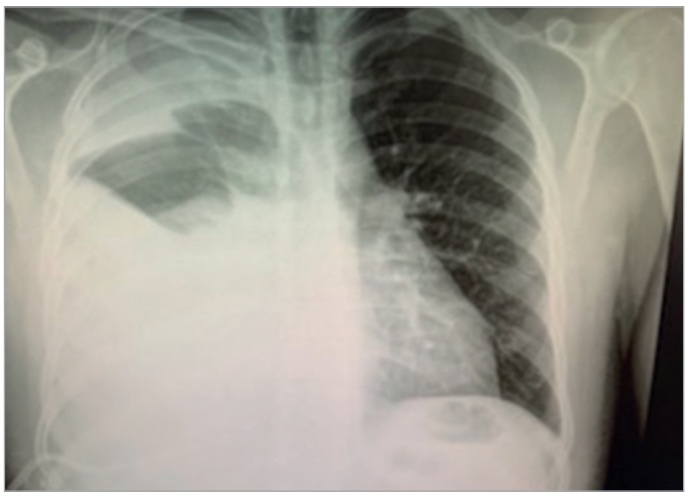
Case Description: A 28-year-old caucasian male presented with a month history of malaise, intermittent fever, diarrhea of about 4-5 liquid stools a day, weight loss and pain on deep breaths. No surgical or medical history. No recent trips. No risky sex.

DOI: 10.12890/2022_V9Sup1

Abdominal ultrasound showed several hypoechoic lesions the right liver lobe, the largest of which are approximately 7 and 9 cm in size. Chest X-ray showed right pleural effusion.
Clinical Hypothesis: Differential diagnoses may include pyogenic abscess, hydatid cyst, acute cholecystitis, cholangitis, neoplasms, or metastases.
Diagnostic Pathways: A gram smear of the liver mass aspirate showed no bacteria. Culture of the aspirate showed no growth. Multiple sets of blood cultures showed no growth. Stool culture and antigen testing for *Entamoeba histolytica* in stool was negative. The serology test for *Entamoeba histolytica* IgG was positive which confirm the diagnosis.
Discussion and Learning Points: The patient was treated with metronidazole, liver abscess and pleural drainage. He recovered well with resolution of the abscess in 20 days control CT scan. Intestinal amebiasis caused by the protozoan Entamoeba histolytica is higly prevalent in low-income countries and travellers returning from endemic areas. Transmission mainly occurs fecal-oral route or by contaminated water. About 90% of infections are asymptomatic the remaining produce clinical ranging from dysentery to extra-intestinal infection which most often involves liver. Liver abscesses occurs as a complication in 1% of cases. Pulmonary complications are usually secondary to a liver abscess as also seen in the present case, it occurs in about 2-3% of patiens with invasive amebiasis and increases mortality up to 35%.



#EV0832 Figure 1.



#EV0832 Figure 2.

1006 / #EV0833

BODY TEMPERATURE MONITORING FOR FEVER DETECTION AND FORECASTING: MOVING BEYOND THE STANDARD TEMPERATURE MEASUREMENTS AT THE BEDSIDE.

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Background and Aims: Body temperature of hospitalized patients is usually measured non-invasively once per shift. However, since it changes over time, continuous monitoring may provide more information. In this work, we assess the ability of a system of real-time body temperature monitoring to identify and forecast fever peaks.
Methods: 51 patients admitted to a general Internal Medicine or Infectious Diseases ward because of an infection (suspected or confirmed) had continuous body temperature monitorization at the external auditory canal and the forearm (one measurement per minute). The study was approved by the hospital's Ethical Committee and informed consent was collected from all patients at inclusion. A fever peak was defined as a measurement equal or greater than 38ºC. For the continuous monitorization, a measurement above 37.5ºC with a gradient greater than 1ºC in the previous hour was also considered as fever.
Results: 17 cases provided data suitable for analysis. Two patients had fever with the standard measurements (4 spikes) and 10 patients had fever with the monitorization system (14 spikes), with a mean of 0.59 spikes lost per patient. The predictive model anticipated the beginning of 11 spikes (79%), with a range between 5 and 58 minutes. In 14 cases, temperatures recorded by standard measurements were higher than those obtained with continuous monitorization. Twenty cases could not be analyzed due to lost or defective data.

 DOI: 10.12890/2022_V9Sup1

Conclusions: Continuous monitoring of body temperature is effective to detect fever when it goes unnoticed with standard measurements and to forecast fever peaks with a range of up to an hour.

2377 / #EV0834

FEVER OF UNKNOWN ORIGIN IN A YOUNG ADULT PATIENT: A RIDDLE TO SOLVE

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Case Description: Fever of unknown origin is a temporary febrile illness accompanied by non-specific symptoms, which can be due to various factors. The evaluation of the patient requires study of the medical history, physical examination and laboratory evaluation.
Clinical Hypothesis: A 32 year-old farmer without any known medical history and regular meditation visited the emergency department with 10 days fever, shivering, muscle pains and headache.
Diagnostic Pathways: Laboratory tests showed elevated hepatic parameters, elevated CRP, thrombocytopenia and hypokalemia. Abdominal ultrasound and X-rays did not show anything significant. The patient was also tested negative for hepatitis A,B,C , HIV, *Brucella spp* and *Salmonella spp.* The patient's serum sample was also tested positive for IgM and IgG antibodies against *Leptospira spp*. using enzyme-linked immunosorbent assay (ELISA).
Discussion and Learning Points: Leptospirosis is a fatal spirochaetal zoonose common in rural areas and remains a major public health issue in many developing countries. Mainstays of treatment are still tetracyclines and beta-lactam/cephalosporins. The main method of dealing with the disease prevention such as source reduction, environmental sanitation, more hygienic work-related practices.

2411 / #EV0835

CEREBRAL VENOUS THROMBOSIS RELATED TO ADVERSE EFFECT OF COVID-19 VACCINE OR SINUS INFECTION

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Case Description: A 71-year-old woman goes to the emergency room for occipitocervical headache after the third dose of Moderna vaccine, accompanied by odynophagia and left earache without fever. In recent days progressive facial edema of left periorbital predominance that produces exophthalmos. Cranial and facial CT shows small intraluminal defects in the left jugular, suggestive of venous thrombosis and venous CT angiography asymmetry of transverse sinuses. Sphenoid sinusopathy. Anticoagulation with LMWH and antibiotic therapy are initiated.
Clinical Hypothesis: Cerebral venous thrombosis secondary to 1) Vaccine adverse reaction, 2) Infection (left sphenoid sinusitis).
Diagnostic Pathways: Fever and limitation of left eye movements, mydriatic pupils, alteration of facial sensitivity and bilateral papilla edema. Urgent CT reports focus of left parietal bleeding suggestive of venous infarction with left jugular thrombosis with probable septic thrombosis of the cavernous sinus. Anticoagulation is maintained and antibiotic coverage is extended. Persistence of headache, MRI reports left cavernous sinus thrombosis secondary to infectious process in the ipsilateral sphenoid and ethmoid region. Finally, surgical drainage of the left sphenoid sinus whose biopsy showed accumulations of fungi suggestive of Aspergillus.
Discussion and Learning Points: Treatment of CVT should be started as soon as the diagnosis is confirmed and consists of treatment of the underlying cause if known and therapeutic anticoagulation, even if there is intracranial hemorrhage with LMWH in the acute phase. Although infectious causes were in the past the most frequent causes of CVT, they are currently responsible for only 6-12% of cases. Overall mortality is 15%, with the main cause of death being transtentorial hernia secondary to hemorrhagic lesion.

825 / #EV0836

TUBERCULOUS MENINGITIS

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Case Description: A 72-year-old woman presented to the emergency department (ED) with vomiting and myalgia, without fever or other signs of infection; physical examination was unremarkable. Laboratorial evaluation showed evidence of diabetic ketoacidosis and the patient was admitted to an intermediate care unit three days later. One day after the admission, fever and cough were observed. A respiratory infection was diagnosed, and amoxicillin/clavulanate was administered. One day later, the patient maintained fever, and a depressed level of consciousness, with central facial palsy.
Clinical Hypothesis: Tuberculosis remains leading cause of death in a global scale, and meningitis comprises 1–2% of incident cases of active tuberculosis. Approximately one half of all tuberculous meningitis infections lead to severe disability or death.
Diagnostic Pathways: CT-scan was normal, and a lumbar puncture obtained cerebrospinal fluid with hyperproteinorrhachia (220 mg/dL), hypoglycorrhachia (38 mg/dL) and 16 leukocytes/μL (65% mononuclear and 35% polynuclear). Three days later, because of increased severity of the depressed level of consciousness, the patient was admitted to an intensive care unit. A brain MRI

 DOI: 10.12890/2022_V9Sup1

was performed, revealing multiple nodules and hydrocephaly, suggestive of tuberculous meningitis. Antituberculosis therapy was started. Days later, a PCR test for *Mycobacterium tuberculosis* from de CSF was positive. Weeks later, a culture of the CSF in Löwenstein-Jensen medium grew *Mycobacterium tuberculosis*. Antituberculosis therapy was maintained, and slight neurological improvement occurred during the next six months.
Discussion and Learning Points: Prompt initiation of anti-tuberculosis treatment for all suspected cases remains a key aspect of management, given the powerful relationship between disease stage at treatment initiation and long-term outcomes.

1959 / #EV0837

TUBERCULOUS POLYSEROSITIS IN A 16 YEAR OLD PATIENT

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Case Description: A 16-year-old female patient with fever, asthenia, increased abdominal volume, dyspnea, cough, ascites, and pleural and pericardial effusions, presented with a rapid progressive worsening of her general condition with hemodynamic instability, requiring hospitalization at the ICU. On admission, the leukometry was normal (but with a shift to the left), transaminases a little high and CRP elevated (18.40). Despite performed antibiotic regimens, the condition evolved with anemia, elevated transaminases, and progressive CRP increase.
Clinical Hypothesis: Polyserositis in etiology investigation.
Diagnostic Pathways: Rheumatic diseases were discarded and serology for various viruses were negative. Chest, abdomen and pelvis Computed tomography (CT) showed an area of consolidation in the right lung base with small pleural effusion, abdomen with ascites and hepatosplenomegaly. Ascitic fluid analysis suggested peritoneal disease. The peritoneum biopsy showed giant Langhans cells and caseous necrosis, compatible with tuberculosis. Treatment with RIPE (rifampicin, isoniazid, pyrazinamide and ethambutol) was started, with significant clinical improvement. The patient was discharged from the ICU to the nursery after 8 days, and discharged at the sequency. The 6 months RIPE scheme was performed, with cure criteria.
Discussion and Learning Points: Polyserositis has many etiologies, including tuberculosis, endemic disease in Brazil. Tuberculous polyserositis is an uncommon form of extrapulmonary tuberculosis and is characterized by the involvement of more than one serosa (pleural, pericardial or peritoneal), causing effusions. This case report alerts to consider this uncommon diagnosis (polyserositis caused by tuberculosis) as diferencial diagnoses in ascites, avoiding serious and fatal consequences.

367 / #EV0838

CLINICAL UTILITY OF REPURPOSING A SHORT COURSE OF HEPATITIS C DRUGS FOR COVID19. A RANDOMIZED CONTROLLED STUDY

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Background and Aims: Preliminary data suggests a potential therapeutic benefit for the hepatitis C drugs, sofosbuvir (SOF) and daclatasvir (DCV) for the treatment of COVID-19. The aim of this study was to evaluate efficacy of a short course of dual sofosbuvir/daclatasvir in patients with COVID-19.
Methods: 89 consecutive eligible patients were randomly assigned to two treatment groups. The experimental group was treated with the SOC therapy (as per the Egyptian ministry of health protocol) in addition to one 400 mg tablet sofosbuvir and one 60 mg daclatasvir daily for 10 days; while the control group was treated with the SOC therapy alone. Baseline clinical data were measured and followed up for 21 days. Data were compared between the two treatment groups.
Results: The proportion of cumulative clinical recovery in the experimental group at day 21 was numerically greater than the control group [40/44 (91%; 95%CI: 78.8-96.4%) versus 35/45 (77.8%; 95%CI 63.7-87.5%)]. The Hazard Ratio (HR) for time to clinical recovery adjusted for baseline severity, estimated using a Cox-regression model, is statistically significant: HR: 1.59 (95%CI: 1.001-2.5). Concordantly, the experimental group also showed trends for greater improvement in the mean 8-points ordinal scale score, the mean severity of lung lesions score and the case fatality rate (4.5% versus 11.1%). No serious or severe adverse events were reported in both groups.
Conclusions: This study provides support for the potential benefits and safety of sofosbuvir combined with daclatasvir for the treatment of COVID-19.

928 / #EV0839

DESCRIPTIVE STUDY OF PERIPHERAL SEPTIC ARTRITIS IN NATIVE JOINT IN A SECOND LEVEL HOSPITAL IN MADRID

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Background and Aims: To analyze the epidemiological, clinical and microbiological characteristics of peripheral septic arthritis in our health area.
Methods: A retrospective, observational and descriptive study was performed of all cases of peripheral septic arthritis involving native joint in patients older than 18 years old, with positive synovial fluid culture, from January 1st 2002 to May 1st 2021. Data was analyzed by SPSS V.18.

 DOI: 10.12890/2022_V9Sup1

Results: Of 48 patients included: 36 were male (75%), median age was 55 (41-71), 11 were diabetic (23%), 6 had rheumatoid arthritis (12.5%), 5 were actively smoking (10.6%), 4 had chronic kidney disease (8.3%) and 4 had chronic liver disease (8.3%). The knee was the most affected joint (22 cases, 45.8%). In 85% of the patients, Gram positive bacteria was isolated: 2 cases (51.2%) of methicillin-sensitive *Staphylococcus aureus* (MSSA) and 9 cases (22%) of methicillin-resistant *Staphylococcus aureus* (MRSA). In 6 patients Gram negative bacteria was isolated: 3 cases of *Klebsiella pneumoniae*, 2 of *Serratia marcescens* and 1 of *Pseudomonas aeruginosa*. Most received monotherapy antibiotic treatment with Penicillins (27.1%), glycopeptides (25%), quinolones (18.8%) or cephalosporins (10.4%). Median time of treatment was 19 days (14-30), and mean length of hospital stay was 18 days (12-32). Three patients died in which MRSA was isolated.

Conclusions: This series is found to be the largest in literature of septic arthritis involving native joints. The most relevant predisposing factors were diabetes mellitus and rheumatoid arthritis. Staphylococcus aureus was the main etiological agent, with high percentage of MRSA in our series. Treatments have not substantially changed in recent years.

1527 / #EV0840

EFFECTIVENESS AND SAFETY OF PANGENOTYPIC REGIMENS IN THE MOST DIFFICULT TO TREAT POPULATION OF GENOTYPE 3 INFECTED CIRRHOTICS.

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Background and Aims: There is still limited real-world experience data on the pangenotypic regimens in patients with genotype (GT) 3 hepatitis C virus (HCV) infection and liver cirrhosis considered to be difficult-to-treat in the interferon era. The current study aimed to evaluate the efficacy and safety of pangenotypic options in this population.

Methods: The analysis included patients selected from the EpiTer-2 database, a large retrospective national real-world study evaluating antiviral treatment in 13,554 individuals in 22 Polish hepatology centers.

Results: A total of 236 patients with mean age 52.3±11.3 years and male predominance (72%) selected from EpiTer-2 database were included in the analysis; 72% of them were treatment-naïve. The majority of patients (55%) received the combination of sofosbuvir/velpatasvir (SOF/VEL), 71 without and 58 with ribavirin (RBV), whereas the remaining 107 individuals were assigned to glecaprevir/pibrentasvir (GLE/PIB). The effectiveness of the treatment following GLE/PIB and SOF/VEL regimens (94% and 93%) was higher compared to SOF/VEL+RBV option (79%). The univariate analysis demonstrated the significantly lower sustained virologic response in males, in patients with baseline HCV RNA≥1,000,000 IU/mL, and among those who failed previous DAA-based therapy. The multivariate logistic regression analysis recognized only the male gender and presence of ascites at baseline as the independent factors of non-response to treatment. No safety issues related to pangenotypic regimens were documented.

Conclusions: The pangenotypic regimens are the most effective and safe therapeutic options for HCV GT3 infected patients with liver cirrhosis. However, the DAA-experienced males with hepatic decompensation still remain a difficult-to-treat population.

DOI: 10.12890/2022_V9Sup1

AS10. KIDNEY AND URINARY TRACT DISEASES

936 / #EV0841

APPLYING OF COMBINED BIOMARKER TEST IN EARLY DIAGNOSIS OF ACUTE KIDNEY INJURY IN PATIENTS WITH ACUTE CARDIAC DISEASES

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Background and Aims: To explore the role of biomarkers in early diagnosis of AKI and their prognostic values in patients with acute cardiac diseases.

Methods: 109 patients (51 with acute decompensated heart failure (ADHF), 58 with non-ST-elevation acute coronary syndrome (NSTE-ACS) were examined. Biomarkers NT-pro BNP in serum and cystatin C in serum; neutrophil gelatinase-associated lipocalin (NGAL), kidney injury molecule-1 (KIM-1) and interleukine-18 (IL-18) in the urine) were estimated.

Results: Patients with vs without AKI had higher levels of NGAL (344±308.8 vs 37.9±65.1 ng/ml, p<0.001) and KIM-1 (0.774±0.36 vs 0.402±0.59 ng/ml, p<0.01) in all groups. Patients with NSTE-ACS with vs without AKI had higher level of NT-proBNP (12857.1±3108.8 vs 10134±2479,p<0.001), no difference was detected in ADHF group. In course of ROC analyses NGAL and KIM-1 showed the best prognostic values (AUC value 0.948 and 0.760). The cut points for NGAL >60.1 ng/ml (sensitivity 87%, specificity 92%) and KIM-1>0.519 ng/ml (sensitivity 87%, specificity 67%) were detected, coefficient of association φ was 0,781 and 0,555 respectively.Simultaneous detection of two markers - increase of NGAL and/or KIM-1 in high-risk patients permits to diagnose 95% of AKI cases at admission. Patients with AKI and diagnostically significant levels of biomarkers had higher prevalence of CKD (p<0.01),acute heart failure, ADHF (p<0.05) vs those without increase of biomarkers, in-hospital mortality in this group was 29,8%.

Conclusions: Positive combined biomarker test is an independent and strong predictor of AKI in patients with acute cardiac diseases, and its implementation in clinical practice may improve the early diagnostics of AKI when markers of kidney function are still at normal levels.

942 / #EV0842

RISK ASSESSMENT SCALE FOR DETECTION OF COMMUNITY-ACQUIRED ACUTE KIDNEY INJURY IN PATIENTS ADMITTED WITH CARDIAC DISEASES

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Background and Aims: To reveal the prevalence and predictors of community-acquired acute kidney injury (AKI) in patients with acute cardiac diseases.

Methods: 566 patients (278 with acute decompensated heart failure (ADHF), 288 with non-ST-elevation acute coronary syndrome (NSTE-ACS) were examined. AKI was diagnosed according 2012 KDIGO Guidelines. Community of hospital-acquired AKI was identified depending on time of development.

Results: Incidence of AKI in all patients, patients with ADHF and NSTE-ACS was 40, 43.5 and 37.2%.In-hospital mortality in patients with AKI was higher than in those with stable kidney function (14.9 vs 3.6%, p<0.001). Community-acquired AKI was present in 18% of patients (20.5 and 15.6% in ADHF and NSTE-ACS patients), in-hospital mortality was 16.7% (10.5and24.4% respectively). The risk assessment scale for community-acquired AKI was developed based on independent predictors of AKI, using binary logistic regression and ROC analysis (AUC 0.860, 95% CI 0.821-0.898). Independent variables included in the model, and the corresponding points (pts) are listed below: clinical and demographic characteristics (male gender-6 pts,alcohol abuse-7 pts,DM-1 pt), present on admission (MI-5 pts, AHF/ADHF-9 pts, systolic BP<120-10 pts,<110-15 pts,<90 mmHg- 27 pts;state of kidney function on admission:serum creatinine>98 and>128 mkmol/L-14 and 22 pts,GFRCKD-EPI<45 and<15 ml/min/1.73 m2-7 and 14 pts; glucose level >7mmol/L-4 pts),outpatient intake of ACE inhibitors-4 pts, absence of spironolactone in outpatient therapy-1 pt. Diagnostically significant risk score for predicting AKI was>30 pts, the risk prediction model showed sensitivity 89%, specificity 66%.

Conclusions: Usage of risk assessment scale in clinical practice may help to detect patients with high-risk of AKI on admission. Baseline kidney function and blood pressure level are main predictors of AKI in patients admitted with cardiac diseases.

 DOI: 10.12890/2022_V9Sup1

953 / #EV0843

INCIDENCE AND PROGNOSTIC VALUE OF ACUTE KIDNEY INJURY IN PATIENTS WITH ACUTE DECOMPENSATED HEART FAILURE

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Background and Aims: To evaluate the incidence and prognostic value of acute kindey injury (AKI) in patients with acute decompensated heart failure (ADHF).

Methods: 278 patients with ADHF were examined.CKD and AKI were diagnosed according to KDIGO 2012 Guidelines. AKI phenotypes depending on time of development, persistence, history of CKD were identified.

Results: Incidence of AKI in ADHF was43.5%. AKI stage 1 was prevalent (54.5%).Patients with ADHF with vs without AKI had higher rate of previous MI (70.3 vs 29.3%, p<0.001), stable angina (59.5 vs 31.2%, p<0.01). Outpatient therapy rarely included beta-blockers (p<0.05) and loop diuretics (p<0.01), at the time of admission those with AKI more frequently had systolic blood pressure (SBP) <110 mmHg (15.7 vs 4.5%, p<0.01) and serum creatinine (SCr) above the median level (98 µmol/l) (60.3 vs 41.2%, p<0.05).

Community-acquired AKI, AKI on CKD, AKI de novo and persistent AKI were found in 20.5, 20.8, 23% and 20% of patients respectively. Changes of SCr during hospitalization in the range 10-50%, which did not meet AKI criteria,were designated as subclinical AKI and occurred in 19.4% of patients.

In-hospital mortality was higher in patients with vs without AKI (12.4 vs 5%, p<0.01) and was the highest in patients with in-hospital persistent AKI de novo and community-acquired persistent AKI on CKD (41 and 29%, p<0.01).In the group of subclinical AKI mortality was comparable with the patients with AKI (11.8%).

Independent predictors of AKI were: GFR<30 ml/min/1.73 m^2 (odds ratio (OR) 6.5,95% confidential interval (CI) 3.4-12.6, p<0.001), SCr >118µmol/l (OR 5.5,95% CI 3.6-8.5, p<0.001), SBP <90mmHg (OR 4.6,95% CI 1.2-17.1) (all parameters at admission).

Conclusions: The incidence of AKI in ADHF was 43.5% and was associated with higher in-hospital mortality. Patients with baseline tendency to hypotension and severely impaired kidney function are at high risk of developing AKI.

2200 / #EV0844

MICROSCOPIC HEMATURIA: LOOK BEYOND URINARY TRACT INFECTION

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Case Description: Microscopic hematuria (MH) is common finding on urinalysis and often the only evidence of urologic malignancy (UM), despite being often neglected. About 10% of individuals with HM have NU. We present the case of 81-year-old female with medical past history of recurrent urinary tract infections (UTIs). She was admitted for dysuria and low back pain with 2 days with suspition of acute pyelonephritis. Laboratory test results unveiled C-reactive protein elevation (88 mg/L) and urinalysis revealed only erythrocyturia (1276/mcL). Upon admission, it was possible to verify that the patient had similar episodes in the previous 4 months, with the several urinalysis showing only MH and many negative urine cultures. These episodes were always interpreted as recurrent UTIs and many courses of antibiotic were prescribed without clinical improvement. In addition, the patient also reported weight loss. The blood tests revealed hypoproliferative anemia and elevated erythrocyte sedimentation rate (96 mm/1h). Renal function and 24-hour urine collection were normal and immunological study was negative. Abdominopelvic CT revealed an uptake nodular lesion in the left pelvis, probably related to urothelial neoplasia. Hence, a flexible ureterocystoscopy was performed and documented 3 papillary neoformations. Urine citology revealed findings consistent with high-grade urothelial carcinoma. She underwent left nephroureterectomy and transurethral bladder resection. Urothelial carcinoma is an UM, in which MH accompanied by urinary symptoms are frequent. Its clinical presentation can mimic other more frequent diagnoses. Hence, prompt recognition, a timely diagnosis and appropriate treatment are crucial for prognosis of this condition.

905 / #EV0845

PERSONALIZED APPROACH TO THE TREATMENT OF PATIENTS WITH TYPE 2 DIABETES AND COMORBIDITIES

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Background and Aims: Type 2 diabetes mellitus (T2DM) is a common disease with a steady upward trend. A combination of T2DM and other diseases of internal organs, lead to the increase in the overall risk of cardiovascular events and premature death. The study aims to develop a personalized approach to the treatment of patients with T2DM with comorbid pathology of

 DOI: 10.12890/2022_V9Sup1

internal organs via the early detection, diagnosis, and choice of appropriate management plan.
Methods: Standard clinic-laboratory methods were used for diagnosis. Groups were formed for patients with T2D and renal diseases, cardio-vascular diseases, and internal organs pathology. Treatment was determined based on the current guidelines. Data evaluation was performed with the standard statistical methods. Participants consented to all stages of the study.
Results: Study population consisted of 65 participants, 29 males and 36 females, mean age 65.19 (±10,6). All participants had T2D and renal disease, of which 46.15% participants had pyelonephritis, 53.84% had diabetic renal disease. Cardiovascular disease: 47.69% – ischemic heart disease, 60% – arterial hypertension, and 58.46% – other diseases. 30 patients (experiment group) reverse sodium-glucose inhibitor cotransporter type 2 dapagliflozin. The survey was conducted in 3 and 6 months. The positive effect of dapagliflozin was noted in the experimental group: slowing the progression of nephropathy, reduction of albuminuria; reduction and/or stabilization of blood pressure, weight loss. Adverse events, including cardiovascular events, were not observed.
Conclusions: The results of the study indicate a significant contribution of early diagnosis of complications, concomitant pathology in patients with T2D improving the prognosis and quality of life of patients.

1348 / #EV0846

NEPHROTIC SYNDROME: A DIAGNOSTIC CHALLENGE. ABOUT A CASE OF MINIMAL INJURY DISEASE

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Case Description: Nephrotic syndrome stands out for the set of signs and symptoms that result from the increased permeability of the capillary wall of the glomeruli. It is a relatively common condition but with very different causes which makes its diagnosis challenging. A 66-year-old woman with a history of arterial hypertension came to the Emergency Department due to edema of the lower limbs with three weeks of evolution without improvement with diuretics. On physical examination, only symmetrical edema and blood pressure of 180/100 mmHg were highlighted.
Clinical Hypothesis: Analytically: Urea 69 mg/dl, Cr 2.24mg/dl, hypoalbuminemia (2.1mg/dl) and hematoproteinuria. In the differential diagnosis of acute kidney injury associated with proteinuria, the diagnostic hypotheses are nephrotic syndrome, nephritic syndrome or monoclonal proliferative neoplasia.
Diagnostic Pathways: From the complementary laboratory evaluation: hypercholesterolemia, massive proteinuria (8.5 g/day), protein electrophoresis without monoclonal peaks, increase in β2-microglobulin (7.2 mg/L), autoimmunity and negative viral markers, normal C3 and C4, factor negative rheumatoid, absence of dysmorphic erythrocytes. Faced with the diagnosis of Nephrotic Syndrome without determined etiology, renal biopsy was performed: Minimal Lesions Disease with IgM deposits. She started treatment with 1 mg/kg corticosteroids and anticoagulant with good therapeutic response and good prognosis.
Discussion and Learning Points: Minimal Lesions Disease is the main etiology of Nephrotic Syndrome in children and accounts for about 10-20% in adults. It is a presentation of sudden onset that requires a renal biopsy for diagnostic clarification. The role of renal biopsy is controversial, but it is essential since immunosuppressive therapy is highly effective.

1115 / #EV0847

HEMATOMA AS A RESULT OF A FALL

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Case Description: Renal trauma can damage parenchyma or renal vessels, causing hemorrhage or urine leakage. Men with an average age of 30 years are predominantly affected.
Clinical Hypothesis: A 58-year male with hypertension and smoker, went to the Emergency Room for pain in the right flank with 2 days. Upon admission, analytically urea 59 mg/dL, creatinine 1.54 mg/dL and CRP 14.5 mg/L, leukocyturia and abdominopelvic computed tomography (CT-AP) with globose appearance of kidneys with densification of perirenal fat bilaterally suggestive of medical nephropathy and/or acute pyelonephritis. He was admitted to Internal Medicine for pyelonephritis with kidney failure medicated with ceftriaxone.
Diagnostic Pathways: Due to a very small improvement in renal function, despite improvement in inflammatory parameters, renal echoDoppler was performed showing a heterogeneous parenchymal mass with 6 cm long axis in left kidney. He had a drop in hemoglobin of 6 grams in 3 days and urgent CT-AP revealed left kidney increased due to large hematoma on posterior and inferior sides (13x9x6cm) and small amount of blood retroperitoneal. An angiography with only a small focus of active bleeding in the posterior upper/middle parenchyma and given the patient's hemodynamic stability and absence of abdominal compartment syndrome, no indication for intervention by interventional Urology/Radiology. After this finding he confessed that 5 days before admission had fallen from 1.5 meters high with trauma to right lumbar spine.
Discussion and Learning Points: The approach to traumatic kidney injuries has evolved, with emphasis on non-surgical management, especially blunt kidney injuries. This shift came from recognition that urgent surgical exploration often led to nephrectomy and angioembolization to treat bleeding is highly successful.

 DOI: 10.12890/2022_V9Sup1

1530 / #EV0848

NEPHROTIC SYNDROME – A RARE CAUSE

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Case Description: 75 years old autonomous female patient, with hypertension, HFrEF and carpal tunnel syndrome. Patient presented with anasarca and exertion dyspnoea, which started 2 months prior admission and unquantifiable weight loss. Lab results showed haemoglobin of 12.2 mg/dL, serum creatinine of 2.4 mg/dL, albumin of 2.7 g/dL, urinary biochemistry – proteins: 1000 mg/dL, urinary sediment - 10-25 erythrocytes/per visual field.
Clinical Hypothesis: Nephrotic syndrome of unknown aetiology.
Diagnostic Pathways: Nephrotic syndrome was confirmed - 24 hours urinary protein of 13 g, hypercholesteremia, anasarca, hypoalbuminemia and resistant hypertension. The lab results showed a normal serum protein electrophoresis, serum immunoglobulins, serum and urinary free light chains, negative ANA, ANCA, HCV, HIV and HBV. Renal biopsy was performed, which was inconclusive. Despite a normal serum protein electrophoresis, a serum immunoelectrophoresis was performed, which revealed a minute gamma monoclonal lambda light chain spike. Subsequentially, myelogram and medullar biopsy were performed, confirming the presence of 4.6% and 10% plasmocytes, respectively. The latter exam, also, showed the presence of amyloid substance. The pathologist revised the renal biopsy - described the presence of amyloid, as well as, light chain deposits on throughout the renal parenchyma. Chemotherapy was initiated, patient needs renal replacement therapy twice a week.
Discussion and Learning Points: This case reports a rare cause of nephrotic syndrome, multiple myeloma with AL amyloidosis, which can easily be overlooked if not actively sought-after. Furthermore, as was noticeable, the exams requested, which normally confirm the diagnosis, were normal, so a high level of suspicion and tenacity are paramount in this situation as to not overlook diagnosis.

763 / #EV0849

DEEP ENDOMETRIOSIS – THE SILENT KILLER OF THE KIDNEY. RENAL CONSEQUENCES OF UNTREATED DEEP ENDOMETRIOSIS AFFECTING URINARY TRACT, OUR SURGICAL OUTCOMES

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Background and Aims: We report possible renal consequences of untreated deep endometriosis (DE) affecting urinary tract, the outcome of its surgical management in our department and importance of nephrologic follow-up.
Methods: Prospective clinical study.
Results: Endometriosis is a frequent gynecological diagnosis (prevalence 10%). Deep endometriosis (DE) affecting urinary tract presents 1-2% of women with endometriosis. Possible consequences can be very serious especially in ureter´s affection leading to hydronephrosis and it could result to loss of organ. We present 92 study group of patients surgically treated for DE of urinary tract. In 40 women only bladder, in 45 ureter and in 7 patients both organs were affected. In patients with bladder endometriosis bladder resection, in ureter´s affection advanced ureterolysis, ureter resection with anastomosis – ureterorraphy or ureterocystoneoanastomosis (UCNA) was performed. In our study group is a large proportion of patients (n=8) underwent unilateral nephrectomy for complete loss of kidney fuction showing the problem of late diagnosis. Bilateral affection was present in 6 cases. Three patients had arterial hypertension of renal etiology. Overall postoperative outcomes are favourable with normal postoperative course of all patients, with one recurrence of ureter form and one case of strongly reduced of kidney function 10 years after ureter resection and ureterorrhaphy.
Conclusions: Surgical outcomes of urinary tract endometriosis are satisfactory. However it should be early diagnosed before loss of kidney fuction or cardiovascular complications development (hypertension) which could be very frequent. Adequate diagnostics and follow-up optimally in cooperation of nephrologists skilled in doppler evaluation of renal perfusion is important after surgery as well.

2494 / #EV0850

IN SEARCH OF THE HIDDEN DISSECTION.

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Case Description: 61-year-old male, history of HBP, thoraco-abdominal aortic dissection who underwent surgery in 2018 with chronic leak, mechanical aortic valve and CKD with baseline creatinine of 1.5mg/dl.
The patient presents abdominal pain and dark urine, hypertension (BP 182/109 mmHg), kidney failure stage AKI II with creatinine 3.1mg/dl, proteinuria 5g daily and hematuria. Hemoglobin 12.2 g/dl, LDH 2800 IU/L, bilirubin 3mg/dl and undetectable haptoglobin. Blood smear with 3% schistocytes, and ADAMTS13 >10%.
Clinical Hypothesis: Mechanical hemolytic anemia.
Diagnostic Pathways: A contrast-enhanced TC is performed, ruling out acute aortic pathology. However, the echocardiogram shows a rupture of an aortic pseudoaneurysm to the right atrium not shows previusly in the TC. Surgical repair is performed with subsequent improvement in renal function and progressive resolution of the hemolytic process.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: Heme and ferrous groups from hemoglobin released during intravascular hemolysis come into direct contact with the endothelium, producing tissue and endothelial injury due to consumption of nitric oxide, lipid peroxidation, platelet and leukocyte adhesion and formation of DAMPs. In the kidney, iron is deposited into podocytes and renal tubule precipitating with Tamm-Horsfall proteins, forming obstructive casts. In addition, an oxidative environment is generated, promoting fibrosis and cell death. The prevalence of kidney failure due to mechanical haemolytic anemia is 7%, requiring temporary hemodialysis in 57% with renal recovery after repairation of the underlying cause in 78%. In our case, the patient developed mechanical intravascular haemolytic anemia due to rupture of a postsurgical aortic pseudoaneurysm, with reduced haemolysis and recovery of renal impairment after surgical repair.

2011 / #EV0851

THE IMPORTANCE OF MAINTAINING A HIGH LEVEL OF SUSPICION FOR NEPHROTIC SYNDROME

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Case Description: 59 year-old woman, with personal history of hypertension, dyslipidemia, diabetes and obesity, who went to the emergency department due to generalized edemas, fatigue and abdominal pain with 6 months of evolution and progressive worsening. She had been evaluated by several doctors before, without improvement with the instituted therapies. When asked, the patient reported an increase of 20 kg in weight, orthopnea and uncontrolled blood pressure, having started furosemide 5 months earlier. She also complained of urinary urgency, having already undergone antibiotic therapy for urinary tract infection, and foamy urine in the last 4 months.

Clinical Hypothesis: Nephrotic syndrome of unknow cause.

Diagnostic Pathways: In the emergency department, several tests were performed. The combur test revealed proteinuria and the analytical study evidenced hypoalbuminemia. The chest x-ray and renovesical ultrasound showed bilateral pleural effusion and ascites/ abdominal wall edema, respectively. The patient was hospitalized for ev diuretic treatment and etiological study. During hospitalization: 24-hour urine presented proteinuria 13.94g/24h, additional analytical study revealed hyperlipidemia and hypertriglyceridemia and the renal biopsy showed an Idiopathic Membranous Nephropathy (anti-PLA2R positive). Patient had a favorable response to diuretic and antihypertensive therapy and presented a weight loss of 22kg in 15 days.

Discussion and Learning Points: Nephrotic syndrome is one cause of end-stage kidney disease. Common etiologies in adults include diabetic nephropathy, focal segmental glomerulosclerosis, and membranous nephropathy. Patients present with marked edema, proteinuria, hypoalbuminemia, and often hyperlipidemia. Because of that common presentation, it's very important for the physician to suspect this entity in order to do the diagnosis.

1929 / #EV0852

CATHETER-ASSOCIATED URINARY TRACT INFECTIONS: RESULTS OF A COHORT STUDY IN AN INTERNAL MEDICINE WARD

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Background and Aims: Urinary Tract Infections (UTIs) attributed to the use of urinary tract catheters are a common type of nosocomial infection. The majority of patients waiting to be admitted to an Internal Medicine ward pass through the Emergency Department (ED), where most are catheterized while awaiting for an available bed. The aim of this study was to evaluate the incidence of catheter-related UTIs.

Methods: Retrospective cohort study, including 363 patients admitted from January to December 2020 to an Internal Medicine ward. Data from catheterized patients and urine cultures were collected and analyzed. Patients admitted with a pre-existing UTI were excluded from this study.

Results: 85 patients presented positive bacteriuria, and 75.2% (n=64) had been catheterized. 70.3% of these patients (n=45) had been specifically catheterized at the ED, to measure the urinary output in 44.4% of patients (n=20), urinary retention in 20% of patients (n=9), collection of urine cultures in 33.3% of patients (n=15), unspecified in 2.2% (n=1) of patients. Upon admission to the Internal Medicine ward, 21 patients had an indwelling urinary tract catheter (IUTC).

Conclusions: A high number of patients were catheterized at the ED. Most of the patients with positive bacteriuria had a IUTC for at least 3 days at the time of admission, due to the time spent at the ED waiting for an available bed. To help reduce the incidence of asymptomatic catheter-related bacteriuria, reduce complications and the misuse of antibiotics, IUTCs should be removed when no longer required.

2697 / #EV0853

HYPERRENINEMIC HYPERALDOSTERONISM - A GITELMAN SYNDROME MIMICKER CASE

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Case Description: Woman, 47 years, referred to external appointment. Irrelevant personal/familiar antecedents. Clinic with months of evolution: asthenia, easy fatigue, cramps,

 DOI: 10.12890/2022_V9Sup1

paresthesias, dizziness, palpitations and lower limb edema. Analytically: hypokalemia (3 mEq/L), plasmatic renin 1521 uU/ml (N:5,3-99,1), urinary aldosterone 56,6uG/24h (N:1,2-28,1). Abdominal/renal ultrasound: no relevant findings. Previously medicated: metolazone 5 mg; spironolactone 300 mg.
Clinical Hypothesis: Laxative therapy utilization once in a while (long time constipation). The patient knew about hypokalemia for several years. Relevant physical examination findings: elongated body shape (body mass index: 19.9). Arterial tension: 119/65 mmHg. Normal cardiac/respiratory auscultation. Clubbing. No peripheral edema. Arterial blood gas: PaO2: 81,4; PaCO2: 42,2; pH: 7,486; HCO3-: 31,1. Analytically: K+ 2.8 mmol/L; Na+ 130 mmol/L; Cl- 97mmol/L; Ca2+ 10.8 mg/dl (N:8.3-10.6); Mg2+ 16 mg/L (N:16-26). 24 hour urine measurements: Ca2+ 216 mg/24h (N:100-300); K+ 72 mmol/24h (N:25-125); Na+ 182 mmol/24h (N:40-220); Mg2+ 108 mg/24h (N:24-255). Confirmed hyperreninemic hyperaldosteronism. Thoracoabdominal computerized tomography: no relevant parenchymal/vascular alterations. A provisional diagnosis was made: tubulopathy, Gitelman Syndrome-like.
Diagnostic Pathways: Nevertheless, there was the notion of diuretics abuse, as well as other substances, even if the patient denied. Those could lead to different conclusions/diagnosis. Previous medication was suspended. Clinical history review introduced clarifications: COVID-19 pandemic confinements led to physical activity restrictions, a huge problem to a patient with prior story of anorexia, bulimic/binge-eating episodes and excessive laxative intake since childhood (colic melanosis in previous colonoscopy already).
Discussion and Learning Points: Body image distortion and anoretic/bulimic disorders are risk factors to some substances intake/abuse. A few may even be tubulopathy'-mimickers. Therefore, in front of Gitelman Syndrome suggestive diagnosis, a broad clinical/emotional evaluation is needed, including laxatives/diuretics/other substances consumption.

172 / #EV0854

A RARE CAUSE OF POLYURIA

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Case Description: A 56-year-old-man with history of epilepsy, peripheral artery disease, alcohol and tobacco addiction was admitted to hospital with septic arthritis of the knee. He was medicated with vancomycin and, on the third day of hospitalization, developed polyuria-polydipsia (urinary output 10 L/day). The blood tests showed low plasma and urinary (292 and 110 mOsmol/Kg, respectively) osmolarity and no ionic abnormalities. During the water deprivation test, urinary osmolarity increased to 282 mOsmol/kg and, after desmopressin injection, to 368 mOsmol/kg. The patient got better after we stopped vancomycin and started hydrochlorothiazide.
Clinical Hypothesis: We admitted a polyuria-polydipsia syndrome caused by nephrogenic eiabetes insipidus (DI) secondary to vancomycin.
Diagnostic Pathways: To confirm the diagnosis of DI, is essential to measure urinary osmolarity, plasma ionogram and water deprivation test or copeptin-based algorithm. After that, the cause should be investigated. We suggested a drug cause (vancomycin) because of the temporal relation and after exclusion of other causes.
Discussion and Learning Points: DI is a rare form of polyuria-polydipsia syndrome and can be nephrogenic, central or gestational. The first is due to genetic and acquired defects (namely drugs), that is related with a resistance of anti-diuretic hormone on the kidney, despite normal plasma levels. The diagnosis may possibly be challenging and sometimes inconclusive, since the tests are difficult to do and early institution of inappropriate therapeutics. The treatment depends on the type of DI and thiazides are the gold standard to reduce urine volume. This case illustrates the importance of an accurate diagnostic algorithm, to start as soon as possible the proper therapeutic.

1380 / #EV0855

ANCA-NEGATIVE PAUCI-IMMUNE CRESCENTIC GLOMERULONEPHRITIS - A CASE REPORT

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Case Description: 63 year-old man was referred to the emergency department by his general practitioner due to an incidental finding of a plasmatic creatinine value of 6.3 mg/dL. He had no previous history of cronic kidney disease or long-term diabetes and he was assymptomatic. He had not started any new medication recently, denied recent infection or exposure to ionic contrast. Physical examination showed no alterations besides slightly eletaved blood pressure. Blood tests were repeated confirming the kidney disfunction associated with microcitic anemia. He had no ionic or acid-base disorders. Kidney ultrassound did not show signs of obstruction or cronic nephropathy. Urinalisys showed microscopic hematuria with dismorphic red cells and proteinúria. Was admitted to internal medicine ward for investigation.
Clinical Hypothesis: There were no specific clinical aspects pointing towards the ethiology of this rapidly progressive glomerulonephritis. Due to the age of onset, rapid deterioration of kidney function and presentation as a nephritic syndrome IgA nephropathy, anti-GBM disease or a secondary GN, namely ANCA-associated vasculitis seemed more likely than alternative causes.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: Immunological markers and kidney biopsy were performed. Erythrocyte sedimentation rate was 126mm/h. Complement was normal. Anti-GBM, ANCA and remaining antibodies were negative. Kidney biopsy showed necrotizing crescentic glomerulonephritis with immunofluorescence not showing significant deposition of immunocomplexes. Testing for ANCA antibodies was repeated and was still negative.
Discussion and Learning Points: This case illustrates a rare form of small vessel vasculitis included in the spectrum of ANCA-associated vasculitis. It highlights the role of histological classification for diagnosing this entity. Regardless of the serologic positivity ofr ANCA, therapeutical recomendations remain the same, but the prognosis is still uknown.

804 / #EV0856

NEPHROTIC SYNDROME AS THE FIRST MANIFESTATION OF HEPATITIS C - A CASE OF MEMBRANEPROLIFERATIVE GLOMERULONEPHRITIS

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Case Description: 57-year-old white woman with history of hypertension with left ventricle hypertrohy and previous relationship with HIV/HCV co-infected partner, who presents with 1 month of evolution of worsening of tension profile (resistant hypertension), foamy urine and anasarca. Blood tests with renal dysfunction, hypoalbuminemia and electrophoresis of proteins with peak alpha2-globulin, and urine analysis with proteinuria and erythrocyturia. Admitted nephrotic syndrome, she was hospitalized for study.
Clinical Hypothesis: Membranoproliferative glomerulonephritis is a glomerular lesion pattern detection by immunofluorescence. Infections, including hepatitis C (HCV), are one of the possible causes. The therapy lies in the treatment of HCV, of the factors of poor renal prognosis – nephrotic syndrome, arterial hypertension and renal dysfunction; and in immunosuppression.
Diagnostic Pathways: From the complementary tests performed: urinary sediment with dysmorphic erythroproteinuria, nephrotic proteinuria (15776 mg/24h), hypoalbuminemia (18.4 g/L), hypercholesterolemia (LDL 138 mg/dL, Triglycerides 232mg/dL), positive rheumatoid factor (560 U/mL), decreased C4 complement (0.09 g/L) and positive cryoglobulins; HCV infection, genotype 4a/4c/4d and viral load 620,000 IU/mL; and unchanged renal ultrasonography. After discussion with Nephrology a renal biopsy was performed: glomerular immunocomplexes, full house standard in immunofluoride. Because of the diagnosis of Hepatitis C-associated membranoproliferative glomerulonephritis, antiviral therapy (ledispavir and sofosbuvir) was initiated.
Discussion and Learning Points: The importance of this case lies in the possibility that viral hepatitis has several presentations, other than liver dysfunction. Glomerular disease, such as glomerulonephritis, can be one of them. Screening with viral serologies is therefore fundamental and should be ideally performed for all patients, and even more so, if risk behaviors/contacts.

1581 / #EV0857

EXPLAINING THE PHYSIOPATHOLOGY OF MIXED ACIDEMIA THROUGH ANAMNESIS

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Case Description: A 69-year-old man, with type-2 diabetes (under metformin, gliclazide) and hypertension (polymedicated, including furosemide), presented in the Emergency Department with 3-day dire abdominal pain, associated with diarrhea, followed by anuria. Further questioning provided additional information that he had had a contrast-enhanced-CT before symptom onset. He was shortly after found hypotensive, hyperventilating, and taken to the resuscitation area where initial workup revealed severe acidemia [pH 7.03, pCO2 17mmHg, HCO3- 4.5mmol/L], hyperkalemia [5.5mEq/L], lactic accumulation [15.8mmol/L], a severe acute kidney injury (AKI) [creatinine 7.3mg/dL] and an abdominal-CT still showed contrast administered 4 days prior, without other findings. The patient underwent renal replacement therapy with correction of metabolic disturbances. He was discharged 10 days later - normalized gasometric evaluation, creatinine improvement (<2.0mg/dL) and normal ionogram. Suspension of metformin use was recommended and dosage of other prescriptions was adjusted.
Clinical Hypothesis: A contrast-induced-nephropathy, on a patient under metformin that had not been priorly suspended, triggered one of the most feared side effects of this oral antidiabetic agent - MALA (Metformin-Associated Lactic Acidosis); furthermore, the diarrhea and furosemide use have also aggravated the rapid progression of renal deterioration, that ultimately led to the severe acidemia.
Diagnostic Pathways: A physiopathology exercise, regarding a chain of events affecting the kidney and acid-base and electrolyte balance.
Discussion and Learning Points: The combination of synergistic mechanisms of AKI established the background for a life-threatening metabolic/lactic acidosis, bringing to attention the importance of anamnesis and the role of an Internist in intertwining information provided by clinical, laboratory, radiologic findings - with significant impact on prevention, diagnosis and management.

 DOI: 10.12890/2022_V9Sup1

1126 / #EV0858

EMPHYSEMATOUS CYSTITIS DUE TO KLEBSIELLA PNEUMONIAE

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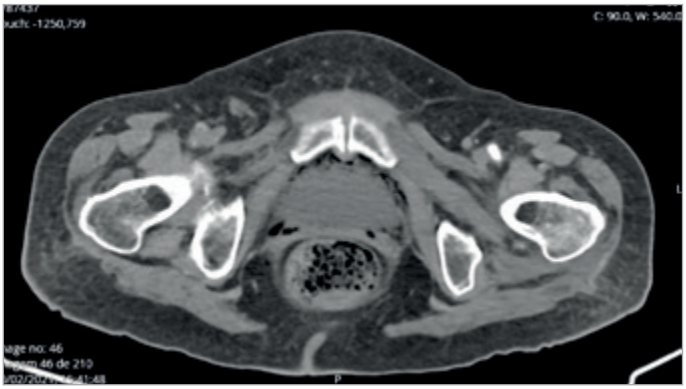
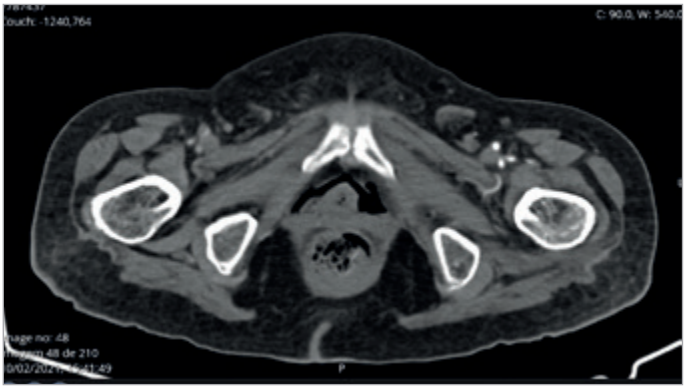
Case Description: A 76 year-old woman with a history of uncharacterized dementia syndrome, type 2 diabetes mellitus, high blood pressure, dyslipidemia and permanent atrial fibrillation (under no anticoagulants), was admitted due to prostration and hematuria after two days. Laboratory works showed leukocytosis (19,900/uL), CRP 4.34 mg/dL, Procalcitonin 0.35 ng/mL. Spot urine showed hemoglobinuria and no leukocytes.
Clinical Hypothesis: Emphysematous cystitis.
Diagnostic Pathways: Abdominal and pelvic CT were performed, which documented large amounts of air in the bladder wall. Urine culture identified Klebsiella pneumoniae.
Discussion and Learning Points: Diagnosis of emphysematous cystitis due to *K. pneumoniae* was assumed. She was started piperacillin/tazobactam and clindamycin with clinical, laboratory and imaging resolution (Figure 1, 2).



#EV0858 Figure 1.



#EV0858 Figure 2.

837 / #EV0859

UNCOMPLICATED CYSTITIS CAUSED BY RAOULTELLA PLANTICOLA

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Case Description: 62-year-old woman with a personal history of type 2 diabetes mellitus and urinary incontinence. Underwent an urodynamic study for the treatment of urinary incontinence. Two days after the procedure she developed fever, chills, dysuria and hypogastric pain.
Clinical Hypothesis: Urinary tract infection (UTI).
Diagnostic Pathways: Urine culture was carry out with positive result for *Raoultella planticola.*
Discussion and Learning Points: *Raoultella planticola* is an encapsulated, nonmotile, aerobic gram-negative rod and mostly found in soil and water environments. The gastrointestinal and the upper respiratory tract are the typical reservoirs, causing commonly pneumonia, biliary tract infections, and bacteremia. It rarely cause infection in healthy individuals but malignancy, transplant recipients, dialysis-dependent patients, diabetes mellitus and immunocompromised state are importante risk factors. UTI secondary to Raoultella planticola is very rare with very few cases in adults been published in the literature to date. In the present case, diabetes mellitus was considered the main comorbidity that led to the immunosuppression state and, therefore, to acute cystitis. It is also important to mention as an additional risk factor the performed invasive procedure.

1608 / #EV0860

XANTHOGRANULOMATOUS PYELONEPHRITIS: A CASE REPORT

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Case Description: A 31-year-old woman presented to the emergency department with a 3-month history of malaise, anorexia, weight loss and night sweats. She had been diagnosed with iron deficiency anemia and started oral supplementation but her endoscopic studies were normal.She denied diarrhea, vomiting, blood loss, low urinary tract symptoms or history of nephrolithiasis, genital or oral ulcers,sicca syndrome, cutaneous or articular manifestations,lymphadenopathy and fever. She had family history of thyroid and breast cancer and also some relatives with Crohn's disease. Upon admission, her vital signs were normal,

DOI: 10.12890/2022_V9Sup1

she had no respiratory distress or fever, cardiac and pulmonary auscultation and abdominal examination revealed no alterations.
Clinical Hypothesis: A wide spectrum of differential diagnosis was considered including inflammatory,infectious and neoplastic diseases.
Diagnostic Pathways: Laboratory studies demonstrated iron deficiency anemia (Hb=10.1g/dL),14420 white blood cells/mm^3 with neutrophilia, thrombocytosis (640,000cells/mm^3), elevation of CRP (111 mg/L) and ESR (92 mm/1st hour), urinalysis documented leucocituria/erythrocituria but the patient was on her period.Liver enzymes, coagulation studies, plasma urea/creatinine and thyroid tests were all normal. Proteinogram had no monoclonal peaks, angiotensin converting enzyme was normal and auto-immunity panel was also negative. Screening for hepatitis B, C, HIV and syphilis were negative,as was Igra test. Urine culture isolated a *Proteus mirabilis*. CT-scan showed an enlarged left kidney with a calculus in the renal pelvis and findings suggestive of xanthogranulomatous pyelonephritis (XPN). Thyroid ultrasound had no pathological signs.
Discussion and Learning Points: She was started on intravenous antibiotics and underwent percutaneous nephrostomy as a bridge to definitive treatment with nephrectomy. XPN is a rare form of chronic pyelonephritis.It occurs most frequently in middle age women with history of urinary tract infections or nephrolithiasis. Symptoms may be with unspecific and a high rate of clinical suspicion is needed in order to perform a correct diagnosis.

2709 / #EV0861

IGA NEPHROPATHY, ABOUT A CLINICAL CASE

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Case Description: Male, 72 years old. History of hypertension, type 2 DM and alcoholic liver cirrhosis. Asthenia, weight loss and vomiting with 3 weeks of evolution; anemia, AKI and microscopic hematuria verified by the assistant physician, with indication for water reinforcement and reassessment. Went to the ER for aggravation. Objective examination without alterations; AP CT compatible with liver cirrhosis. On admission, worsening of creatinine and hemoglobin. Analytically, no ionic changes, increased B2 microglobulin, PSA, alpha-fetoprotein and normal protein electrophoresis, immunologically with positive ANA's (1/80), SV of 87 mm/h, erythrocyturia no dysmorphia, proteinuria; renal ultrasound with findings of chronic nephropathy. Urethrocystoscopy suggesting hematuria of prostatic etiology and endoscopies with gastric angiodysplasia. Renal biopsy compatible with IgA nephropathy, presence of 1 cell crescent. With stable renal function (Creat 7.9 mg/dl), he was medical release with prednisolone 1 mg/kg/day. Readmitted for hyperglycemia and uremic encephalopathy, requiring hemodialysis. Corticosteroid therapy was reduced and cyclophosphamide was introduced, suspended after 2 months due to complications and lack of benefit. Patient dependent on hemodialysis, remaining clinically well.
Clinical Hypothesis: IgA nephropathy is characterized by the deposition of glomerular IgA, being one of the main causes of primary glomerulonephritis. Its etiology is mostly unknown, generally presenting a benign course, progressing to end-stage renal disease in 50% of patients within 20 years of diagnosis.
Diagnostic Pathways: Renal biopsy compatible with IgA nephropathy.
Discussion and Learning Points: Unusually, we found a rapidly progressive kidney injury in an IgA nephropathy and hemodialysis dependence in a few weeks, highlighting the possible association between this pathology and previously known cirrhosis.

1804 / #EV0862

MINIMAL CHANGE DISEASE, A CASE REPORT

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Case Description: A 65 year-old man, with no personal history of interest, was admitted to the emergency department with facial and testicular swelling of acute course. Upon physical examination, he presented oedema with fovea in both lower limbs. The analitic results revealed hipercolesterolemia, low total protein level and urine protein-to-creatinine ratio greater than 3000 mg/g.
Clinical Hypothesis: Differential diagnosis of nephrotic syndrome is broad. Due to the age of the patient we prioritised screening for secondary causes such as diabetes, infection, autoimmune diseases or malignance for its impact on prognosis, considering primary causes as less probable.
Diagnostic Pathways: Blood test and renal ultrasound ecography were requested with no findings of interest. During admission, we attended a progressive clinical deterioration with oligoanuria and worsening oedema as well as renal failure requiring urgent haemodialysis. Other potential causes of nephrotic range proteinuria such as NTIA, bilateral renal vein thrombosis or cortical necrosis were reasonably ruled out by doppler and angioCT studies. Empirical corticosteroid boluses were started with great symptomatic and analytical improvement. Finally, a renal biopsy was performed without evidence of vascular lesions, interstitial inflammation or autoimmune deposits in direct immunofluorescence. This led to the final diagnosis of nephrotic syndrome secondary to minimal changes disease (MCD).
Discussion and Learning Points: MCD is a rare cause of nephrotic syndrome in adults. Although most cases are idiopathic, it is important to evaluate potential underlying secondary causes, particularly malignancy. A kidney biopsy is required to establish the diagnosis. The goal of therapy is to reduce proteinuria with the use of immunosuppressive agents, most commonly glucocorticoids.

 DOI: 10.12890/2022_V9Sup1

1962 / #EV0863

NUTCRACKER SYNDROME: A CAUSE OF HEMATURIA AND LOW BACK PAIN IN YOUNG PATIENTS

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Case Description: Nutcracker syndrome is a clinical condition in which there is compression of the left renal vein by the aorta and the superior mesenteric artery.
Clinical Hypothesis: 21-year-old man. History of macroscopic hematuria about 3 years before coming to the ER, self-limited. No other relevant pathological antecedents. No usual medication. He went to the ER due left lumbar pain with 1 week of evolution and macroscopic hematuria with 1 day of evolution. He denied abdominal pain, nausea, vomiting, fever. Renal Murphy's sign negative.
Diagnostic Pathways: The study found normocytic and normochromic anemia, without leukocytosis or neutrophilia. No changes in renal function or ionogram, troponin, myoglobin and DHL. Type II urine with 500 leukocytes, positive nitrites. Uro-CT and AngioCT showed hypodense parenchymal areas in the upper half of the left kidney, possibly due to hemorrhagic pyelonephritis or renal infarction. Echocardiogram without evidence of cardioembolism. The patient was admitted to the Internal Medicine Service. Decided not to introduce antibiotic therapy or hypocoagulation as it did not present clinical or analytical signs compatible with pyelonephritis or infarction, only imaging suspicion. Hereditary thrombophilias, anti-phospholipid syndrome and hyperhomocysteinemia were excluded. He performed MRI without evidence of renal infarction. We reviewed CAT images from admission with Radiology having arrived at the diagnosis of Nutcracker Syndrome. The patient was referred to the Urology consultation.
Discussion and Learning Points: This clinical case, in addition to revealing a rare cause of hematuria and low back pain, also highlights the importance of correlating clinical and analytical data with imaging findings in the diagnostic process.

1663 / #EV0864

THE MANAGEMENT OF THE HOSPITALIZED PATIENT WITH URINARY TRACT INFECTION

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Background and Aims: Urinary tract infection (UTI) is a common pathology, mostly affecting women and usually with mild symptoms. However, an ever increasing number of patients are hospitalized with sepsis due to UTI or other infectious disease with an associated UTI. This study focuses on patients diagnosed with UTI and respective treatment during a period of 8 months.
Methods: A retrospective cohort study between January and August of 2021 including patients diagnosed with UTI in an Internal Medicine Department.
Results: 187 patients were diagnosed with UTI (61% female and 39% male with a mean age of 81.6 years). Only 65.2% (n=122) had urinary culture performed with 37.7% (n=46) having isolated a pathogen (the most common being *E. coli* in 34 patients). All patients started empirical antibiotics (the majority with clavulanic acid – n=109; 58.3%) and 9.6% (n=18) needed adjustment according to the antimicrobial susceptibility test. Patients who did not need urinary catheterization (n=118; 63.1%) had shorter hospitalization period (mean of 5.2 days) when compared to patients with urinary catheterization with a 40% longer hospitalization period (mean of 7.3 days).
Conclusions: Although most patients with UTI, who require hospitalization, have a short hospitalization period and good clinical outcome with empirical antibiotics, this study shows that urinary cultures should always be performed since its results are available in a few days and allow the physician to optimize the antimicrobial therapy. Urinary catherization should only be performed when necessary since it is responsible for prolonging the hospitalization period by promoting urinary bladder dysmotility and recurrent UTIs.

1760 / #EV0865

ASSESSMENT OF QUALITY OF LIFE IN PATIENTS UNDERGOING HEMODIALYSIS USING MWQOLI QUESTIONNAIRE: A ONE CENTER STUDY ANNA SHAMANADZE; TAMAR KANDASHVILI; IRMA TCHOKHONELIDZE; TBILISI, GEORGIA

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Background and Aims: Chronic Kidney Disease (CKD) is the global problem. This disease has negative effect on patients' quality of life and on the budget of public health service. Assessment of Health-related Quality of Life (Qol) in hemodialysis patients (HD) is a prognostic pointer of the consequence of the disease, including mortality and hospitalization. Worldwide the Missoula-VITAS Quality of Life Index scale (MVQOLI) is used for examinations of QoL. The aim of this study was to examine QoL in HD patients using MVQOLI-15 in one dialysis center in Georgia.
Methods: The sample study consisted of 273 patients (112 female, 160 male; age 18-80) undergoing hemodialysis. Data were collected by"Missoula VITAS Quality of life index - MVQOLI".
Results: The total MVQOLI-15 score in our study was 16.43, which is slightly above the middle of the index scale. The majority of HD patients rate their QoL as "Fair". Interpersonal relationships, well-being, and transcendental experiences are factors that have a greater impact on the quality of life of hemodialysis patients than other factors. Men feel more satisfied than women when fulfilling their daily activities.

 DOI: 10.12890/2022_V9Sup1

Conclusions: The study should be expanded and performed in CKD stage 3,4 and ESRD patients in order to provide adequate intervention as soon as their quality of life deteriorates.

1932 / #EV0866

BLADDER PERFORATION – WHEN MAGNETIC RESONANCE IMAGING (MRI) SHOWS IATROGENESIS

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Case Description: Bladder trauma is rare and is most often due to blunt external trauma. The suspicion of bladder trauma should arise in the face of hematuria, suprapubic pain, peritoneal signs, ascites, urinary retention, and anuria after vesical catheterization.
Clinical Hypothesis: We present a case of rupture of the bladder wall, with no history of external trauma, hematuria or difficulty in emptying.
Diagnostic Pathways: Female patient, 87 years old, with a history of arterial hypertension, dyslipidemia, malignant neoplasms of the stomach and uterus, considered cured in the past. The patient was admitted to an Internal Medicine infirmary to study probable bladder cancer versus uterine cancer recurrence, and underwent MRI to characterize the suspected lesion. MRI images showed perforation of the bladder wall by a catheter with a catheter balloon located superiorly to the bladder. The day before, she was submitted to urinary catheterization, and since that time, she presented abdominal pain and distension in the lower quadrants, diuresis extra catheter and cloudy yellow fluid leaking through the tubule of the catheter. The catheter was repositioned under ultrasound control with clear urine output.
Discussion and Learning Points: Given the rarity of finding this pathology in MRI, it is considered relevant for its pedagogical value.

1982 / #EV0867

WHAT LIES BEHIND A CASE OF NEPHROTIC SYNDROME?

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Case Description: Nephrotic syndrome is represented by various clinical and paraclinical manifestations that appear during different renal and extra-renal diseases, leading to loss of kidney function. The most common etiologies are focal segmental glomerulosclerosis and diabetic nephropathy, whereas vasculitides and especially cryoglobulinemic vasculitis represent only very rare cases. Cryoglobulinemia is a rare disease (incidence of approx. 1:100.000), characterized by the presence of cryoglobulines in the serum. This may result in a clinical syndrome of systemic inflammation (most commonly affecting the kidneys and skin) caused by cryoglobulin-containing immune complexes. The incidence of renal disease varies from 5-60%, with isolated proteinuria and hematuria being more common than nephrotic syndrome. A 67 year old male, hypertensive and smoking patient presents with impure nephrotic syndrome. Various possible causes were investigated by analyzing the following parameters: urea, creatinine, C3 and C4 complement fractions, ds anti-DNA antibodies, anti-MPO and anti-PR3 antibodies, anti-PLA2R antibodies, hepatitis markers, peripheral blood smear, urinary protein immune electrophoresis. Among these markers complement consumption (C4 fraction) and the presence of cryoglobulines were the only pathologic ones. Kidney biopsy confirms the diagnosis of cryoglobulinemic nephropathy. The patient's evolution is favourable upon receiving corticotherapy and antiproteinuric medication. The symptoms subside, proteinuria decreases to a subnephrotic range and renal function remains stable. Maintenance therapy consists of low-dose Prednisone.
Clinical Hypothesis: Autoimmune, paraneoplastic or infectious cause of nephrotic syndrome.
Diagnostic Pathways: Autoimmune markers; hepatitis markers; immune electrophoresis (multiple myeloma).
Discussion and Learning Points: This case is peculiar due to an absence of the most frequent cryoglubulinemia causes, such as hepatitis C, autoimmune and lymphoproliferative disorders.

402 / #EV0868

ADOLESCENT BLOOD PRESSURE AND THE RISK FOR EARLY KIDNEY DAMAGE IN YOUNG ADULTHOOD

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Background and Aims: Guidelines recently classified blood pressure above 130/80 mmHg as hypertension, but risk implications for early kidney damage are unknown. We set to assess the association between blood pressure in adolescence and the risk for early kidney damage in young adulthood.
Methods: In this nationally representative cohort study we followed adolescents aged 16-20 who underwent mandatory

 DOI: 10.12890/2022_V9Sup1

medical examinations. We excluded adolescents with kidney pathology, hypertension, or missing blood pressure or anthropometric data. Cox regressions were used to assess the hazard ratio between blood pressure in adolescence and early kidney damage in young adulthood, defined as albuminuria of 30 mg/g or greater with an estimated glomerular filtration rate of 60 ml/min/1.73m^2 or over.

Results: Of 598,702 adolescents (54% men), 2,004 (0.3%) developed early kidney damage during a mean follow-up of 15.1 (7.2) years. An interaction was demonstrated between adolescent body mass index (BMI), blood pressure categories, and early kidney damage ($p<0.001$). The adjusted hazard ratios for early kidney damage in blood pressure 130/80 mmHg or greater were 1.17 (1.03-1.32) and 1.51 (1.22-1.86) among adolescents with lean and high BMI, respectively. The adjusted hazard ratios for kidney damage in blood pressure 140/90 mmHg or greater were 1.49 (1.15-1.93) and 1.79 (1.35-2.38) among adolescents with lean and high BMI, respectively.

Conclusions: Blood pressure of 130/80 mmHg or greater in apparently healthy adolescents was associated with early kidney damage in young adulthood, especially those with overweight and obesity.

 DOI: 10.12890/2022_V9Sup1

AS11. ONCOLOGIC AND HEMATOLOGIC DISEASES

1603 / #EV0869

HYPOGAMMAGLOBULINEMIA: PALIPERIDONE RARE ADVERSE EFFECT

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Case Description: Hypogammaglobulinemia is a condition frequently associated with primary immunodeficiency disorders in children, but usually attributed to secondary causes in adults. These entities can promote decreased production of gammaglobulins or increase its losses. Hypogammaglobulinemia triggered by immunosuppressors or antiepileptics is well known, but its correlation to antipsychotics is sparser. The authors describe a case of a 23-years-old boy, with psychiatric disorder and chronically medicated with paliperidone 9 mg qd, zolpidem 10 mg qd and mexazolam 1 mg qd. He was admitted to the hospital with a bacterial community acquired pneumonia (no agent identified; hemocultures and virus panel were negative) and treated with empiric antibiotic with good outcome. On routine analysis, hypogammaglobulinemia (7.9%; NR 11.1-18.8) was found. After his discharge, he was subsequently tested and kept the same deficit. Serum immunoglobulins D was low (<1.3 mg/dL; NR <15); IgA, IgG and free light chain were normal; Bence Jones protein was negative as well as serum and urinary immunofixation. HIV serology was negative. It was considered that genetic diseases or drug induced were the more foreseeable reason, believing the latter was the more probable one, the authors withdrawn paliperidone. This led to an improvement of gammaglobulinemia levels, reaching 9.4% on his last review (the highest until now).
Clinical Hypothesis: Drug-induced hypogammaglobulinemia, primary immunodeficiency.
Diagnostic Pathways: Withdrawn of paliperidone.
Discussion and Learning Points: Hypogammaglobulinemia drug induced associated to paliperidone is a rare condition; its pathophysiology is unknown. The authors believe and highlight the importance of considering the more common causes while keeping an open mind to some rare scenarios as this one.

438 / #EV0870

FROM FULMINANT PERICARDITIS TO CHEMOTHERAPY, A BRIEF STORY OF AN OCCULT NEOPLASIA

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Case Description: A 49-year-old woman, history of restrictive heart disease due to myopericarditis fulminant to Influenza B, recurrent left pleural effusion requiring thoracentesis/pleural drainage with two years of evolution. The patient goes to the emergency for dyspnea and lower limb edema. Hospitalized with a diagnosis of decompensated heart failure (HF). On objective examination, she presented signs and symptoms compatible with HF (orthopnea, jugular engorgement, S3 auscultation and lower limb edema). She also presented exuberant edema in the upper limb, left breast and chest wall, with a hard-elastic mass in the left anterior sub-axillary region.
Clinical Hypothesis: Heart failure.
Diagnostic Pathways: Medical therapy was optimized and chest computed tomography (CT) was performed, which documented left breast enlargement due to interstitial edema and increased left axillary lymph node expression, changes in adipose tissue density between the chest wall and the latissimus dorsi muscle, with hyper-uptake and infiltrative characteristics, multiple focal bone lesions of osteolytic pattern and diffuse and nonspecific alterations of the lung parenchyma, suggesting lymphangiomatosis. Biopsy of chest wall mass with carcinoma infiltrating muscle tissue. Immunophenotyping compatible with probable gastrointestinal origin. Upper digestive endoscopy and colonoscopy, mammography and breast ultrasound revealed no alterations.
Discussion and Learning Points: In view of the progression of symptoms, the start of palliative chemotherapy was decided in a multidisciplinary meeting This case intends to reflect the difficulty of diagnostic approach in occult neoplasia, given the multiplicities of presentation forms and interpretation difficulties of complementary diagnostic exams. The diagnosis of an occult neoplasia requires a quick, multidisciplinary and complex approach.

 DOI: 10.12890/2022_V9Sup1

175 / #EV0871

A CASE REPORT OF A RARE DISEASE: PULMONARY MALT LYMPHOMA

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Case Description: An 81-year-old non-smoker female, with previous history of pulmonary and cardiac disease, was evaluated weeks after being hospitalized due to decompensated cardiac failure in the setting of an Influenza A infection. A lung CT showed multiple and bilateral pulmonary consolidations. The patient was asymptomatic: no fever, cough, lymphadenopathy, night sweats nor weight loss.

Clinical Hypothesis: Neoplastic, infectious and autoimmune causes were hypothesized.

Diagnostic Pathways: On blood analysis, hematologic parameters, lactate dehydrogenase, inflammation markers, renal/liver function tests, autoimmunity study and HIV/HCV/HBV serologies were normal. A new lung CT showed mild increase of few lesions with otherwise normal flexible bronchoscopy. A CT- guided transthoracic biopsy allowed the identification of small lymphocytes, rare immunoblasts and centroblasts with plasmocitoid dierentiation, CD20 and bcl-2 positivity, with Ki-67 of 20%. Bone marrow aspirateand biopsy and abdominal and pelvic CT showed no relevant findings. After the establishment of the diagnosis of pMALToma, the patient underwent 4 cycles of rituximab over one month with parcial response.

Discussion and Learning Points: pMALToma is an indolent extranodal low-grade B-cell lymphoma of the lung, the most reported primary pulmonary lymphoma. It is possibly driven by chronic antigen stimulation. CT is more sensitive presenting more frequent multiple and bilateral consolidations, nodules, or masses, with no topographic predominance. Tissue biopsy is the gold standard for diagnosis. Systemic therapies with chemo- or immunotherapy are preferred in symptomatic systemic disease or with overt progression, deep invasion, bulky disease, impending organ damage or patient preference. Although rituximab-chlorambucil has been used as the first choice, rituximab alone can obtain a 70% response in MALT lymphoma.

2659 / #EV0872

FEVER OF UNKNOWN ORIGIN AND SPLENIC INFARCTION: WHAT DO THEY HIDE?

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Case Description: Male, 66 years old, heavy ex-smoker, with past marked alcoholic habits. Retired from truck driver three months ago. Medical history of essential hypertension, dyslipidemia and COVID pneumonia on the last month. Under treatment with anti-hypertensive drugs and statin. No known allergies. Resorted to the emergency department due to high fever (40ºC), fatigue, asthenia worsened on the last month. Analytically, with anemia and lymphopenia, increased liver enzymes and C-reactive protein. Large spectrum empiric antibiotherapy was started, but ineffective. He was admitted with the diagnosis of fever of unknown origin (FUO).

Clinical Hypothesis: Atypical presentation of infections, neoplasms or noninfectious inflammatory diseases.

Diagnostic Pathways: During history taking, he mentioned unintentional weight loss, intermittent fever and drenching night sweats three months evolution. At examination, presented cervical, occipital and inguinal adenopathies and bilateral rash until the knees. Further studies revealed negative uroculture, sputum cultures and blood cultures. Normal echocardiogram. Zoonosis study also negative, except doubtful *Borrelia*. Positive antibodies for HCV and both IgG for Epstein-Barr virus and Cytomegalovirus positive. Thoracic and abdominal CT revealed multiple axillary and mediastinal adenopathies, hepatomegaly, splenomegaly and probable splenic infarction. AngioCT confirmed the splenic infarction. Ferritin, sedimentation rate, beta-2 microglobulin and alkaline phosphatase were elevated. FDG/PET-CT compatible with linfoproliferative disease. Cervical lymph node biopsy was suggestive of diffuse large-B-cell lymphoma non-germinal center like. The patient was referred to haemato-oncologic consultation.

Discussion and Learning Points: This case highlights the importance of the diagnostic approach through complete, accurate and repeated history taking and physical examination in the FUO, because it is not always caused by an atypical presentation of a common infection.

880 / #EV0873

ACUTE ISCHEMIC STROKE - WHAT IS HIDDEN BEHIND?

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Case Description: 56-year-old female patient, with no relevant history was admitted to the emergency room for dysarthria, oculocephalic deviation to the right, left hemiparesis with brachial predominance, NIHSS 10. Arterial tension 169/91 mmHg. Computerized tomography (CT) did not show acute hemorrhagic or ischemic lesions, and fibrinolysis was initiated.

Clinical Hypothesis: Considering symptoms, the patient was admitted with the hypothesis of hypertensive ischemic stroke.

Diagnostic Pathways: On the 3rd day of hospitalization, anisocoria begins and a new CT scan revealed extensive parenchymal hypodensity of external base in the right fronto-parietal-temporal region, conditioning mass effect on the adjacent parenchyma. Sedation and orotraqueal intubation were initiated for neuroprotective measures. This case is of interest because of an imaging finding that ends up explaining the stroke in a young patient with no relevant history. Due to the presence of a pattern of

 DOI: 10.12890/2022_V9Sup1

hepatic cytocholestasis, an abdominal ultrasound was requested, which revealed a pelvic mass. An abdominal and pelvic CT scan was then requested, with findings suggestive of right adnexal neoplasia. High CA 125 assay. After stabilization of the clinical condition, the patient was transferred to the Neurology Service and was referred to the Gynecology Service with an eventual plan of laparoscopy with biopsies.
Discussion and Learning Points: This case serves to demonstrate that sometimes the etiology of a pathology is hidden. This case evolved from a proposal for the diagnosis of stroke secondary to hypertension to the diagnosis of ovarian neoplasm requiring further study and follow-up.

2457 / #EV0874

A SICKLING CASE

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Case Description: An african 18-years-old man, with sickle cells disease, had lost medical follow-up. He was evaluated at the emergency department for generalized severe myalgias, without antalgic position. Scleral jaundice was evident. The laboratory results revealed leucocytosis and anaemia, with haptoglobin consumption, raised levels of lactate dehydrogenase and hyperbilirubinemia from increased indirect bilirubin.
Clinical Hypothesis: Vaso-occlusive and haemolytic crisis.
Diagnostic Pathways: The patient was admitted for surveillance and therapeutic management of a vaso-occlusive and haemolytic crisis. Screening for malaria was negative. Patient symptoms improved with hydration and analgesia. However, after four days, he developed fever and pleuritic pain with a decrease in peripheral oxygen saturation. C-reactive protein increased. Thoracic computed tomography angiography showed consolidations in the lower lobes and pleural effusion. Pulmonary thromboembolism was excluded. This clinical presentation is suggestive of acute thoracic syndrome. Therapeutic with antibiotic was prescribed and red blood cells transfusion was performed. After being released from the hospital, the patient started therapeutic with hydroxyurea. He went under a progressive dose increase with good haematological response and no other exacerbations were observed.
Discussion and Learning Points: Clinical features of sickles cells disease are due to the lower solubility of haemoglobin S, causing red cells' deformation and leading to haemolysis, inflammation and microvascular occlusions. Episodes of acute pain are the main cause of seeking medical care. Acute thoracic syndrome is one of the most common and potentially serious complications after a vaso-occlusive crisis. Increased susceptibility to infections is caused by multiple splenic infarctions. Hydroxyurea had proven to effectively reduce sickle cells exacerbations by increasing foetal haemoglobin levels.

1965 / #EV0875

PARANEOPLASTIC AUTONOMIC DYSFUNCTION ASSOCIATED WITH HIGH GRADE DYSPLASIA B-NHL IN A 79 YEAR OLD MALE PATIENT

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Case Description: A 79 year-old male with history of CAD-MI-PCI, Dyslipidemia, Cardiac pacemaker, PAF, PAD, left-carotid artery stenosis and CKD presented to the ER due to recurrent episodes of presyncope during last week. Physical examination: diastolic murmur, carotid bruit in both arteries and positive orthostasis test were found. Not other significant findings revealed. Laboratory tests :mild hyponatremia, high ESR and mild proteinuria.The patient was admitted for further evaluation.
Clinical Hypothesis: Despite adequate fluid administration, orthostatic hypotension with symptoms of presyncope episodes were not reversible, so further investigation had to be performed.
Diagnostic Pathways: An extensive workup with brain CTA, carotid triplex, Holter monitor and pacemaker reading were carried out. Cerebrovascular accident, arrhythmia and severe carotid artery stenosis were ruled out. Chest and abdomen CT scan revealed extended perihepatic and para-aortic lymphadenopathy. Immunological and hormonal tests were not diagnostic.CT-guided biopsy of a lymph node block showed high grade dysplasia diffuse large B-cell lymphoma. Dysautonomia associated with NHL was the most possible diagnosis .He was treated with fludrocortisone as indicated with immediate improvement. Serology test for LEMS and a3-AChR antibodies were negative. Further evaluation for anti-Hu and CRMP-5 antibodies was not carried out because of high cost and low sensitivity. The patient was referred to Hematology Department for further management. Symptoms kept improving after the treatment for Lymphoma.
Discussion and Learning Points: Paraneoplastic Autonomic Dysfunction (PAD) should be suspected in patients with progressive autonomic symptoms, such as orthostatic hypotension. It has been associated with Hodgkin and NHL in several cases. Management of PAD should focus on antitumour treatment.

280 / #EV0876

RARE PRESENTATION OF PARANEOPLASIC SYNDROME

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Case Description: Female, 40 year-old, healthy until 3 months before admission. Symptoms of cough and pleuritic chest pain, and progressive worsening dyspnea. Two weeks before admission, several episodes on emergency room(ER), clinically diagnosed

 DOI: 10.12890/2022_V9Sup1

with acute pericarditis, initiated classical therapy. On the 3rd ER episode, hemodynamic instability, on work up evidence of cardiac tamponade and moderate pleural effusion, leading to emergent pericardiocentesis achieving hemodynamic stability. The patient was admitted for motorization and etiologic study.
Clinical Hypothesis: Complicated acute pericarditis of several possible etiology, including viral, metabolic, autoimune, paraneoplasic syndrome. Polyserositis secondary to several possible etiology, including infeccious, paraneoplasic, autoimune.
Diagnostic Pathways: Bloodwork with elevated inflammatory markers. Thoracic CT – partial obliteration of superior left segmental bronchi, moderate pleural effusion, without evidence of pulmonary embolism. Echocardiogram - moderate pericardial effusion, without hemodynamic impact. Pleural fluid with characteristics of transudate. Transbronchial biopsy with confirmation of non-small cell lung cancer. Staging TC with evidence of hepatic, pleural and pericardic metastasis. During admission patient was infected with SARS CoV-2, eventual leading to patient death. Final diagnotics: Stage IV non smal cell lung neoplasia, paraneoplasic syndrome with poliserositis presentaion (cardiac tamponade, pleural efussion).
Discussion and Learning Points: Diagnosis of acute pericarditis should be evaluated by echocardiography to exclude complication (pericaredial effusion). Paraneoplasic syndrome have a wide range of presenting symptoms, showing the importance of integration of anamnesis, clinical evaluation and broad diagnostic hypothesis.

2482 / #EV0877

MUSCLE PAIN AND SWELLING OF ATYPICAL CAUSE

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Case Description: A 62-year-old female, with clinical background of stage T2b urothelial bladder cancer, treated with radical cystectomy, without evidence of relapse in four years of close follow-up, presents pain and swelling of right arm and pectoral region, treated by her family doctor with amoxicillin/clavulanic, under the clinical suspicion of mastitis. She consults for lack of improvement, showing extensive edema of upper right limb and collateral circulation around the chest. A Doppler-ultrasound dismissed deep vein thrombosis, and showed an image suggestible of myositis of pectoralis minor, partially collapsing the venous system.
Clinical Hypothesis: She is admitted for study of suspected myositis.
Diagnostic Pathways: A CT scan revealed extensive muscle infiltration, affecting subscapular, pectoralis mayor and minor, thorax wall muscles, pyramidal, gluteus medius and minimus, and two new lesions located in right renal pelvis and proximal ureter. Ultrasound-guided biopsy of left gluteus proved its metastatic nature, morphologically and immunohistochemically compatible with urothelial origin. Consequently, systemic treatment with cisplatin/gemcitabine was decided.
Discussion and Learning Points: Despite the fact that skeletal muscle compounds about 50% of our body mass, it is an exceptional location for metastases, usually meaning advanced disease. Most frequent primary tumors are hematologic, breast and lung. Urothelial origin of skeletal muscle metastasis (SMM) is extremely rare, with only a few cases published. Both clinical presentation and image studies can sometimes be confusing, and mistaken for other clinical entities such as abscesses, therefore a high index of suspicion and histological confirmation of SMM are required. Palliative chemotherapy has proven effective, but prognosis is still poor, with an 8-month survival rate.

1951 / #EV0878

SKIN ICHTHYOSIS AS A CUTANEOUS ANAPLASTIC LARGE T-CELL LYMPHOMA

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Case Description: A 60 year old patient with a history of chronic obstructive pulmonary disorder , obstructive sleep apnea with CPAP usage, diabetes mellitus type II, smoker of 100 pack years ,generalized skin ichthyosis under investigation since 1 year, presented to the ER due to worsening dyspnea and fever. Clinically there were crackles bilaterally on the lower lung fields on lung auscultation, generalized ichthyosis, an enlarged and rigid submandibular lymph node, and hypoxia.
Clinical Hypothesis: Our initial hypothesis was a lower respiratory lung infection but taking into consideration his clinical history and the pathologic X-ray, an investigative work up for a possible neoplasm was initiated. The patient was hospitalized for further treatment.
Diagnostic Pathways: After the underlying infection was treated ,the patient underwent a full body CT scan with IV contrast which showed a large mass of soft tissue density in the right lung hilum with dimensions of 9.19x5.82x5.32 cm and multiple nodules of the same density diffusely located in all lung fields bilaterally, with no relatable findings elsewhere. He was also subdued to lumbar puncture, virology tests and an echocardiogram with no remarkable results. The FNA of the abovementioned lymph node, and following the bronchial wall biopsy histology the diagnosis of anaplastic large T-cell lymphoma was received, with immunohistochemistry of ALK

 DOI: 10.12890/2022_V9Sup1

& CD8 negative, CD30 & CD4 positive.
Discussion and Learning Points: Ichthyosis is a group of skin disorders characterized by excessive amounts dry skin scales. Usually inherited ichtyosis is congenital, acquired ichtyosis can be a marker of autoimmune disease or malignancy and should be investigated further.

2014 / #EV0879

COLONIC NET WITH SUBCUTANEOUS, LUNG AND BONE METASTASES IN A 82 YEAR OLD MALE

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Case Description: A 82-year-old male with history of CAD-MI, dyslipidemia, abdominal aortic aneurysm, BPH arrived to the ER due to diarrhea, abdominal and low back pain for the last month. Physical examination revealed diminished breath sounds and 3 painful subcutaneous masses on the abdomen and the back. No remarkable findings were found from the rest of the examination. Chest X-ray showed right lung nodules. Hypochromic, microcytic, anemia and prolonged INR were found from laboratory tests. The patient was admitted for further evaluation.
Clinical Hypothesis: The most probable cause of these findings is malignancy.
Diagnostic Pathways: Head, chest and abdomen CT scan revealed right-upper-lobe and right-pulmonary-hila lung nodules, right hepatic lobe, left pararenal space and subcutaneous tissue multiple nodule-like masses. Osteolytic lesions in T11 and wedge deformity in T12 of spine were also found. FNA biopsy of a subcutaneous mass showed small cell neuroendocrine tumor (NET) most likely GI NET based on immunomorphological pattern. Octreotide scintigraphy was performed and was positive for metastatic disease. At the same time, evaluation for prolonged INR carried out and chronic DIC was diagnosed based on laboratory findings and blood smear microscopy.
Discussion and Learning Points: GI NET occur in 5/1000 newly diagnosed malignancies. The most common localisation is GI tract (55%) and lung (30%), while about 2% of patient have distant metastases. Small cell NETs have poor prognosis and chemotherapy is the main treatment.

1816 / #EV0880

MERKEL CELL CARCINOMA RECURRENCE: A CASE REPORT

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Case Description: The authors report a case of a 91-year-old man, with history of hypertension and infiltrative Merkel cell carcinoma (MCC) (left nasal dorsum with upper margin metastasis), which went into complete excision in 2017; observed in an internal medicine appointment in 2020 for a left parotid nodular swelling (4 cm, hard consistency, not adherent to the deep and superficial planes) and another in the left submandibular region (8 cm, with the same characteristics), both with a month of growth; no other remarkable physical or laboratory findings were present.
Clinical Hypothesis: Merkel cell carcinoma recurrence.
Diagnostic Pathways: Cranial and neck computed tomography showed a solid, heterogeneous nodule in the left submandibular region, contacting with the left submandibular gland and another nodule (same characteristics) in the left parotid gland. A fine-needle aspiration of the left submandibular gland was performed, which found cytological and immunocytochemical aspects compatible with lymph node metastasis from MCC. He was referred to an Oncology appointment. Positron emission tomography confirmed the parotid and left submandibular masses and revealed liver metastasis; leading to the decision for palliative radiotherapy.
Discussion and Learning Points: Merkel Cell Carcinoma (MCC) is a rare neuroendocrine neoplasm with high clinical aggressiveness and a tendency to lymph node and distant metastasis, which mainly affects the elderly and immunosuppressed. This case intends to highlight the importance of a careful and timely follow up of all neoplastic diseases, ponting that in MCC, distant metastasis are rare (5-8%) but a reality, which early recognition can impact outcome.

2201 / #EV0881

SPONTANEOUS TUMOR LYSIS SYNDROME: A CLINICAL ENTITY TO RECOGNIZE!

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Case Description: Tumor lysis syndrome (TLS) is an oncological emergency with a poor prognosis, which usually occurs after the initiation of chemotherapy. However, in rare cases, TLS can be spontaneous specially in tumors with a high proliferation rate. We present the case of a 67-year-old female with a history of

 DOI: 10.12890/2022_V9Sup1

diffuse large B-cell lymphoma (DLBCL) diagnosed in 2009, who underwent 3 cycles of R-CHOP and radiotherapy until 2010. She was admitted for weight loss (36 Kg), generalized asthenia and anorexia and progressive lymphadenopathy. Laboratory tests results unveiled iron deficiency anemia and elevated LDH (288 U/L). A CT abdominopelvic was performed, which revealed vascular compression by adenopathic and intraperitoneal conglomerates. An abdominal lymph node biopsy was performed. Three days after, she develops impaired consciousness and oliguria. Arterial blood gas revealed metabolic acidemia, hyperlactacidemia (3.8 mmol/L) and blood analysis documented acute kidney injury (3.4 mg/dL), hyperuricemia (12.2 mg/dL), hyperphosphatemia (6.8 mg/dL) and hyperkalemia (6.9 mEq/L). Renal ultrasound and brain/abdominopelvic CT without de novo findings. Hence, spontaneous SLT with multi-organ dysfunction was assumed, and empyric piperacilin/tazobactam, rasburicase and rapid volume expansion was started and the patient was admitted to the intensive care unit. The biopsy establish a definitive diagnosis of DLBCL with high Ki67 proliferation index >90% and chemotherapy was initiated. Spontaneous TLS is a potentially life-threatening condition and can be diagnosed based on Cairo and Bishop criteria. Hence, it's imperative to identify patients at high risk for developing this condition and a timely diagnosis and appropriate treatment are crucial for the prognosis of this condition.

1172 / #EV0882

SQUAMOUS CELL CARCINOMA MIMICKING A CERVICAL PARAGANGLIOMA, A RARE PARANEOPLASTIC SYNDROME.

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Case Description: 67-year-old male with history of uncontrolled hypertension (HT), aortic dissection and smoking (40pack-years). Complaints of paroxysmal sweating, palpitations and flushing lasting 2-3 minutes, and CT with 2 adrenal nodules and increased metanephrine levels.
Clinical Hypothesis: Due to suspicion of pheochromocytoma (PHEO), MRI was ordered confirming adenomas. However repetition of serum and urinary metanephrines were normal.
Diagnostic Pathways: Thiazide diuretic was added to anti-HT medications (ACE inhibitor, beta-blocker, CCB) without clinical improvement. Repeat measurement of metanephrine levels was now elevated and a 18F-FDG PET requested. On follow-up, he presented with 10x5cm stone-like cervical mass, with ultrasound showing a solid, vascularized structure, and PET revealing marked production of catecholamines, suggesting paraganglioma (PG). A nodular formation (18x12mm) in the lung's right middle lobe was also reported. Neck and chest CT showed right laterocervical nodular lesion compatible with a necrotic adenopathy, and middle lobe spiculated nodular image, suggesting neoplasia. Patient maintained paroxysms, as well as limited cervical mobility, asthenia and weight loss. Once referred to Oncology, a cervical mass biopsy revealed a squamous cell carcinoma and not PG, leading to suspicion of a primary lung lesion with cervical metastases. Lung biopsy confirmed diagnosis and exeresis resulted in paroxysm resolution.
Discussion and Learning Points: Paraganglioma is a rare neuroendocrine tumor, derived from catecholamine-producing extra-adrenal chromaffin cells, causing syptoms like hypertension, sweating and headache. Diagnosis is obtained by metanephrine measurement, CT and FDG-PET, the latter with >99% specificity. We present a rare paraneoplastic syndrome with metastasis of catecholamine-producing SCC. Despite very high FDG-PET specificity in detecting PHEO and PG, the hypothesis of SCC, particularly with synchronous lesion, should be considered.

824 / #EV0883

AN UNUSUAL CAUSE OF ACUTE CONFUSIONAL STATE

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Case Description: The authors present a case of a 37-year-old woman with non-Hodgkin's lymphoma (NHL) that presented to emergency department in an acute confusional state, after a daily week headache. On physical examination the patient was confused and amnesic, with a palpable mass in the cranial bone.
Clinical Hypothesis: Acute confusional state.
Diagnostic Pathways: CT and MRI revealed an occipital expanding lesion with bone involvement and significant peripheral vasogenic edema. The patient did not undergo surgery, but PET scan results were highly suggestive of malignancy, reason why the patient started chemotherapy with significant improvement of cerebral lesion.
Discussion and Learning Points: Acute confusional state in patients with disseminated lymphomas may be a sign of progression of the disease, reason why the early recognition, assessment and management is so important and needed.
Primary bone lymphoma is a rare cancer, being responsible for less than 1% of NHL. Secondary bone involvement is more common than primary bone lymphoma, occurring in up to 15% of disseminated lymphomas, and it may result from a direct spread from nodal disease or hematogenous metastases. Usually, it affects more children and is seen more in the axial skeleton than the appendicular skeleton. The purpose of this paper is to emphasize the importance of differential diagnosis in patients with disseminated lymphomas who present with acute confusional state.

 DOI: 10.12890/2022_V9Sup1

1589 / #EV0884

PORCELAIN GALLBLADDER: A PREMALIGNANT LESION

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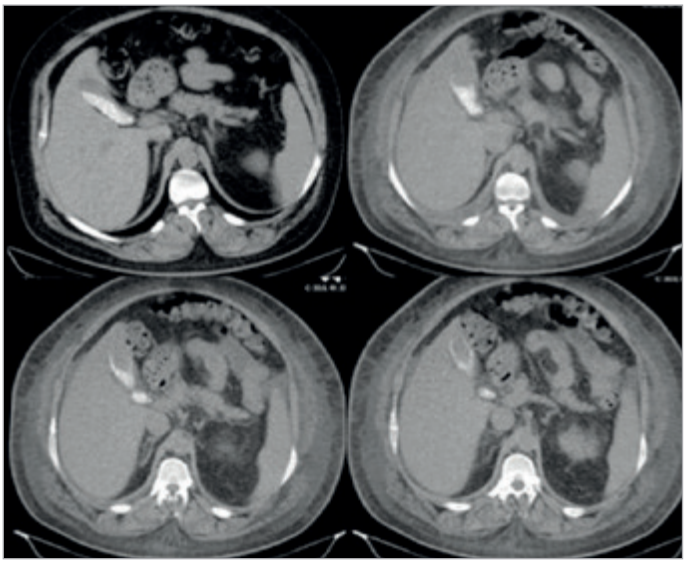
Case Description: 44-years-old male, with insulin-treated diabetes mellitus, arterial hypertension, dyslipidemia and chronic kidney disease, was admitted to the hospital due to decompensated heart failure because of cellulitis of the lower limb. Due to respiratory failure and chest X-ray that did not clarify the etiology, a computed tomography scan of the chest was requested. In this, cardiomegaly, bilateral pleural effusion of slight volume, and, incidentally, the presence of porcelain vesicle with lithiasis in its lumen were reported (Figure 1). After discharge, the patient was seen by general surgery and electively submitted to prophylactic laparoscopic cholecystectomy.

Clinical Hypothesis: Porcellain gallbladder.

Diagnostic Pathways: The present case describes the incidental finding of a porcelain vesicle in a patient admitted to the Internal Medicine ward for decompensated heart failure.Imagiologic finding in CT scan. Then, surgical removal.

Discussion and Learning Points: Porcelain gallbladder is a premalignant lesion, characterized by calcification of the gallbladder walls, commonly attributed to the chronic presence of gallstones. Usually asymptomatic, it may justify symptoms such as pain in the right hypochondrium, abdominal pain, jaundice and be palpable on objective examination of the abdomen. The incidence of gallbladder carcinoma in these patients is 3%, which justifies the recommended treatment, which is prophylactic laparoscopic cholecystectomy. The present case illustrates the importance of an holistic approach to the patient, that tackle his various health porblems in a multidisciplinary team.



#EV0884 Figure 1: Porcelain gallbladder in a chest CT scan.

1852 / #EV0885

A CASE OF RECTAL HEMANGIOENDOTHELIOMA IN A ELDERLY MAN

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Case Description: A 73 year old man seeks the emergency department referring recent onset (for the last 3 days) of hematochezias and asthenia. The patient denied fever and recent travels. On admission, the patient was apyretic, palid, with normal cardiovascular and abdominal examination. The blood tests performed revealed hypochromic microcytic anemia (hemoglobin 6.1 g/dL), iron deficiency, normal white cells count, without elevation of c-reactive protein. Colonoscopy revelead exuberant bluish pseudo-varicose structures from the upper rectum to about 10 cm from the margin of the anus, whose superficial mucosa was erythematous, congestive, with villous zones, and multiple hemangiomas.

Clinical Hypothesis: The diagnosis of hemangioendothelioma was put forward.

Diagnostic Pathways: Pathological examination of biopsies revelead mucosa with nonspecific lymphangiectasias. Other vascular malformations were excluded by cranial, thoracic and abdomen-pelvic tomography. A transendoscopic ultrasound was performed, revealing a non-circumferential, heterogeneous rectal lesion located in the third layer with cystic spaces, calcifications and permeable vessels with a mixed arteriovenous sign, suggestive of rectal hemangioendothelioma. The patient was proposed for surgical intervention

Discussion and Learning Points: Hemangioendotheliomas are a group of vascular neoplasms affecting the skin and soft tissues, with variable symptoms and clinical features, that show a biological behavior intermediate between entirely benign hemangiomas and highly malignant angiosarcomas. Most hemangioendotheliomas are low-grade vascular neoplasms, with a tendency to recur locally and a low metastatic potential. Despite of being rare and not usually found in colon, hemangioendothelioma must be considered in the differential diagnosis with other neoplasms, specially those cursing with gastrointestinal bleeding.

 DOI: 10.12890/2022_V9Sup1

798 / #EV0886

BULKY DISEASE IN HODGKIN'S LYMPHOMA DELAYED BY A PANDEMIC

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Case Description: A 31-year-old female, with prior history of oligophrenia and obesity, was referred to our clinic due to the development of symptomatic anemia. She also complained of epigastric pain, postprandial nausea, easy fatigue, night sweats, loss of 20kg, and pruritus. She presented paleness, hypotension, sinus tachycardia and cervical, supraclavicular (8 cm) and axillary (10 cm) adenomegalies.

Clinical Hypothesis: Infection, auto-immune or hematologic disease

Diagnostic Pathways: Initial complete blood count with normocytic/normochromic anemia (Hb 6.9 g/dL), leukocytosis (39,000/uL) with neutrophilia (35,240/uL), elevated ferritin (1746.35 ng/ml), and elevated LDH and peripheral blood smear with dacrocytes, target cells, and elliptocytes. CT scan revealed a large mediastinal mass (19 cm), multiple adenopathies, pleural effusion, and hepatosplenomegaly. The septic screening revealed SARS-CoV-2 infection, which led to prolonged hospital admission and delayed the diagnostic evaluation. She later performed a supraclavicular lymph node biopsy that documented involvement with scleronodular Hodgkin's lymphoma (LH). PET-CT revealed supra and infra-diaphragmatic lymph-node involvement, with large axillary and mediastinal conglomerates (bulky disease), and pleural and splenic involvement. She was started on chemotherapy with ABVD, achieving complete remission (CR) after 2 cycles. However, due to the enlargement of axillary nodes, she performed another PET-CT after the fourth cycle which was compatible with disease progression, hence she escalated chemotherapy to BEACOPP for another 2 cycles, achieving CR after therapy.

Discussion and Learning Points: We describe a case of a young patient, diagnosed with advanced stage Hodkin's Lymphoma at diagnosis (stage IV-B) during the SARS-CoV-2 pandemic, which illustrates the crucial need for an early diagnosis and introduction of effective treatment.

1264 / #EV0887

UNEXPECTED DIAGNOSIS

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Case Description: Male, 77-years-old, with history of high blood pressure and anxiety; he had a total prostatectomy due to benign hyperplasic prostate and a pelvic fracture due to a car accident, years before. The patient was admitted with acute renal dysfunction, serum creatinine of 11 mg/dL; there was analytical evidence of tumour lysis syndrome, despite unknow cancer diagnosis.

Clinical Hypothesis: We considered the hypothesis of nephrolithiasis due to uric acid kidney stone.

Diagnostic Pathways: Renal ultrasound showed evidence of bilateral urinary tract obstruction, but with no overt nephrolithiasis. An abdominal CT scan was made to clarify the situation, showing ascites with extensive peritoneal carcinomatosis, conditioning urinary obstruction. Left percutaneous nephrostomy was performed, with good result on renal function. Later, due to delirium and aggravated renal dysfunction, the CT scan was repeated, disclosing the nephrostomy catheter slipped to the peritoneal cavity. From the beginning, the presence of tumour lysis syndrome was suggestive of an haematological cancer. The hemogram was normal and CT scans showed no other masses, so it was hypothesised that the patient could have an intestinal lymphoma. Cytochemical analysis of the ascitic fluid, unintentionally collected, showed high-grade B-cell lymphoma.

Discussion and Learning Points: Primary intestinal lymphomas are uncommon. Peritoneal dissemination, known as peritoneal lymphomatosis, is a rare form of presentation, most often associated with high-grade B-cell lymphomas. To the best of our knowledge, this is one of the few cases where a lymphoma has presented as post-renal dysfunction, with no direct urinary involvement.

Lightner,A et al. J Gastrointest Surg. DOI:10.1007/s11605-015-3052-4
Cabral,F et al. Cancer Imaging. DOI:10.1102/1470-7330.2013.0018

2185 / #EV0888

CONSTITUTIONAL SYNDROME. FROM GRAVES' DISEASE TO MYELODYSPLASTIC SYNDROME, A DIAGNOSTIC JOURNEY

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Case Description: We present a case of a 79-year-old man, with no known history and no usual medication. He recurs to emergency department due to a constitutional syndrome with about six months of evolution, with weight loss of 20%, asthenia, anorexia, fever and hypersweating. On physical examination, he was in anasarca with poor general condition. From the initial study, a normocytic normochromic anemia with 7.3g/dL of hemoglobin stands out. The initial study we noted the following: TSH <0.005 IU/mL, free T4 4.05 IU/mL, free T3 6.4 IU/mL, Atc antithyroglobulin 1072.0 IU/mL, anti peroxidase 953.0 IU/mL and the presence of several solid hyperechoic nodules on thyroid ultrasound.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: Graves' disease, neoplasm, mielodysplastic syndrome.
Diagnostic Pathways: With diagnosis of Graves' disease, the patient started treatment with methibasol 10 mg twice a day and prednisolone 1vmg/kg/day. However, despite improvement in thyroid hormone levels, the patient presented worsening asthenia and pancytopenia, requiring multiple transfusions of red blood cell concentrates. The patient completed a study which highlights the presence of adenopathies, submandibular, axillary, pericentimetic mediastinal. A myelogram found dysplasia and a bone biopsy revealed morphological changes compatible with myelodysplastic syndrome with 5% blasts and medullary fibrosis. The patient was discharged and followed as outpatient. He completed 8 cycles of azacitadine in an outpatient setting with complete response. Graves' disease progressed to hypothyroidism after discontinuation of methibasol.
Discussion and Learning Points: This case highlights the importance of a rigorous anamnesis. Otherwise, the intermediate diagnosis of Graves' disease in this case could have compromised the diagnosis of myelodysplastic syndrome.

1297 / #EV0889

FEBRILE NEUTROPENIA: HEMATOLOGY OR PSYCHIATRY?

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Case Description: 71-year-old female, with a medical known history of hypertension, hypothyroidism and bipolar disorder medicated with clozapine. She went to the emergency room due to anorexia and dysuria for 1 week. Objectively with fever (39.2ºC) and neutropenia (0.03X10 /L), she was admitted assuming FN and started on empirical antibiotic therapy with piperacillin/tazobactam. Later on, E. coli was isolated in a urine culture and, after reviewing her medical chart and confirming an increase in the clozapine 2 months before, agranulocytosis was also though as a probable cause. After the suspension of this drug, due to decreasing neutropenia, a myelogram and bone biopsy were performed, which revealed myelodysplastic/myoloproliferative overlap syndrome. Because of the maintained fever, meropenem was then started. 20 days after this switch, the leukogram promptly increased which was discussed with Hematolgy and, admitting leukemic transformation, hydroxyurea was started. During this period, the patient fluctuated between prostration and agitation (interpreted as a maniac episode), which required several neuroleptic adjustments until a balance was found. Having normalized her blood counts after one month of medical therapy, she was transferred to Psychiatry, assuming clozapine grafted in a myelodysplastic syndrome with excess type 2 blasts as a diagnosis.
Clinical Hypothesis: Agranulocytosis induced by clozapine.
Diagnostic Pathways: Myelogram and bone biopsy.
Discussion and Learning Points: The authors praise this case for illustrating an infrequent etiology of FN, as well as for the complexity and permanent need for articulation between the different specialties.

702 / #EV0890

LOWER BACK PAIN – NOT ALWAYS WHAT IT SEEMS

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Case Description: We report a case of a 52 year-old previously healthy male who had been presenting with lower back pain for about 2 months. The pain was intermittent and was worse with the sitting position for long periods of time. There were no neurological deficits or constitutional symptoms. He was evaluated by his Assistant Doctor, who ordered a lumbosacral spine CT.
Clinical Hypothesis: The exam revealed a sacral bone destructive lesion, with the hypothesis of a chondroma, chondro-sarcoma or osteossarcoma.
Diagnostic Pathways: He was admitted for further study of this mass. The body CT scan did not reveal other lesions. The MRI confirmed the presence of a large sacral mass and the biopsy later confirmed the diagnosis of a sacral chondroid chondroma. He was referred to a specialized center for surgical treatment.
Discussion and Learning Points: This case should be a reminder that persistent lower back pain, with little or no relief with medication, should always be investigated, so the most adequate treatment is initiated as soon and effectively as possible.

2671 / #EV0891

ANEMIA IN A PATIENT UNDERGOING GASTRIC BYPASS - INVESTIGATION AND TREATMENT

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Case Description: Female, 65 years old, underwent gastric bypass 4 years ago, with no other relevant history. The patient presented with asthenia, dyspnea, and palpitations with 3 days of evolution. Objectively, the skin and mucous membranes were discolored, with no other alterations.
Clinical Hypothesis: Anemia acute decompensated heart failure
Diagnostic Pathways: Analytical study with microcytic, hypoproliferative anemia (hemoglobin 4.7 g/dL) with ferropenia

 DOI: 10.12890/2022_V9Sup1

(serum iron 18 g/dL, transferrin saturation 3%, ferritin <5 ng/mL). No folic acid or vitamin B12 deficit, normal sedimentation rate, and normal thyroid function. Abdominal ultrasound, upper and lower digestive endoscopy, endoscopic capsule without alterations.
Discussion and Learning Points: Anemia is a common entity in our population, which may have several etiologies. Patients undergoing bariatric surgery present several long-term complications, one of the most frequent is anemia due to absorption deficits. The causes are multifactorial and depend on the surgical procedure. It has been shown that these complications can occur several years after the procedure. Therefore, given background and exclusion of other possible causes, assumed in this case anemia due to absorption deficit after gastric bypass. This case alerts to the need to maintain close follow-up of these patients, as well as adequate supplementation.

1386 / #EV0892

WHEN TWO MYELOGRAMS DON'T ARRIVE

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Case Description: Multiple myeloma is a malignant neoplasm that results from the proliferation of clonal plasma cells. It manifests mainly with hypercalcemia, renal failure, anemia and bone lesions and its diagnosis implies the presence of clonal plasmacytosis ≥ 10% on myelogram or bone/extra medullary plasmacytoma confirmed by biopsy. Early diagnosis and treatment are essential for a better prognosis. A 72-year-old male came to the Emergency Department due to 2-month low back pain with irradiation to the flanks and marked functional limitation.
Clinical Hypothesis: Spine tomography showed secondary injuries in several vertebrae and of the left iliac wing, as well as a pathological fracture in D2, for which he was hospitalized. In the laboratory, anemia and increased sedimentation rate were highlighted, but without alterations in coagulation, calcium, renal function or β2-microglobulin. Serum protein electrophoresis showed a monoclonal peak in the β2 region, which is why multiple myeloma was considered a diagnostic hypothesis.
Diagnostic Pathways: Immunoglobulin assays and serum protein immunofixation were requested, which showed the existence of a monoclonal IgG, lambda gammapathy. The myelogram was inconclusive and bone marrow immunophenotyping identified only 0.1% of monoclonal plasma cells. He repeated myelogram, which was also inconclusive, and therefore underwent tomography-guided biopsies of the left iliac wing and L1, which confirmed the presence of plasma cell cells. Started targeted treatment, already at an advanced stage of the disease.
Discussion and Learning Points: Delay in diagnosis led to late initiation of treatment. This clinical case allows us to reflect on the difficulties in obtaining a diagnosis and consider an earlier invasive diagnostic approach in patients with high diagnostic suspicion.

1087 / #EV0893

A BELLY BUTTON FINDING

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Case Description: The authors describe the case of a 77-year-old man, grading 6/9 in Frailty Scale with multiple cardiovascular risk factors and chronic kidney disease, presenting an umbilical anomaly, otherwise asymptomatic. Initially it was diagnosed as an umbilical hernia and submitted to corrective surgery. In the intraoperative period, a mass was identified and biopsy material obtained to perform immunohistochemical (IHC) tests that suggested poorly differentiated adenocarcinoma.
Clinical Hypothesis: We were presented with two diagnostic hypothesis: either a primary umbilical neoplasm or, more likely, an adenocarcinoma of unknown primary site presenting itself by a Sister Mary Joseph's node in resemblance to when it was first described in 1864. Most probably with gastrointestinal, lung or prostate origin.
Diagnostic Pathways: After a thorough clinical history and physical examination, the initial evaluation included ordering blood count, urinalysis, serum chemistry and prostate-specific antigen. Unfortunately the patient died before CT imaging of the chest, abdomen and pelvis or any other additional exams could be performed.
Discussion and Learning Points: This case aims to emphasize the not so rare difficulty in the differential diagnosis of an umbilical nodule and also that cancer of unknown primary site (CUP) is a common clinical entity that increases with age. Improved diagnostic methods including IHC staining are successful in most instances but only identify the tissue of origin in a minority of cases, therefore CUP patients remain a clinically distinct group. Many have widespread metastases and poor performance status at diagnosis and the ability to distinguish between different tumor types has important prognostic and therapeutic implications.

1846 / #EV0894

CHEST PAIN: NOW WHAT?

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Case Description: 37-year-old man, with no relevant personal history and no medication, presented with chest pain lasting 30 minutes, radiating to the left arm, without cough or dyspnoea. Objectively, he was hemodynamically stable, without fever and with a normal physical examination.His electrocardiogram was normal (without signals of ischemia), myocardial necrosis markers were negative and the chest X- ray revealed widening of the upper right portion of the mediastinum, so a chest computed tomography (CT) scan was requested.The chest CT scan showed a

 DOI: 10.12890/2022_V9Sup1

space-occupying lesion in the anterior mediastinum, on the right, heterogeneous, measuring 11x6.8cm.
Clinical Hypothesis: Thymoma and thymus carcinoma, lymphoma, teratoma, germ cell tumor (seminoma or non-seminoma), ectopic thyroid.
Diagnostic Pathways: The patient had an elevated (2740 mUI/mL) beta-human chorionic gonadotropin (beta-hCG), normal alfa-fetoprotein (AFP), negative autoimmune markers and negative IgG and IgM to toxoplasma and cytomegalovirus. Testicular ultrasound was normal. The biopsy of the mediastinal mass revealed poorly differentiated malignant neoplasm of small and round cells, with lymphoid population. In the immunohistochemistry there was evidence of multifocal immunoreactivity of neoplastic cells for CD 56 and multifocal expression of cytokeratin CAM 5.2, Histochemical study by Periodic Acid Schiff method showed glycogen in the neoplastic cells cytoplasm.
Discussion and Learning Points: He had an anterior mediastinal mass with elevated beta-hCG, compatible with a malignant germ cell tumor. He underwent excision of the mediastinal mass and chemotherapy with bleomycin, etoposide and cisplatin. Good clinical response and remission was observed.This clinical case is important because it lead us to reflect on the causes of chest pain, as well as differential diagnosis for mediastinal masses.

2720 / #EV0895

GOLDEN EYE

Carla Costa[1], Mafalda Vasconcelos[2], Patrícia Moreira[2], Mónica Sousa[2], João Santo[2], José Araújo[2]

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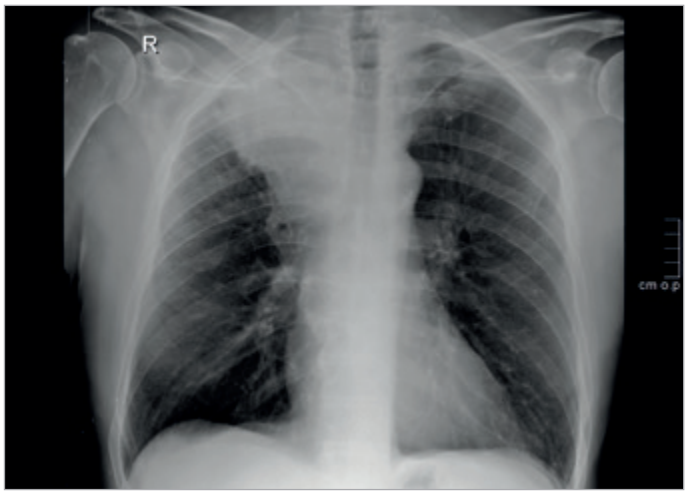
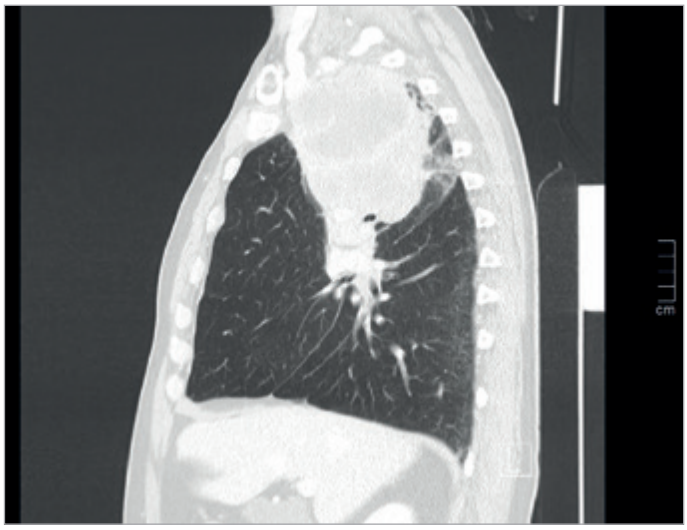
Case Description: A 60 year old male patient, with history of reflux esophagitis and heavy smoker, presented to the emergency room with pleuritic chest pain and pain in the right hypochondriac with irradiation to the ipsilateral shoulder, in the past two months. He did a x-ray with evidence of a mass in the upper lobe of the right lung.
Clinical Hypothesis: Could be a neoplasic mass or pneumonia.
Diagnostic Pathways: His lab showed a CRP of 15.44 mg/dL without leukocytosis. A full body CT was performed, which revealed: "mass involving the apical and posterior segments of the right upper lobe, heterogeneous, with intense peripheral contrast uptake and a markedly hypodense/necrotic center. The lesion cause bronchial obliteration and incarceration of the superior lobar branch of the right pulmonary artery". The bronchoscopy showed direct signs of neoplasia in the right upper lobar bronchus. Biopsies reveled the histological diagnosis of poorly differentiated squamous cell carcinoma (Figure).
Discussion and Learning Points: The Golden's sign represents the right upper lobe atelectasis associated with the presence of a homolateral hilum mass, giving a characteristic image on chest radiograph of an inverted S. The classic image is the result of right upper lobe collapse (lateral part of the curve with inferior concavity) and underlying endobronchial pathology (medial part of the curve with inferior convexity), which results in superior and medial movement of both notches. It can also happen with lymphadenopathy or mediastinal tumors. Recognition of this sign can allow faster identification of this pathologies, allowing a prompt diagnose and therapeutic approach in order to improve patients prognosis.



#EV0895 Figure 1.



#EV0895 Figure 2.

2490 / #EV0896

EXTRAGASTROINTESTINAL STROMAL TUMOR IN THE PERITONEUM: A CASE REPORT

Teresa Costa e Silva, Hugo Alves, Susana Franco, Célia Machado, José Araújo

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Case Description: A 58-year-old male went to the ER due to asthenia, anorexia, heartburn and abdominal pain and distension. He had history of previous alcohol and drugs' abuse and was an active smoker (66 pack-year). On physical exam, the patient had flanks'

 DOI: 10.12890/2022_V9Sup1

dullness, pain in lower quadrants and marked edema of lower limbs. Blood analysis showed Hb 7.7g/dL, VGM 99fL, HGM 30pg, CRP 6,16mg/dL with normal kidney function tests and liver enzymes.
Clinical Hypothesis: An abdominopelvic CT scan was done presenting a massive neoplastic evolvement of peritoneum. The patient was admitted in the ward in order to continue the diagnostic approach.
Diagnostic Pathways: In what concerns his anaemia, it was found both an iron and folate deficiency, in need of properly correction. An eco-guided peritoneum biopsy was conducted, which, concerning the morphological aspects, immunohistochemical profile and clinical context, favoured the diagnosis of GIST (gastrointestinal stromal tumour), namely, extra-gastrointestinal GIST (EGIST). Unfortunately, between the patient's discharge and an approach by Oncology, the patient had an unfavourable evolution, with marked clinical and functional deterioration, showing signs of severe malnutrition in probable relation with his oncologic context. The patient passed away prior to any treatment attempt.
Discussion and Learning Points: EGIST are rare. This tumour malignant potential is still uncertain. The authors wanted to highlight EGIST as an entity to be kept in mind in the differential diagnosis for patients presenting with evolvment and distension of the abdominal wall.

1067 / #EV0897

WHEN G6PD DEFICIENCY IS NO LONGER ASYMPTOMATIC

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Case Description: We describe a case of a 59-years-old african male, with a recent diagnosis of adenocarcinoma of the esophageal gastric transition under chemotherapy and no history of previous blood transfusion, presenting with tumor lysis syndrome (Cairo and Bishop criteria). A single dose of rasburicase (0.2mg/kg) was administered and the patient developed yellowish discoloration of sclera, black color urine, anemia (hemoglobin 6.3 g/dL – drop of 6 g in 4 days) and hyperbilirubinemia (11.95 mg/dL – direct 2.37 mg/dL and indirect 9.58 mg/dL).
Clinical Hypothesis: We assumed hemolytic anemia due to rasburicase.
Diagnostic Pathways: The peripheral blood smear showed marked polychromatophilia and anisopoikilocytosis, many hemighosts, some target cells and rare microspherocytes, and coombs test was positive for immunization for anti-E alloantibody. In the presence of severe hemolysis and rasburicase as the suspected trigger, G6PD levels were tested - which were low (5.5 U/g Hb). The patient received blood transfusion and corticotherapy with methylprednisolone was initiated. He stabilized and there was a great improvement of hemolysis.
Discussion and Learning Points: Glucose 6-phosphate dehydrogenase (G6PD) deficiency results from an X-linked chromosomal mutation, makes red cells highly vulnerable to oxidative damage and therefore susceptible to hemolysis. Affects about 400 million people worldwide. Most individuals with G6PD deficiency are asymptomatic throughout life. The most common precipitators of oxidative stress and hemolysis in G6PD deficiency include medication use and infection, so G6PD deficiency should be considered in patients who experience acute hemolysis after exposure to known oxidative medications, infection or ingestion of fava beans.

1924 / #EV0898

CASE REPORT: KRUKENBERG TUMOR.

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Case Description: We present a case of a 39-year-old woman in follow-up by Digestive Specialists after presenting an episode of upper gastrointestinal bleeding secondary to ulcer in Gastric antrum with Helicobacter pylori isolation. In control gastroscopy is observed persistence of the ulcer. In pathological anatomy, cells that infiltrate the antral mucosa suspected of carcinoma were found diffuse. With the diagnosis of gastric neoplasia the patient was operated undergoing total gastrectomy and obtaining a definitive diagnosis Diffuse gastric carcinoma with signet ring cells (G3) T3N0M0, stage II-A. She received 8 cycles of chemotherapy according to the XELOX scheme (oxaliplatin and capecitabine). Control thoracoabdominal is performed in which ovarian lesions are detected new-onset solid compatible with ovarian metastases (Krukenberg). It is intervened performing complete cytoreduction and hyperthermic intraperitoneal chemotherapy. Currently found with adjuvant chemotherapy monotherapy with capecitabine, without having re-presented tumor relapse data to date.
Clinical Hypothesis: Krukenberg tumor is a metastatic malignancy of the ovary whose origin is usually a predominantly gastrointestinal mucin-rich signet ring adenocarcinoma.
Diagnostic Pathways: Gastroscopy and endoscopic ultrasound was performed which confirmed the diagnosis of gastric neoplasia. Control thoracoabdominal CT is performed in which ovarian lesions are detected.
Discussion and Learning Points: The most of Krukenberg tumors are bilateral (80%), The mean age at diagnosis is 45 years old. They represent 1-2% of all ovarian neoplasms. Not available of an established treatment. The median survival of about 14 months. We present this case given the relative infrequency of this disease and the implications that entails long-term by darkening the prognosis of the same and thus difficulty management

 DOI: 10.12890/2022_V9Sup1

1933 / #EV0899

MASSIVE METASTATIC HEMOTORAX AS A FORM OF PRESENTATION FROM CANCER OF THE PANCREAS

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Case Description: We present the case of a 76-year-old woman with laparoscopic cholecystectomy with cholangio-MR in March 2019 without structural lesion at the pancreatic. She was hospitalizated in August 2019 for a study of left hemothorax. Diagnostic bronchoscopy and thoracentesis with cytologies were negative for malignancy. Abdominal thoracic CT scan was performed showing a solid mass in the pancreatic body. CEA and CA 19.9 tumor markers within normality. Videothoracoscopy was performe because the hemothorax was unstable with output greater than 1500 ml per day with anemia and poly-transfusion maintaining hemodynamic stability, showing a carcinomatous infiltrate diffuse in parietal and visceral pleura with biopsy and pathological diagnosis for poorly differentiated pancreatic neoplasia.

Clinical Hypothesis: Metastatic spontaneous massive hemothorax is a clinical entity extremely infrequent,

Diagnostic Pathways: CT angiography without evidence of signs of active bleeding or aortic pathology. Diagnostic bronchoscopy and thoracentesis with cytologies were negative for malignancy. Abdominal thoracic CT scan was performed with the only finding a solid mass in the pancreatic body. Videothoracoscopy was performed, showing a carcinomatous infiltrate diffuse in parietal and visceral pleura with biopsy and pathological diagnosis for poorly differentiated pancreatic neoplasia.

Discussion and Learning Points: Metastatic pleural effusion as the debut of a neoplasm has been reported being adenocarcinoma of lung the most frequent origin, followed by pleural tumors, hematological neoplasia and ovarian. Metastatic spontaneous massive hemothorax is a clinical entity extremely infrequent, with few cases being described in the literature as a manifestation of gynecological tumors, choriocarcinomas and sarcomas We present the case for the unusual debut of pancreatic neoplasia as hemothorax.

1948 / #EV0900

POLYNEUROPATHY?

Lourdes Daneri Valleras, Jose Luis López González, Sandra Coronado Fernández, Sara García Martínez

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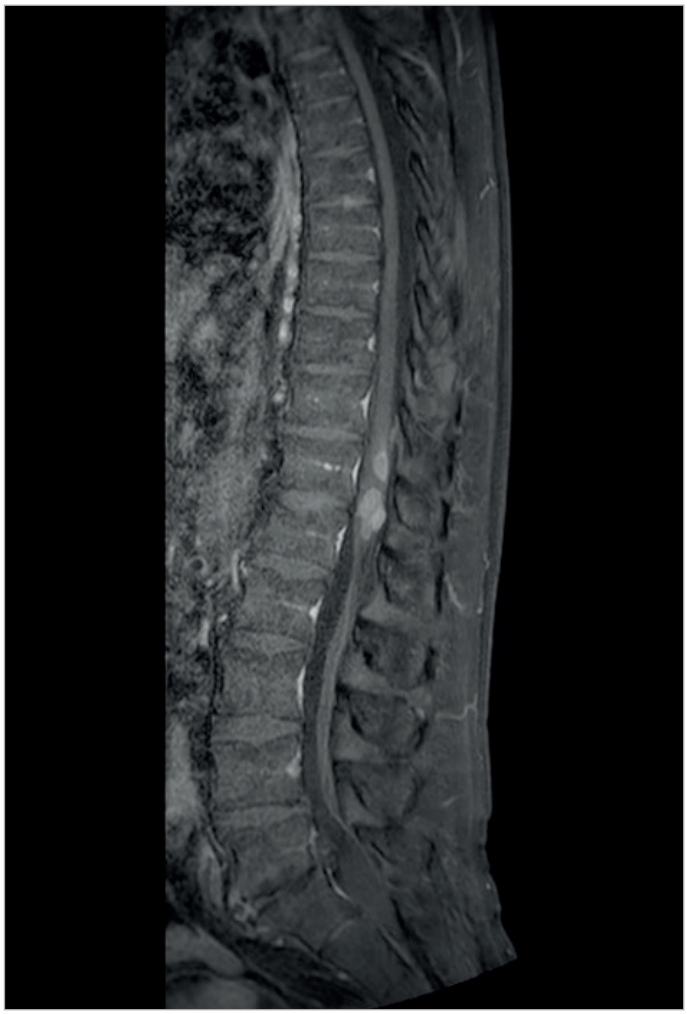
Case Description: We present the case of a 69-year-old man with small cell lung cancer. In August 2020 chemotherapy treatment began with carboplatin and atezolizumab. Since October 2020 in monotherapy with atezolizumab, In January 2021 he was hospitalized due to a feeling of numbness in the distal region of the lower limbs, slightly asymmetric, which was progressing in the proximal by both lower limbs causing gait instability. The patient was diagnosed of moderate axonal polyneuropathy severe, probably attributable to carboplatin, receiving corticosteroid treatment. He refers to persistence of the neurological symptoms predominantly in the lower limbs, which is why it is performed Ambulatory lumbar MRI showing a thickening and alteration of the signal in the medullary cone suggestive of intradural and intramedural metastases of your basic oncological process. For this reason he received 5 sessions of radiotherapy on the injury with improvement. The neurological clinic was more in the context of medullary cone metastases than of polyneuropathy due to the late presentation of the symptoms in relation to with the drug (Figure).

Clinical Hypothesis: It is very important to rule out CNS involvement if there is minimal suspicion and looking for metastasis in pacient with cancer.

Diagnostic Pathways: Complementary tests were performed: autoimmunity panel, antineutrophil antibodies, TSH, serology, anatomopathological CSF, electromyogram and lumbar MRI.

Discussion and Learning Points: Polyneuropathies affect 2-8% of the population. It is essential to carry out a broad differential diagnosis and exhaustive study. It is very important to rule out CNS involvement if there is minimal suspicion. Both processes can coexist.



#EV0900 Figure 1.

DOI: 10.12890/2022_V9Sup1

2635 / #EV0901

THE MYELODYSPLASTIC SYNDROME PARADOX: A DIAGNOSIS TO CONSIDER IN YOUNGER AGE GROUPS

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[2]Escola de Medicina da Universidade do Minho, Área Científicopedagógica Clínica, Braga, Portugal

Case Description: The following paper aims to present a clinical case of a 38-year-old woman that was hospitalized for pneumonia. During hospitalization, a vesicular vaginal rash appeared, which was compatible with genital herpes, and also complete blood counts showed pancytopenia. Due to these signs of immunosuppression, she was submitted to a bone marrow aspiration, whose immunophenotyping revealed dysplasia in the erythroid and myeloid lineages and the presence of 14% of myeloid blasts compatible with the RAEB-2 subtype.

Clinical Hypothesis: Myelodysplastic syndromes; multiple myeloma; lymphoma; leukemia; HIV.

Diagnostic Pathways: Blood count, renal and liver function, c-reactive protein, immunoelectrophoresis, myelogram, bone marrow biopsy.

Discussion and Learning Points: The myelodysplastic syndromes (MDS) are a group of hematologic neoplasms in which malfunctioning stem cells lead to hypercellularity and dysplasia of the bone marrow. Therefore, ineffective hematopoiesis results in peripheral blood cytopenias and functional blood cell abnormalities. Most cases of MDS have an idiopathic etiology. Aging is the most important risk factor as mutations in hematopoietic stem cells accumulate over the years. In fact, the average age at diagnosis is approximately 70 years with a slight male predominance. This disease's presentation depends on the affected cell lines as signs of anemia, recurrent or severe infections, and bleeding. Thus, this case intends to aware the medical community of the possibility of immunosuppression states in young individuals
with treatment-resistant pneumonia and therefore the importance of and therefore the importance of keeping the clinic suspicion of hemato-oncological pathologies. Finally, our case enhances the presentation of MDS at an atypical age, so clinicians must remain alert to it.

2553 / #EV0902

DETERMINATION OF BLOOD GROUP USING ELECTROPHORESIS

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Background and Aims: There is a need for specific determination of blood group antigens on erythrocytes for improvement of the quality of hemotransfusion therapy.

Methods: O, A, B and O washed erythrocytes with anti-A, anti-B absorbing ability were investigated for electrophoretic mobility with IgG complement dependent antibodies.

Results: The contact of anti-A heated serum and complement with A erythrocytes resulted in their decreased electrokinetic potential on the contrary to the serum without anti-A and anti-B antibodies and increased after addition of the serum from O blood group person with anti-A and anti-B absorbing ability. Anti- B heated serum with complement decreased electrokinetic potential of B erythrocytes. Whereas both anti-A heated serum and serum from AB person with complement did not decrease the electrokinetic potential of O erythrocytes. Anti-B heated serum in the same manner decreased the electrokinetic potential of O blood group erythrocytes with anti-B absorbing ability. Anti-A IgG complement dependent antibodies decreased the electrokinetic potential of washed O erythrocytes with anti-A absorbing ability on the contrary to Ig M antibodies.

Conclusions: Evaluation of electrokinetic potential of erythrocytes with a set of IgG complement dependent antibodies might be considered for blood group type detection.

1431 / #EV0903

UNUSUAL PRESENTATION OF DVT

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Case Description: 56 year-old woman, with history of malignant thyroid neoplasm 15 years before, came to the ER due to painful swelling in the left supraclavicular region with one week of evolution, with subsequent appearance of edema in the left arm. She denied other complaints, a history of miscarriages, deep vein thrombosis (DVT), a family history of IAD or thrombophilia.

Clinical Hypothesis: Upper limb swelling may be due to several causes, among which are infections, neoplasies, heart failure or DVT.

Diagnostic Pathways: Neck CT revealed thrombosis of the left jugulo-subclavian axis and of the confluent jugulosubclavian and subclavian vessels, confirmed by a Doppler ultrasound. Clinical analysis with thrombocytosis months of evolution, with no changes in the other lineages. ESP, Immunoglobulins, Ferritin and viric markers without changes. No other symptoms. Discharged with outpatient follow-up, waiting immune study and thrombophilia study, mantaining hypocoagulation for 3 months.

Discussion and Learning Points: Acute deep vein thrombosis most commonly occurs in the lower limbs or pelvis. However, it can also develop in the deep veins of the upper limbs (4 to 13%), and it is important to have that possibility in mind. Upper limb DVT occasionally occurs as part of superior vena cava syndrome or results from a hypercoagulable state or compression of the subclavian vein in the thoracic outlet. Cancer is still a major risk

 DOI: 10.12890/2022_V9Sup1

factor for DVT, and while extensive patient workup for tumors is not recommended unless patients have increased cancer risk factors or symptoms suggestive of an occult cancer, in this particular case it was later revealed that the etiology was a previouly unknown gastric cancer.

390 / #EV0904

NEW ONSET DIABETES, SOMETHING ELSE?

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Case Description: A previously fit 58-year-old male presents to the emergency room with progressive increase in the abdominal perimeter and abdominal pain, within the last two weeks. He also reports weight loss (15 Kg) in the last two months. He was recently diagnosed with diabetes mellitus (DM), one month ago. He has heavy drinking and smoking habits. He denies any family history of diabetes or cancer.
Clinical Hypothesis: Malignant neoplasm, chronic hepatic disease
Diagnostic Pathways: Observation: stable vital signs, positive ascitic wave. No collateral circulation. Blood work: normocytic anemia, normal platelets and bilirubin. HIV, hepatitis B, C were negative. Paracentesis: cloudy yellow liquid, with a Serum Ascites Albumin Gradient <1.1, total protein content of 3g (range <1g) and amylase of 11U/L, suggesting peritoneal carcinomatosis. Further image studies showed areas of thickening and peritoneal enhancement. Also, marked parachimentous atrophy and abundant surrounding collateral circulation of the pancreas, with heterogeneous pancreatic head. Tumor marker CA 19.9 > 1200 U/mL (<37 U/mL). No relevant finding in the colonoscopy. One of the peritoneal implants was biopsied confirming the hypothesis of metastatic pancreatic adenocarcinoma.
Discussion and Learning Points: New-onset diabetes can be an early manifestation of PC, especially in a thin adult without a family history of diabetes. DM can represent both a risk factor and a consequence of PC. Both the prevalence of DM and the incidence (and mortality) of PC will continue to rise as the population ages. With this clinical case the authors intend to raise awareness for the complex relationship between these two diseases, a field in need of further research.

564 / #EV0905

FROM THE KNEE TO THE LIVER

Rita dos Santos Marques, Tiago Mascarenhas, André Pinto, Ana Costa, Ivone Barracha

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Case Description: Male, 54 year-old, independent. He came to emergency room with pain above the right knee without ability to walk or move the whole leg, left chest pain with weight loss, which had started a month ago, without fever or cough. History of atrial fibrillation, liver steatosis, pulmonary emphysema associated to tobacco habits, cardiomyopathy associated to alcohol ingestion. At physical examination he had hepatomegaly and right thigh elastic and painful mass in the lower third.Lab test with high liver enzymes:ALT 40U/L;AST 127 U/L;FA 304 U/L;GGT 742 U/L.Chest X-ray: left mediastinic mass. Thoracic, abdominal and pelvic CT: paramediastinal solid mass in the superior lobe of the left lung (12x5cm). Multinodular liver. Left suprarenal mass (5.5cm).Solid and heteregoneous mass in the internal lower part of the right thigh (6x3.5cm). He had been hospitalized to find the ethiology and histology of the lesions. Clinical case had been presented at a multidisciplinary appointment and it was decided to biopsy the thigh lesion,whitch had revealed a hepatocellular carcinoma metastase. Viral serologies: HIV, HBV, HCV negatives and alpha fetoprotein 413,299 ng/mL. Definitive diagnosis: hepatocellular carcinoma with extensive metastasis. Because of the advanced stage of the disease,he had been hospitalized in palliative care unit to pain control.He died at 30º day of hospitalization.
Clinical Hypothesis: Sarcoma with lymphatic, suprarenal, liver and pulmonary mestastases.
Diagnostic Pathways: Thoracic, abdominal and pelvic CT Viral hepatitis serologies alpha fetoprotein biopsy the tigh lesion.
Discussion and Learning Points: This case report present us a patient with right lower tigh pain with solid swelling, which leaded to biopsy, which had allowed to reach the definitive diagnosis of hepatocellular carcinoma with metastasis. This case show a rare clinical presentation in which the symptoms of the metastases had leaded to the primary tumor.

466 / #EV0906

DYSPHONIA AS INITIAL PRESENTATION OF PRIMARY MEDIASTINAL B CELL LYMPHOMA

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Case Description: The authors present the case of ex-smoker 60-year-old male with ischemic heart failure with reduced ejection fraction, atrial fibrillation, type 2 diabetes mellitus and dyslipidemia, who was sent to an Otorhinolaryngology due to complaints of dysphonia. Left vocal cord paralysis was noticed. There was a history of two-months dysphonia, orthopnea and weight loss of 8 kg. He denied fever, sweating, syncope, chest pain, palpitations, dysphagia or stridor. The initial laboratory study revealed mild hypercalcemia and high LDH.
Clinical Hypothesis: Laryngeal nerve compression was considered and cervico-thoracic CT scan was requested.
Diagnostic Pathways: Cervico-thoracic CT scan showed a mediastinal lesion with extensive invasion, conditioning vascular and tracheal entrapment with pre-occlusion of the superior vena cava, suggesting a lymphoproliferative disease. It also showed left massive pleural effusion. Diagnostic thoracentesis detected

 DOI: 10.12890/2022_V9Sup1

evidence of exudate with predominance of lymphocytes. The bacteriological culture, cytology and immunophenotyping were negative. Biopsy of the mediastinal lesion showed primary mediastinal B cell lymphoma (PMBCL) and prednisolone was initiated. A stage II-B of Ann-Arbor staging system was determined based on data from medullogram, bone marrow biopsy, abdominopelvic CT and PET scans. Due to cardiac comorbidities, R-GCVP regime was used instead DA-EPOCH-R protocol, followed by radiotherapy of residual lesions.
Discussion and Learning Points: PMBCL is a rare subtype of aggressive B-cell lymphoma, usually more common in young adults. The 5-year survival rate is approximately 85%. It frequently manifests as a locally invasive disease involving the airways or vascular structures, which may lead to an oncological emergency.

1329 / #EV0907

WHEN AN ABDOMINAL DISCOMFORT WITH DIARRHEA TURNS INTO A DIAGNOSIS OF A LARGE B CELL LYMPHOMA

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Case Description: Female, 65 years old, agriculture worker. Sent to an internal medicine appointment from her family doctor due to persistent diarrhea and abdominal disconfort with 2 months evolution. When asked, she complained of stomach fullness sensation, lack of appetite, abdominal discomfort and loss of 10 kg in the last year. Upon clinical evaluation, there wasn't any alteration to mention and general blood tests were within normal values.
Clinical Hypothesis: We hypothesized inflammatory intestinal diseases, infectious diseases, gastrointestinal neoplasias.
Diagnostic Pathways: A colonoscopy and endoscopy were performed showing some non-bleeding hemorrhoids. Abdominal ultrasound mentioned some unspecific liver and pancreatic changes, so, a CT scan was asked, showing an adenophatic conglomerate at high peritoneum with some mesenteric conglomerates, as low lombo-aortic and iliac adenopathies, guiding to a potencial linfoproliferative disease. A biopsy of the conglomerate showed a B-cell lymphoma leading us to ask for an urgent hematology appointment. Chemotherapy was initiated and a PET scan asked, showing an hypermetabolic mesogastriclesion (Deauville 3) and right paratraqueal hypermetabolic lymph nodes (Deauville 2), leading to a radiotherapy intervention.
Discussion and Learning Points: Despite the normal physical examination and blood analysis, a more extensive medical history and imaging tests should be asked, and as in these case, the unsual presentations of lymphoproliferative diseases should be held in mind. There is known that B cell lymphoma is the most common hemathologic neoplasia, with the larg B-cell type being the commonest and the absence of palpable lymph nodes may delay its diagnosis.

2516 / #EV0908

PLEURAL EFFUSION, IS IT HEART FAILURE, TUBERCULOSIS OR NEOPLASM?

Abelcineyd Camble, Mafalda Duarte, Fernando Aldomiro, Raquel Sousa, Vasco Tiago, Rita Sismeiro

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Case Description: A 94-year-old man is admitted for dyspnea, easy fatigue, and mild chest pain. As relevant antecedents he had congestive heart failure (HF) with multiple admissions due to decompensation and chronic kidney disease (CKD). The physical examination showed edema of the lower limbs and no palpable adenomegalies. The arterial blood gas showed type II respiratory failure. Besides mild lymphopenia and thrombocytopenia and an increase in the baseline creatinine, there were no relevant findings in the laboratory analyses. He was started on IV diuretics and continuous non-invasive ventilation with progressively higher O2 needs. Chest x-ray and CT scan showed bilateral pleural effusion. Thoracentesis was performed and hematic fluid was removed. The biochemical analysis of the fluid revealed it was an exudate with further exclusion of mycobacterial infection.
Clinical Hypothesis: Diffuse Large B Cell Non-Hodgkin's Lymphoma (DLBCL-NHL).
Diagnostic Pathways: Cytological examination was positive for neoplastic cells high-grade DLBCL-NHL. Abdominal and pelvic CT scan showed a solid mass of approximately 7 cm adjacent to the elevator ani muscle with some calcifications. Due to the patient clinical status, it was decided not to proceed with the biopsy and also not to start any target therapy, only starting corticotherapy.
Discussion and Learning Points: In the multiple previous admissions pleural effusion was always assumed to be due to decompensated HF and CKD but this showcases the importance of keep in mind less common causes.

57 / #EV0909

ONE IMAGE DIFFERENT VIEWS

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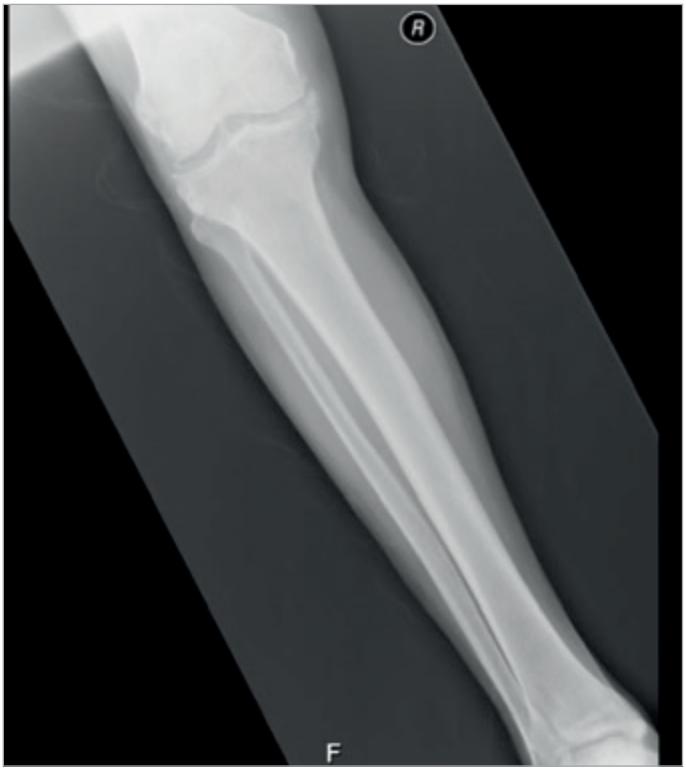
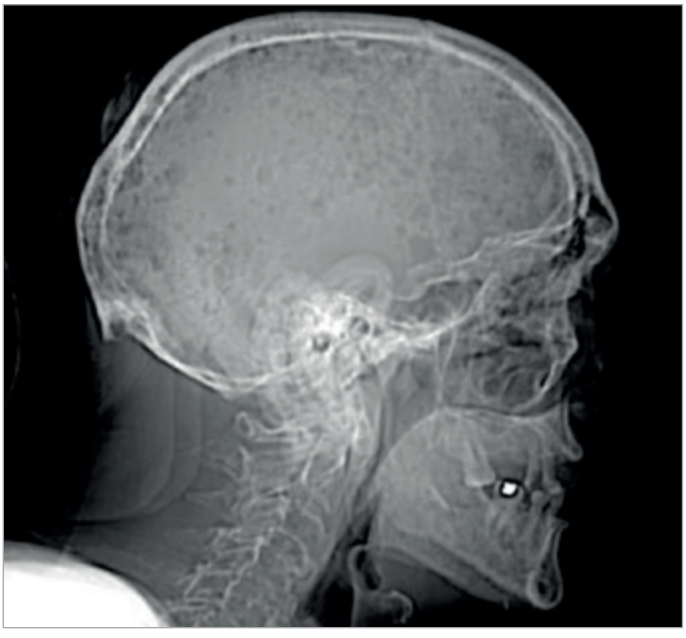
Case Description: A 72-year-old man comes to the emergency room with a long standing back pain and a cervical CT relevant for a C7 collapse and multiple lytic lesions except on tibia (Figure 1-2-3).
Clinical Hypothesis: Multiple myeloma, hyperparathyroidism.
Diagnostic Pathways: Further investigation revealed a slight hypercalcemia, anemia and chronic kidney disease, and a possible multiple myeloma (MM) was suspected.

DOI: 10.12890/2022_V9Sup1

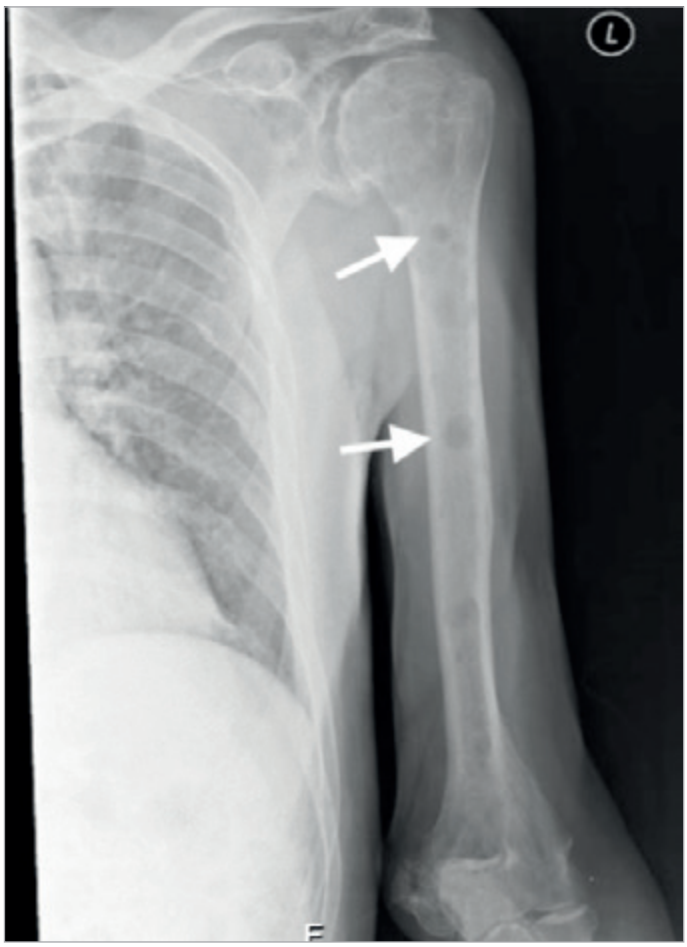
Discussion and Learning Points: Lytic lesions of bone are the hallmark of MM, seen in around 80% of patients at presentation. The pattern of scattered sharply demarcated lucencies in the calvarium has been referred to as a raindrop skull (Figure 2). Although quasi-pathognomonic, this pattern is closely simulated in hyperparathyroidism (salt and pepper pattern) or by diffuse bone metastasis. Skull lytic lesions in MM are differentiated from metastasis by the more uniform size of the lytic lesions in myeloma, and the existence of both large and small lesions favors metastatic disease.



#EV0909 Figure 1.



#EV0909 Figure 2.



#EV0909 Figure 3.

1678 / #EV0910

A RARE CASE OF PROFOUND DEEP VENOUS THROMBOSIS – WHEN A MUTATION IS NOT ENOUGH!

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Background and Aims: Venous thromboembolism (VTE) is the second most common cardiovascular disease with an incidence of 1-5/1000 individuals/year. In 40% of cases, it is possible to identify a hereditary thrombophilia.

Methods: Case Report.

Results: Our case is a 69-year-old man with one-week history of pain and swelling of the posterior region of the right leg. He had a history of hypertension, chronic gastritis and benign prostatic hyperplasia. The patient had no personal or family history of VTE or thrombophilia. He denied a history of surgery or recent long-haul travel. Physical examination showed a swollen and tender area measuring 4 to 5 cm in the inferior region of the right gastrocnemius muscle, with pain on palpation and exuberant collateral varicose veins. Doppler ultrasound revealed posterior tibial vein and internal saphenous vein thrombosis. Hypocoagulation was started with a direct oral anticoagulant,

 DOI: 10.12890/2022_V9Sup1

which the patient maintained during 6 months with resolution of vein thrombosis. The etiological study included a thrombophilia screening, which revealed heterozygous G1691A Factor V mutation, MTHFR A1298C homozygous mutation and anti-thrombin III deficiency. Hypocoagulation was reintroduced with warfarin, without new thrombotic episodes objectified.
Conclusions: The presence of multiple hereditary thrombophilic factors led to the occurrence of VTE in this patient. Moreover, although DOACs are the preferred anticoagulants in the treatment of VTE, there are still no specific guidelines for their use in patients with hereditary thrombophilias. It is rare, but not impossible, to identify more than one thrombophilia in the same individual. When combined, thrombophilias induce and potentiate each other, significantly increasing the risk of VTE.

1774 / #EV0911

DISSEMINATED KAPOSI'S SARCOMA AS A PRESENTING SIGN OF HIV

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Background and Aims: Kaposi sarcoma (KS) is a rare multi-focal vascular tumor associated with HHV-8. Visceral involvement is present in approximately 25% of human immunodeficiency virus (HIV)-positive patients with KS, however the advent of anti-retroviral therapy (HAART) has been associated with a substantial decrease in its incidence and severity.
Methods: Case Report.
Results: Our patient is a 48-year-old man that was admitted for excruciating pain associated with non-pruritic violaceous skin lesions scattered throughout the body, including face, genital region and feet. He also had a history of weight loss, asthenia, anorexia and fever. Blood tests revealed anaemia, lymphopenia and elevation of inflammatory parameters. Serology for HIV-1 was positive and CD4 count was 52/mm^3. He underwent bronchoscopy, which showed dispersed violet lesions in the bronchial mucosa and *Pneumocystis Jirovecii* DNA in the bronchoalveolar lavage. Our patient maintained fever even after treatment of PJ and initiating HAART. Upper digestive endoscopy showed a gastric ulcer with violet edges, histologically compatible with KS. We excluded other opportunistic infections and HIV-associated lymphomas. Positron emission tomography documented diffuse lymph node involvement of neoplastic aetiology. Thus, fever was assumed in the context of disseminated KS with skin, lung, GI tract and lymph node involvement. Chemotherapy with doxorubicin was initiated.
Conclusions: This case presents a severe manifestation of KS as a presenting sign of HIV. Early diagnosis and HAART allow us to consider severe and disseminated presentations to be rare, however the aggressiveness of this case should raise awareness of the importance of HIV testing, and highlights the importance of early diagnosis and treatment.

262 / #EV0912

ACUTE INTERMITTENT PORPHYRIA: A DIAGNOSTIC CHALLENGE IN WHICH TIME COUNTS.

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Case Description: A 27-year-old woman with no history except cannabis use who consulted for abdominal pain associated with vomiting. After 48 hours of admission, he presented several tonic-clonic seizures and clinical deterioration progressed with bradypsychia, behavioral alteration and dysautonomic clinic with hypertension and tachycardia. Motor neuropathy also appeared with tetraparesis, paresthesias and neuropathic pain in extremities. She suffered sudden cardiorespiratory with transfer to the ICU, where it evolved unfavorably, resulting in the death of the patient.
Clinical Hypothesis: At first we thought of an autoimmune encephalitis and SIADH syndrome. But, after the dysautonomic clinic appeared, our focus shifted to acute porphyria.
Diagnostic Pathways: Cranial CT was performed with hypodense focal areas of subcortical predominance and brain MRI with alteration of cortex signal with involvement of U fibers in all lobes, highlighting at that time a plasma sodium of 116 mEq/L. Hoesch test was performed with a positive result, and a positive result was received for porphyrins in urine, as well as a genetic study (heterozygote of variant c.346C>T of the HMBS gene) confirming the molecular diagnosis of Acute Intermittent Porphyria (PAI).
Discussion and Learning Points: IAP is a rare entity, characterized by crises of abdominal pain (85% of the cases), psychiatric disorders and neurological involvement. Neuroimaging may be useful for diagnosis (syndrome of reversible posterior encephalopathy, characterized by vasogenic edema in the cortex). Diagnosis is difficult with variable and non-specific symptoms. Clinical findings and urinary outcomes support the diagnosis of PAI. Genetic testing is the gold standar. Treatment with Hemina and IV glucose have been shown to be effective.

1122 / #EV0913

RECURRENT VENOUS THROMBOEMBOLISM IN A WOMAN WITH 4G/5G PAI-1 POLYMORPHISM

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Case Description: We outline the case of a 33-year-old nulliparous woman, with a family history of deep venous thrombosis (DVP) and pulmonary embolism (PE) and a personal history of DVP of the left inferior limb at 13 years-old, having suspended warfarin for no apparent reason. She presented with pain and oedema of the left leg. Physical examination revealed swelling, warmth, erythema,

 DOI: 10.12890/2022_V9Sup1

left calf pain on its compression and on dorsal flexion of the foot.
Clinical Hypothesis: Deep vein thrombosis secondary to a thrombophilia.
Diagnostic Pathways: Venous ultrasound showed ilio-femoro-popliteal DVT and occlusive thrombophlebitis of the left internal saphenous vein. Thoraco-abdomino-pelvic CT angiography excluded PE but confirmed thrombosis extension to the inferior vena cava and splenic vein with associated splenic infarction. Neoformative lesions and antiphospholipid syndrome were excluded. The genetic study revealed heterozygosity for a PAI-1-675 (4G/5G) variant of plasminogen activator inhibitor. No mutations in the prothrombin gene (G20210A), Factor V Leiden, protein C and S, or antithrombin III were identified. She was promptly hypocoagulated with enoxaparin and later discharged under warfarin. She was reassessed in an outpatient consultation 3 months later with a favorable evolution and no disease recurrence.
Discussion and Learning Points: Meta-analyses have demonstrated that the 4G variant at position -675 of the PAI-1 gene has a statistically significant association with increased risk of venous thromboembolism. Early diagnosis of hereditary thrombophilia in childbearing age women is utterly important due to its potential implications in both the choice of oral contraception, as well as in the need for anticoagulation during pregnancy and puerperium.

2617 / #EV0914

A LIFE SAVING LOSS OF VISION

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Case Description: A 56 year old male patient consulted in emergencies relating blurred vision and a progressive loss of vision of his left eye in the previous six months. The patient was a current smoker, with no other medical background. The ophthalmologists observed left choroid damage and called the Internal Medicine team since they thought it could be metastasis or an infectious disease. The patient also reported asthenia and loss of 6-7 kilograms. Emergency tests only showed a small left pleural effusion on the chest X ray.
Clinical Hypothesis: Choroid metastases: melanoma or lung cancer as first line options. Infectious disease: tuberculosis or toxoplasmosis.
Diagnostic Pathways: Broad spectrum tests looking for cancer and infections were performed. Quantiferon test was positive although sputum cultures were negative. The patient was referred to dermatology, ruling out melanoma. A whole body CT scan showed a 30x25mm mass in left lung hilum, mediastinum lymphadenopathy, diffuse blastic bone lesions and liver lesions. Multiple biopsies were made on a bronchoscopy. The final diagnosis was lung adenocarcinoma ALK-positive stage IV.
Discussion and Learning Points: Eyes are not a routine place where screening for metastases is performed, so anamnesis is crucial, since 34-44% of patients with lung cancer and choroidal metastases present ocular symptoms as the first sign of the disease. Furthermore, although the prevalence of symptomatic choroidal metastases is low, they have a better prognosis due to earlier diagnosis. In addition, it is important to search in other locations since most intraocular metastases present other sites of simultaneous metastases.

2113 / #EV0915

ERYTHEMA NODOSUM?

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Case Description: Erythema nodosum is the most common type of panniculitis. It's a painful inflammatory process involving the septa between subcutaneous fat lobules, with an absence of vasculitis and presence of radial granulomas. Generally idiopathic, can be the first sign of a systemic disease: tuberculosis, bacterial or fungal infection, sarcoidosis, inflammatory bowel disease or cancer.1 This is a case report of an 80-year-old woman with history of arterial hypertension and osteoporosis, medicated with enalapril 5 mg 2id, torasemide 5 mg id and ibandronic acid 150 mg monthly, presented with a painful, tender, erythematous, subcutaneous nodule located on the anterior surface of the lower left leg.
Clinical Hypothesis: The patient was submitted to a lesion biopsy, with pathology showing septal panniculitis, and medicated with naproxen. As there was no improvement, prednisolone was started.
Diagnostic Pathways: Without response to therapy and worsening of the lesion, she was admitted to the internal medicine service for new study. Magnetic resonance imaging of the leg presented a nodular thickening that involved the cortex of the tibia. New biopsy revealed a spindle cell sarcoma. She was referred to orthopedics and submitted to supracondylar amputation of the left leg.
Discussion and Learning Points: This case reflects the importance of patient follow-up beyond the initial diagnosis, the need to reassess the first hypothesis in absence of response to therapy, to correctly treat the patient, which, in this case, allowed the diagnosis of a rare type of tumor.

Schwartz RA, Nervi SJ. Erythema nodosum: a sign of systemic disease. Am Fam Physician. 2007 Mar 1;75(5):695-700. PMID: 17375516.

 DOI: 10.12890/2022_V9Sup1

201 / #EV0916

BACK AND SHOULDER PAIN LEADS TO RENAL CELL CARCINOMA

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Case Description: A 63 year-old weaving newly retired male arrived in the emergency room complaining of pain on the back of the neck and left shoulder worsening the previous 4 months. Heavy work on agriculture. Physical examination presented obesity, hypertension and no other relevant findings. Left shoulder soft tissue echography and brain CT-Scan were normal. Abdominal echography revealed liver cirrhosis (alcoholic). Ambulatory cervical spine CT-Scan presented lytic lesion on C7 measuring 33x17x40mm with medullary compression. The patient was admitted in the internal medicine ward for additional studies.
Clinical Hypothesis: Cervical spine secondary lesion of unknown primary tumor origin.
Diagnostic Pathways: The additional studies such as thyroid, neck and renal echography and upper endoscopy showed no lesions nor adenopathy. Analytical findings were normal and renal function was spared. CT scan of the thorax, abdomen and pelvis revealed lytic lesions on T5, T12 and a large volume mass on the right kidney middle lobe whose biopsy revealed a clear renal cell carcinoma, stage 2. In the meantime received radiotherapy for secondary lesions.
Discussion and Learning Points: It is essential to find the unknown primary cancer site in order to predict evolution and develop the best treatment approach. In this case, multiple myeloma and other oncological diseases were ruled out. IMDC risk was intermediate and cabozantinib was not approved, so sunitinib was chosen.The diagnosis was made 1 month before the COVID-19 pandemic hit Portugal which allowed for a timely diagnosis and treatment even though with impact on follow-up.This case proves how important it is to do a thorough diagnostic search of pain causes.

878 / #EV0917

COVID-19 IS NOT THE ONLY CAUSE OF FEVER

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Case Description: A 62 year-old female arrived in the emergency room in March 2020 complaining of fever, headache, lethargy, photophobia and vertigo. On physical examination she presented confusion and bilateral proptosis. On the left eye there was mydriasis with reduced direct pupillary response, blindness and complete ophtalmoplegia of movements and on the right eye, severe reduction of vision, complete palpebral ptosis with vertical gaze palsy and limited horizontal gaze. SpO2 was 88% without oxygen. She was admitted in the respiratory ward, due to a suspected high risk contact with a COVID-19 patient (later ruled out).
Clinical Hypothesis: Intracranial space occupying lesion of the skull base with involvement of cavernous sinuses billaterally and assymetrically, of infectious or neoplasic aetiology.
Diagnostic Pathways: Due to her altered neurological state, focal neurologic signs and no respiratory findings, a brain CT- Scan was performed. It revealed sella turcica erosion and enlargement due to a sellar lesion with mass effect extending to sphenoidal sinus and ethmoidal cells. Lumbar puncture, blood and urinary tests were collected and therapy started (ceftriaxone, vancomycin, acyclovir). No infectious agents were found. Analytical studies showed hyponatremia and panhypopituitarism. Brain MRI presented a 30 mm pituitary macroadenoma withoptic chiasm compression. Surgical removal revealed corticotrophin adenoma and gland apoplexy.
Discussion and Learning Points: Corticotroph adenomas are rare and slowly growing tumors which difficult a timely diagnosis. Tumor growth might evolve to apoplexy, a life-threatning condition that causes fever and results in complete endocrine failure of the gland. Prompt ruling out of COVID-19 suspicion allowed a faster diagnosis and treatment as pituitary apoplexy was causing fever.

1093 / #EV0918

PSEUDOMYXOMA PERITONEI – A CASE OF PERSISTENT ASCITES

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Case Description: We present the case of a 44-year-old female with endometriosis treated with oral estrogen contraceptive. Due to persistent pelvic pain and abnormal uterine bleeding a pelvic magnetic resonance (MRI) was performed. It revealed a cervical polyp, an endometriosis nodule involving torus uterinus, vagina and rectum. Moderate pelvic ascites was also found. Total hysterectomy, bilateral adnexectomy with resection of rectovaginal septum nodule was performed. Histological exam was compatible with endometriosis. After surgery ascitic fluid was analyzed revealing reactive mesothelial cells. No atypical cells were found. One year after surgery, abdomen and pelvis computed tomography (CT) identified a liquid collection on the right iliac region. Patient was referred to Internal Medicine.
Clinical Hypothesis: Endometriosis related ascites was considered. Patient started goserelin acetate and was submitted to routine imaging and clinical revaluation.
Diagnostic Pathways: Serial pelvic exams documented increase of a heterogeneous ascitic fluid in the rectouterine pouch. De novothickening of cecal appendix was noticed. Diagnostic paracentesis revealed a viscous, gelatinous acellular material suggestive of mucinous ascites. Pseudomyxoma peritonei (PMP) was admitted. After multidisciplinary discussion patient was

 DOI: 10.12890/2022_V9Sup1

proposed to appendicectomy, right hemicolectomy, peritonectomy followed by heated intraperitoneal chemotherapy.
Discussion and Learning Points: PMP is a rare and intractable clinical syndrome with accumulation of copious amounts of mucinous ascites and peritoneal implants, leading to progressive obliteration of the peritoneal cavity and bowel obstruction. Most common sites of origin are tumors of the appendix and ovary. Despite being a rare cause of ascites, PMP must be considered in the differential diagnosis of ascites, particularly if gelatinous.

1362 / #EV0919

MALIGNANT PLEURAL EFFUSION: A DIAGNOSTIC CHALLENGE

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Case Description: An 89-year-old man with a background history of atrial fibrillation, heart failure with preserved ejection fraction and left leg amputation for a malignant melanoma of the plantar surface, presented with dyspnea, orthopnea and generalized edema. He denied chest pain, cough, fever and any other symptoms. Pulmonary auscultation revealed a reduced vesicular murmur in the lower two-thirds of the right hemithorax. The initial study showed hypercapnic respiratory failure, slightly elevated C-reactive protein without leucocytosis or neutrophilia. Chest radiography revealed a large right pleural effusion.
Clinical Hypothesis: Decompensated heart failure with acute respiratory failure requiring continuous noninvasive ventilation
Diagnostic Pathways: We perform diagnostic and therapeutic thoracentesis. Analysis of pleural fluid showed an exudate with 558 nucleated cells/µl (44% neutrophils, 51% other cells). It was necessary to perform another two therapeutic thoracentesis for symptomatic relief because of recurrence of the pleural effusion. Fluid cytology was negative for the presence of malignant cells in three different samples. Chest CT showed four small nodules (<10 mm) and areas of ground glass opacities in the right lung suggestive of infection. Cultural exam of the second pleural fluid reveals *Streptococcus salivarius* so antibiotic was started. Given the history of melanoma, thoracoscopic pleural biopsies were obtained. Histology was compatible with malign melanoma metastasis.
Discussion and Learning Points: Although cytological analysis is helpful in the etiologic diagnosis of pleural effusion, the sensitivity detecting malignant cells is only 60%. Consequently, if there is a clinical suspicion of malignant cause, additional investigations should be performed.

2024 / #EV0920

MACROCYTIC ANEMIA

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Case Description: We are dealing with an 83-year-old male patient with macrocytic anemia with high transfusion requirements. When he was admitted, he had an hemoglobin of 4.8g/dl and a MCV of 112fl.
Clinical Hypothesis: In the presence of macrocytic amenia we must consider three options: megaloblastic anemia, non-megaloblastic anemia (MDS, alcoholism, hypothyroidism) and false macrocytosis (reticulocytosis or crioaglutinins).
Diagnostic Pathways: The first thing that we should do in this case is a blood test, with a thyroid and anemia study, in which, we will include: B12 vitamin, folic acid, reticulocytes, bilirubin and LDH. In addition, we will perform a peripheral blood smear. In our case the smear and the folic acid and vitamin B12 levels were normal. However, we found reticulocyte percentage of 11%, with normal LDH and bilirubin. Considering the high risk of bowel bleeding, a high and low endoscopy were performed, with no significant findings. Also, a fecal occult blood test was made with positive result. Finally, to be able to study the small bowel, an endoscopic capsule was performed. At the same time empirical treatment with thalidomide and octeotride was started. After the treatment was started the patient did not require new transfusions anymore, and left the hospital with a hemoglobin of 10.4 g/dl.
Discussion and Learning Points: With this case we wanted to highlight the importance of the differential diagnosis of all macrocytic anemias. In most cases it will be megaloblastic, but we have to keep in mind the other possibilities. We can not forget false macrocytosis and pay attention to reticulocyte level.

2691 / #EV0921

PLEURAL LYMPHOID NEOPLASM WITH PLASMABLASTIC/PLASMACYTIC DIFFERENTIATION

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Case Description: Male, 98 years old, partially dependent, cognitively healthy, went to the ER due to dyspnea, orthopnea and constitutional condition with 3 months of evolution. Chest X-ray with rigth pleural effusion having performed thoracentesis with a 1450 cc output with serohematic appearance, predominance of polymorphonuclear cells.
Clinical Hypothesis: Malignant pleural effusions are frequent but it is sometimes difficult to recognize the primary tumor that gave

 DOI: 10.12890/2022_V9Sup1

rise to it.
Diagnostic Pathways: Immunophenotyping of pleural fluid: presence of 59% of plasma cells, with abnormal phenotype: CD38+, CD138+, CD19-, CD56+, weak CD45+. Additional markers: CD28+/- weak, CD27-, CD117-, CD81+. Peripheral blood electrophoresis: monoclonal peak in the gamma region. Free light chains kappa blood 34.43 mg/dL Kappa/lambda ratio blood 15.58 and urine 13.90. Skeletal X-ray and CTAP CT scan without evidence of bone lesions or suspiciously characteristic masses.
Pleural biopsy was performed whose histology lymphoid neoplasm with plasmablastic/plasmacytic differentiation. It is not possible to make the differential diagnosis between plasmacytoma/plasmablastic myeloma (most likely hypothesis) and lymphoma with plasmablastic differentiation.
Prednisolone and cyclophosphamide were started, but due to unfavorable evolution, they were suspended and comfort measures were privileged.
Discussion and Learning Points: The diagnostic challenge of identifying the primary responsible for a malignant effusion increases when it is a pleural tumor, per se, already relatively rare and this one, in particular, with atypical characteristics.

2385 / #EV0922

IMMUNE THOROMCYOPENIC PURPURA AS A RARE PRESENTATION OF HODGKIN'S LYMPHOMA

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Case Description: A 47-year-old male patient, with no past medical history that was admitted for an incidental finding of thrombocytopenia of 1000 U/L, mucosal petechia, and diffuse purpura He denied gastrointestinal or genitourinary hemorrhages, febrile illness, B symptoms or medication exposure. A diagnosis of immune thrombocytopenic purpura (ITP) was made and he was treated with steroids with an increase in the thrombocytes count.
Clinical Hypothesis: The patient was first diagnosed with immune thrombocytopenic purpura that can be secondary to drug exposure or secondary to infectious diseases, DIC, autoimmune diseases or other hematological malignancies.
Diagnostic Pathways: Laboratory workup included hepatitis B, hepatitis C, HIV, ANA, P-ANCA, C-ANCA, APLA that were all negative. Immunoglobulins including IgM, IgA were mildly reduced. An abdominal ultrasonography demonstrated an enlarged spleen at 13 cm. A whole-body CT scan showed a slightlyenlarged spleen containing nonspecific lesions. Biopsies of the spleen and bone marrow did not yield a diagnosis.Subsequently, a PET CT demonstrated presence of disease above and below the diaphragm. A surgical biopsy of axillar lymph node landed a diagnosis of nodular lymphocyte predominant Hodgkin's lymphoma.
Discussion and Learning Points: To demonstrates that ITP can be the presenting sign of a wide range of hematological conditions To exemplify the though not commonly reported in adults, Hodgkin's lymphoma can present with ITP. To bring to the reader's attention that ITP can be the initial presentation of Nodular lymphocyte predominant Hodgkin's lymphoma, in addition to other lymphoproliferative disorders.

995 / #EV0923

MORE THAN MEETS THE EYE: PERIORBITAL AND ORBITAL METASTASIS OF BREAST CANCER

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Case Description: Female, 59 years old, independent, addmited to the Internal Medicine ward with new onset kidney failure (creatinine of 3.05 mg/dL) and periorbital edema (painless, hardened to palpation) with one month of evolution. She also complained of anorexia, nausea, vomit and weight loss (8 kg in one month) and fatigue. She had previous history of lobular breast cancer (pT3N1aM0) diagnosed in 2012 and was considered cured in 2019. During the time she was addmited her periorbital edema worsened (with progressive decrease in visual acuity) even though her kidney function improved.
Clinical Hypothesis: Orbital metastasis of breast cancer.
Diagnostic Pathways: Renal and vesical ultrasound revealed bilateral pyelocaliceal and bilateral ureteral ectasia, with a 20 mm left renal pelvis and a 19 mm right renal pelvis. A computerized tomography was performed, which revealed a probable primary stomach cancer with diffuse peritoneal metastasis. Gastric biopsy showed signet ring cells with low cellular cohesiveness in the gastric body. Lower eyelid biopsy was also performed and revealed cutaneous metastatis of breast carcinoma (proven by the immunohistochemical profile).
Discussion and Learning Points: A complete anamnesis and thorough physical exam are the key for an accurate diagnosis even when clinical presentation isn't common.

1024 / #EV0924

THE IMPORTANCE OF A CHEST RADIOGRAPHY

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Case Description: A 22 year old female, presented to a General Practitioner with history of tiredness, clear productive cough, intermittent fever, night sweats and weight loss for a month. After being empirically treated, with antibiotic therapy for 7 days

 DOI: 10.12890/2022_V9Sup1

without improvement, she went to the emergency department. Physical examination was unremarkable.
Clinical Hypothesis: Hodgkin's lymphoma.
Diagnostic Pathways: The chest radiograph revealed an opacification of the left hemithorax, with pleural effusion, and a widened mediastinum with an anterior mediastinal mass. A workup with chest CT and a biopsy of left supraclavicular adenopathy confirmed a Nodular Sclerosis Hodgkin Lymphoma.
Discussion and Learning Points: The differential diagnosis of anterior and superior mediastinal masses for thyroid tumours, thymoma, lymphomas, germ cells tumors and thoracic aortic aneurysm, may be early detected as a "shadow" demonstrated in the Chest X-ray. A chest radiograph is crucial for the appropriate and early diagnosis of these pathologies.

Gaillard, F. (2021). Differential for an anterosuperior mediastinal mass | Radiology Reference Article | Radiopaedia.org.

1941 / #EV0925

PEMBROLIZUMAB-LENVATINIB INDUCED TUMOR LYSIS SYNDROME IN A PATIENT WITH METASTATIC MELANOMA. A CASE REPORT

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Case Description: A 79 years old male presented to Carmel Medical Center with shortness of breath and severe weakness. Medical history included stage 4 metastatic melanoma treated with pembrolizumab-lenvatinib combination that was initiated 2 weeks prior to admission. On physical examination he looked severely ill and dyspneic, blood pressure 129/64 mmHg, pulse 100 bpm and SpO2 96% on supplemental oxygen.
Clinical Hypothesis: The main differential diagnoses were sepsis, tumor progression and complication of therapy.
Diagnostic Pathways: Laboratory tests revealed acute renal failure with elevated creatinine of 2.86 mg/dl (baseline 1mg/dl), hyperkalemia 6 meq/l, hyperphosphatemia 8.9 mg/dl, hyperuricemia 12.4 mg/dl and elevated LDH levels 3777 u/l. His blood gases revealed pH 7.176, PCO2 33 mmHg, lactate 4.6 mmol/l, HCO3 12.3 mmol/l. Under the working diagnosis of tumor lysis syndrome (TLS), intravenous fluid replacement was started along with rasburicase and broad spectrum antibiotics. Despite intensive treatment the patient succumbed and passed away.
Discussion and Learning Points: TLS is a well described complication of chemotherapy, especially in hematological malignancies. TLS is relatively uncommon in solid tumors treated with immunotherapy. To the best of our knowledge this is the first case of TLS in the context Pembrolizumab-Lenvatinib combination therapy. With the rising utilization of immunotherapy-based regimens, clinicians should be aware of this life-threatening complication and take preemptive measures to minimize its risk.

526 / #EV0926

A CASE OF ACQUIRED AMEGAKARYOCYTIC THROMBOCYTOPENIA TREATED WITH ELTROMBOPAG

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Case Description: A 49 year old diabetic male presented with history of fever and pain over right hip joint. Laboratory investigations showed thrombocytopenia (28,000). However worsening of thrombocytopenia was noted and he started to develop petechiae. Platelets were transfused but continued to fall. Amegakaryocytic picture was also noted on bone marrow. Parenteral followed by oral steroids were tried for thrombocytopenia but no response was noted. He was then started on thrombopoietin receptor analog eltrombopag to which he responded well. His platelets began to improve and was discharged on eltrombopag 50 mg once daily. Platelet counts at discharge was 34,000 with no bleeding manifestations. Platelet count on next follow up visit was 84,000.
Clinical Hypothesis: Infection associated bone marrow supression resulting in thrombocytopenia was intitially considered.
Diagnostic Pathways: Initially myleoma was suspected in view of anemia, elevated ESR and reversal of albumin globulin ratio but bone marrow examination and protein electrophoresis had ruled it out. Infection associated bone marrow suppression was next differential diagnosis, however thrombocytopenia continued worsen despite adequate control of infection. Hence, diagnosis of idiopathic acquired amegakaryocytic thrombocytopenia was considered.
Discussion and Learning Points: Thrombopoietin receptor analog eltrombopag is a treatment option for acquired amegakaryocytic thrombocytopenia

348 / #EV0927

HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS, LYMPHOMA OR JUST A VIRAL INFECTION?

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Case Description: A 35-year-old woman was hospitalized for fever with 2 weeks of duration, associated with myalgias, headache and arthralgias with an inflammatory rhythm. On physical examination, she had multiple palpable ganglia in the cervical and inguinal chains and a widespread erythematous rash. Blood tests showed anemia and leukopenia, hepatic cytolysis, LDH 1800 U/L and ferritin 12,800 mg/dl.
Clinical Hypothesis: Given the persistence of symptoms and very high ferritin, a possible hemophagocytic lymphohistiocytosis (HLH) secondary to viral infection or lymphoproliferative disease was raised. Not excluding HIV, *Toxoplasma*, Rickettsiosis, among

 DOI: 10.12890/2022_V9Sup1

other infections, as well as more remote hypotheses like adult Still's disease or IgA vasculitis.
Diagnostic Pathways: After excluding autoimmunity and infectious etiologies, a thoracoabdominopelvic computed tomography was performed, which revealed homogeneous hepatosplenomegaly and small generalized adenomegalies. Bone biopsy showed reactive marrow and myelogram revealed mild hemophagocytosis, insufficient to diagnosis. Despite the high soluble CD25 assay, the medullary study wasn't completely consistent. In this sense due to the lymphoma hypothesis, a liver biopsy was performed, which showed a pattern of acute hepatitis with reactive lymphocytosis, but without lymphoproliferative neoplasia. Despite the maintenance of the fever for 4 weeks, there were no other organ dysfunctions and the condition resolved spontaneously, favoring a viral etiology.
Discussion and Learning Points: HLH is a life-threatening syndrome of excessive immune activation where the prompt treatment is critical. Can be triggered by a variety of events that disrupt immune homeostasis, like lymphoma, EBV infection or rheumatologic disease. In our patient, although bone marrow analysis wan't consistent, she had some clinical and laboratory pointers to HLH.

722 / #EV0928

BUDD CHIARI SYNDROME AS A MANIFESTACTION OF A KIDNEY CANCER

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Case Description: An 87-year-old man with anticoagulated atrial fibrillation who consulted for constipation and loss of 10 kg of weight in the last 6 months. In emergency analytics, a hemoglobin of 6 g / dl stands out, for which reason he is admitted to Internal Medicine for study. At 24 hours of admission, pending further tests, he suffered a sudden deterioration in his general condition, decreased level of consciousness and jaundice. Urgent laboratory tests are requested showing AST 1954 U/l, LDH 1106 U/l, total bilirubin 1.5 mg/dl and coagulopathy not present on admission.
Clinical Hypothesis: Therefore, we consider the differential diagnosis of acute liver failure. In the absence of shock, administration of potentially hepatotoxic drugs, and considering an infectious cause as an unlikely option, an urgent CT scan is requested.
Diagnostic Pathways: This CT scan shows a solid right renal tumor suggestive of neoplasia. In the right renal vein an intravascular thrombus is observed that continues in the inferior vena cava, intrahepatic vein and up to the right atrium. The hepatic vein does not fire. These findings are consistent with Budd Chiari syndrome. After the joint assessment, given the rapid and serious deterioration of the patient, a conservative attitude was decided, dying 48 hours after diagnosis.
Discussion and Learning Points: Renal carcinoma is associated with inferior vena cava thrombosis in 2% to 10% of patients; it extends to the right atrium in only 1% of cases.

2444 / #EV0929

ABDOMINAL PAIN AND HYPEREOSINOPHILIA: THE LIGHT AT THE END OF THE TUNNEL. A CASE REPORT.

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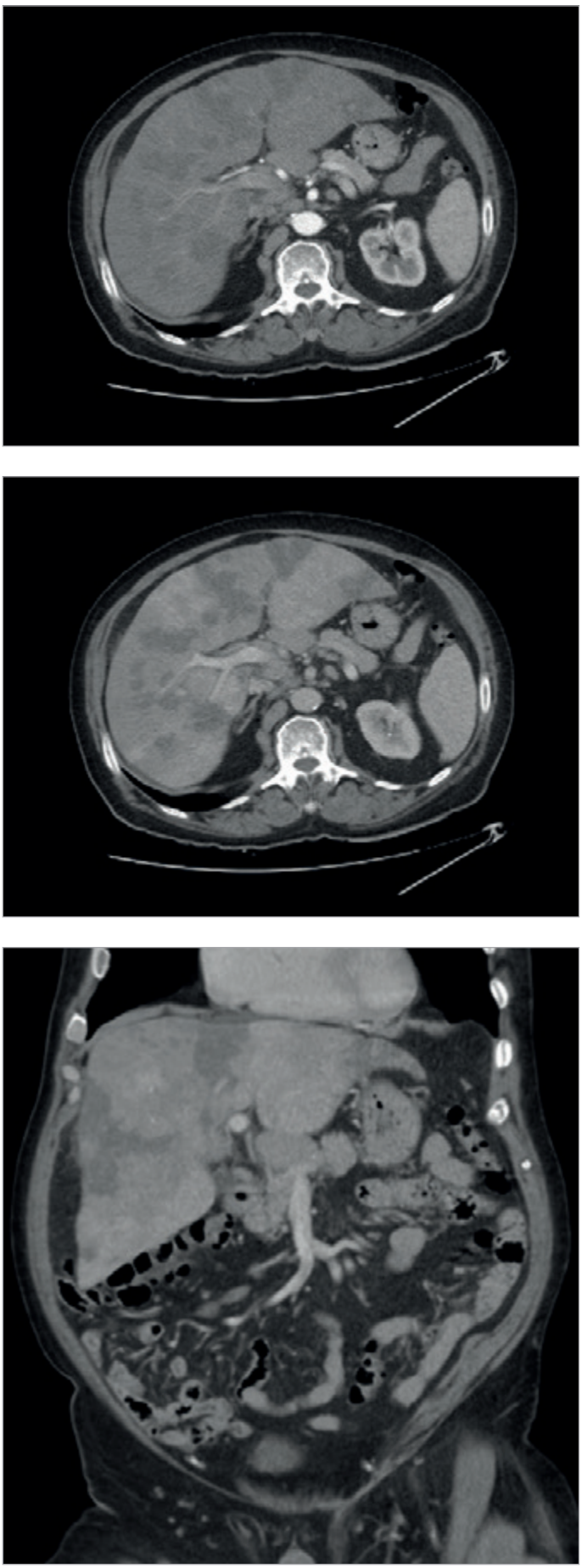
Case Description: A 76-year-old male with a history of eosinophilic esophagitis treated with PPIs and an aortic valve replacement by bioprostheses, comes in for abdominal pain. He reports 4 weeks of periumbilical pain that increases with deep breathing and after meals, accompanied by asthenia, hyporexia and weight loss. The patient used to go hunting and collecting wild foods like watercress.
Clinical Hypothesis: Initially, fascioliasis was suspected, supported by hypereosinophilia of about 2,420 cells/mcL, and dissociated cholestasis, but all parasitological studies were negative, including others infectious diseases.
Diagnostic Pathways: Abdominal US was normal but abdominopelvic CT showed hypodense hepatic lesions and adenopathies (Figure 1).
Afterwards, a liver biopsy was performed, showing accumulations of eosinophils, without malignancy data and normal microbiological studies. During follow-up, ascites was developed, revealing a transudate with eosinophils. No autoimmune diseases including vasculitis or neoplasms were found (negative PET-TC scan) At this point, Lymphocyte-variant hypereosinophilic syndrome (L-HES) was suspected, but peripheral blood studies did not reveal it. Bone marrow biopsy showed out abundant eosinophils without morphological alterations and molecular biology results were pending. Corticosteroids were started. Two weeks later, molecular biology sample confirmed the T-cell receptor clonality, and eosinophilia and symptoms were resolved.
Discussion and Learning Points: The hypereosinophilia diagnosis can be challenging, especially when classical causes are not found. In HES, tissue damage must be evaluated, and corticosteroids must start only if it´s present. If corticosteroids fail, other treatments like alpha-interferon or anti-IL-5 monoclonal antibodies are available. Although, given the low prevalence of HES, the evidence of therapeutic options is limited and it should be evaluated individually.

 DOI: 10.12890/2022_V9Sup1



#EV0929 Figure 1.

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QUESTION OF LOOKS

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Case Description: 82-year-old woman, operated on for bilateral breast carcinoma by bilateral mastectomy in 1992 together with adjuvant chemotherapy/radiotherapy and tamoxifen for 6 years, with no subsequent recurrence to date. Fully independent. She came to the emergency room due to diplopia of two months of evolution, especially to supraversion. She lost 14 kg. in the last three months since the death of her husband. Upon her arrival at the emergency room, conscious, oriented and collaborative, limitation of the supraversion of both eyes with retraction of the upper eyelids, with other versions and preserved ductions, preserved convergence, without nystagmus, with middle pupils not very reactive to light and accommodation (Complete exploration at https://youtu.be/ kUVsCR52cqE).

Clinical Hypothesis: Parinaud syndrome: classic triad of conjugated gaze palsy, convergence-retraction nystagmus and dissociation close to the lumen is only found in half of the cases, with diplopia being the most common associated symptom.

Diagnostic Pathways: Cranial MRI found an expansive lesion that affected the quadrigeminal lamina globally, which justified a decrease in the caliber of the aqueduct of Silvio and a mass effect on the posterior recess of the third ventricle, of 20x20x17.7 mm. An extension CT scan was requested, showing patchy liver tumor infiltration, generalized bone involvement, and medullary infiltration. A liver biopsy was performed, compatible with the primary mammary origin of the neoplasm.

Discussion and Learning Points: Pineal lesions that put pressure on the reflex nuclei of the quadrigeminal plate are the classic cause of Parinaud's syndrome. Neoplastic causes are more common in children/young adults, while vascular causes are more common in middle-aged/elderly people.

1660 / #EV0931

PULMONARY LYMPHANGITIC CARCINOMATOSIS AS A PRIMARY MANIFESTATION OF GASTRIC CARCINOMA

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Case Description: A 58-year-old man was admitted to the ER complaining of asthenia,shortness of breath,anorexia and generalized,non-specific,recurring abdominal discomfort.He had no relevant past medical history. Physical examination was positive for tachypnoea. Blood tests were normal,including arterial blood analysis.X-ray showed a reticular,diffuse,bilateral pattern and abdominal US had mild ascites.He underwent thoracic/abdominal/

DOI: 10.12890/2022_V9Sup1

pelvic CT-scan showing intra and interlobular changes in a "miliary pattern"". The patient was admitted for further examination. Additional testing excluded tuberculosis, sarcoidosis among other causes.Since he had abdominal complaints,an upper endoscopy was pursued revealing a gastric mass compatible with poorly differentiated carcinoma. During admission he developed a small volume pleural effusion,which was positive for adenocarcinoma cells. A final diagnosis of pulmonary lymphangitic carcinomatosis secondary to the gastric cancer was made.
Clinical Hypothesis: Miliary tuberculosis; nterstitial lung disease; heart failure; viral, atypical, or fungal pneumonia with an interstitial pattern; sarcoidosis; neoplastic disease.
Diagnostic Pathways: Abdominal, pelvic and thoracic CT-Scan; bronchoscopy and bronchoalveolar lavage
Discussion and Learning Points: Lymphangitis carcinomatosis is the malignant infiltration and inflammation of lymphatic vessels secondary to the metastatic spread of malignancy from a primary site. Only about 8% of pulmonary metastasis is caused by lymphangitic carcinomatosis and 80% of that is caused by adenocarcinomas. Could rarely be the initial presentation of an occult malignancy and that is why is so important to consider the possibility of lymphangitic carcinomatosis in patients with: progressive dyspnoea; no other known causes of interstitial lung disease;or an interstitial pattern demonstrated on CT or chest radiographs. When there is doubt about the exact diagnosis,a biopsy must be performed in order not to lose time for starting the necessary treatment.

2254 / #EV0932

SKIN AND LUNG INVOLVEMENT IN PATIENTS WITH LYMPHOMA

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Case Description: 72-year-old male with hospital admission for septic shock secondary to skin and soft tissue infection. During his admission, appearance of skin lesions compatible with cryoglobulinemia and lung involvement in relation to acute fibrosis pneumonia; in addition, he is diagnosed as marginal zone non-Hodgkin's lymphoma. Because this is a low-grade lymphoma, therapeutic abstention from the tumor process and steroid treatment of the associated paraneoplastic syndrome were decided, with clinical improvement.
Clinical Hypothesis: Cryoglobulinemia and acute fibrosis pneumonia as paraneoplastic syndromes of non-Hodgkin's lymphoma.
Diagnostic Pathways: Blood tests revealed normocytic and normochromic anemia, increased b2-microglobulin, IgG kappa monoclonal paraprotein and positivity for cryoglobulins. Chest CT was compatible with acute fibrosis pneumonia. PET-CT was performed in with pathological adenopathies at multiple levels. Skin biopsy was performed with the result of neutrophilic vasculitis with deposits of IgG, C3 and fibrinogen in superficial dermal capillaries, compatible with cutaneous vasculitis associated with cryoglobulonemia.
Discussion and Learning Points: Cryoglobulinemia is not uncommon as paraneoplastic syndromes, especially in its association with haematological tumors. Pulmonary involvement is rare in non-Hodgkin's lymphoma, even more so in low-grade lymphoma. They may appear before, simultaneously, or after the tumor is diagnosed. They usually respond to steroid treatment; although they tend to resort frequently.

1921 / #EV0933

SIADH, A POSSIBLE HIDDEN FACE OF A TUMOR

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Case Description: Hyponatremia is the most common cause of electrolyte disturbances. The symptoms usually begin when sodium levels drop below 120 mEq/L and are mainly neurological. The causes are numerous and, although it is an exclusion diagnosis, we should considerer the syndrome of inappropriate anti-diuretic hormone secretion (SIADH). We present a case of a 80 year old man who came to the emergency room (ER) due to fatigue during the past two weeks. The previous month, his family doctor prescribed indapamide and lercanidipine. After two weeks he complained of fatigue and after a blood test, was sent to the ER to correct the sodium levels.
Clinical Hypothesis: Yatrogenic hyponatremia, tuberculosis, paraneoplasic syndrome.
Diagnostic Pathways: Upon admission, the patient was oriented, cooperative and the objective exam was inocente. His blood analysis showed a sodium level of 109 mEq/L. Whilst he was in the ER, sodium correction was started but without success. Upon admission to the ward, a detailed clinical history revealed a tobacco habit of 52 packs per year and heavy alcohol consumption. The sodium study revealed a low plasma osmolarity with elevated urinary osmolarity suggestive of SIADH. Cortisol, TSH and NT-proBNP blood levels were normal. A chest x-ray revealed an opacity in the right apex. The thoracic-abdominal-pelvic CAT-scan showed a probable primary lung tumor with hepatic metastasis. A large mediastinal adenopathy was biopsied by ecoendoscopy and the histological results are pending.
Discussion and Learning Points: The authors wish to emphasize the importante of clinical history and therapeutical revision as well as metabolic response to therapy to detect possible paraneoplasic syndromes.

 DOI: 10.12890/2022_V9Sup1

2391 / #EV0934

FAVISM, SOMETHING TO CONSIDER IN ADULTS.

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Case Description: The deficit of glucose-6-phosphate dehydrogenase (G6PD) is an inherited autosomal recessive condition, more commonly seen in men. The enzyme deficit, if severe, may cause hemolytic anemia. The hemolysis occurs after situations with high oxidative stress levels like fever, infections or diabetic ketoacidosis or exposure to external triggers. The authors present a case of a 46 year old male, farmer, from Venezuela, living in Portugal for thev last two weeks. He came to the emergency room due to asthenia, anorexia, nausea, malaise, sweating and dark urine for the last 4 days. The patient also noticed icteric sclera during this period of time. No priors of interest. During data collection, he realized he had eaten broad beans for the first time 4 days previously at lunch and dinner.
Clinical Hypothesis: At this point we consider hemolytic anemia due to hemoglobin illnesses, enzyme deficits, membrane illnesses, hypersplenism and paroxysmal nocturnal hemoglobinuria.
Diagnostic Pathways: The objective exam highlighted skin and sclera jaundice. Blood tests revealed an hemoglobin of 7,9 g/l (VGM 102 fL, 33.1 pg) , ALT 72 UI/L and AST 154 UI/L, total bilirubin of 13.5 mg/dl and direct bilirubin of 0.90 mg/dl. Serologies were negative. The ultrasound had no major abnormalities. The quantification of erythrocyte glucose-6-phosphato deshydrogenase showed a value inferior to 1 IU/g Hb.
Discussion and Learning Points: The authors want to enhance the importance of taking a detailed clinical history (which take into account a patient's eating and cultural patterns). That can provide sufficient evidence to include rarer pathologies in the differential diagnosis.

2204 / #EV0935

CITROBACTER BRAAKI BACTERIEMIA IN ACUTE MYELOID LEUKEMIA PATIENT

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Case Description: Background *Citrobacter* bacteria (*C. braakii*) are gram-negative anaerobic bacilli, known to cause infections, particularly in immunocompromised patients. Although good responses to antibiotics were registered to the common strains of *Citrobacter*, infections due to *C. braakii* were rarely reported. Herein, we describe a case of a 63-year-old male with severe lower limb infection during the chemotherapy treatment program for acute myeloid leukemia (AML). He was undergoing a chemotherapy protocol based on azacitinide and venetoclax. Both of these agents had shown promising efficacy in the treatment of patients with AML who were ineligible for standard induction therapy. However, there is an increased risk in the incidence of febrile neutropenia along with the treatment. After four cycles of chemotherapy, he was still severely neutropenic and turned out to be admitted to the emergency room with fever, skin rash, and pain in the lower left limb. The laboratory data showed pancytopenia and markedly elevated c-reactive protein level.
Clinical Hypothesis: Based on the symptoms and the laboratory results the suspicion of bacteremia, with a skin starting point, was soon raised.
Diagnostic Pathways: Later on, blood cultures identified a *C. braakii*, so antibiotics were given according to the antibiogram which helped improve his status.
Discussion and Learning Points: This case is important to show the connection between this unusual pathogen and the immunocompromised state inherent to the patient's disease. Albeit the use of antibiotics first empirically and then adjusted to the antibiogram succeeded, more information is needed to better understand the behavior of *C. braakii* in severely immunocompromised patients.

1056 / #EV0936

A CASE OF AN ABDOMINAL MASS: FOLLICULAR LYMPHOMA

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Case Description: A 52-year-old woman presented to emergency department complaining of severe pain in abdomen that begun 1 week earlier and were getting worse. She had no other complaints, fever or adenopathies. She denied any history of trauma or surgical interventions. She had a history of diabetes mellitus type 2. Physical exam revealed a large, firm and tender mass in periumbilical area without overlying skin changes.
Clinical Hypothesis: The history and physical examination suggested a neoplastic disease.
Diagnostic Pathways: The patient's hemoglobin level was 14.5 g/dL and her white blood cell count was 10,400×109/l with 50% neutrophils, 35% lymphocytes and 6% were atypical. Serum electrolyte, blood urea nitrogen and creatinine were within normal limits. Computed tomography (CT) scan of the abdomen and pelvis showed a 88x42 mm periaortic mass and another 66x25 mm in the left renal hilum; mediastinal and abdominal lymphadenopathy. A CT-guided needle biopsy of the mass was performed and the histopathology results were compatible with a follicular lymphoma (FL). A bone marrow biopsy results also showed a follicular lymphoma. A final diagnosis of follicular lymphoma stage IV was made and she underwent six cycles of R-CHOP chemotherapy (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone). A subsequent CT scan showed complete response of the lymphoma to therapy.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: Presentation varies widely. It can include palpable adenopathy or abdominal masses. Treatment of FL is contingent on the stage of the disease. Chemotherapy is indicated in more advanced stages of FL, such as stage 4 disease that involves one or more extralymphatic site(s) diffusely.

1927 / #EV0937

A RARE CASE OF ACQUIRED A HAEMOPHILIA ASSOCIATED WITH BULLOUS PEMPHIGOID

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Case Description: A 77-year-old man was admitted to our ward for mild normocytic anemia (Hb 7.8 g/dL) with normal platelet count and isolate activated partial thromboplastin time (aPTT) ratio (1.4) prolongation in course of hemorrhagic diathesis (epistaxis, hematuria, melena and subcutaneous hematomas). Moreover, he presented multiple scab bleeding lesions in a recently diagnosed Bullous Pemphigoid (BP) in treatment with oral steroid.
Clinical Hypothesis: Deficiency anemia, anemia secondary to active bleeding or to oncologic/hematologic disorders, clotting disorders, platelet disfunction.
Diagnostic Pathways: To exclude deficiency anemia, iron parameters, folate and B12 vitamin levels were dosed and were in range of normality; to exclude active gastrointestinal bleeding or an occult neoplasia esophagogastroduodenoscopy, colonoscopy and total body CT scan with contrast were performed, without any abnormal finding. Clotting tests were repeated, confirming an aPTT ratio prolongation with normal prothrombin time (PT), so second level clotting tests were performed. Interestingly, a significant reduction in VIII factor levels along with anti VIII factor's antibodies were found, so the diagnosis of acquired A haemophilia (AHA) was made. The patient was started with methylprednisolone 1 mg/kg and procoagulant therapy with eptacog alfa, with progressive improvement of clinical conditions.
Discussion and Learning Points: AHA is a rare condition caused by production of anti VIII factor autoantibodies that could cause abnormal bleeding. Usually idiopathic, it could be rarely associated with other autoimmune diseases, such as BP, as in our patient. It's important to consider this condition in presence of unexplained haemorrhagic diathesis because of high risk of mortality. The adequate treatment consists of immunosuppressive drugs and bleeding control.

1857 / #EV0938

METHOTREXATE-INDUCED PANCYTOPENIA AND ORAL MUCOSITIS: A CASE REPORT

Andreia Fernandes, Adriana Dias, João Teixeira, José Magalhães, Mafalda Ferreira, Maria Rocha, Pedro Duarte Fragoso, Pedro Moura, Ricardo Roque, José Bernardes-Correia, José Pereira de Moura, Armando Carvalho

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Case Description: An 85-year-old woman was admitted to the emergency department with prostration and oral mucositis for the past five days. She had a medical history of rheumatoid arthritis, which was well controlled by methotrexate (15 mg/week) and prednisolone (7.5 mg/day). For unknown reasons, the patient stopped taking folic acid supplementation. On physical examination, she was febrile (38.2°C), blood pressure of 124/76 mmHg, heart rate of 73 bpm and oxygen saturation of 94% on room air. She had painful ulcers on oral mucosa and hemorrhagic crusts on the lips. Laboratory workup exhibited pancytopenia with neutropenia, vitamin B12 deficiency and increased reactive C-reactive protein (13.81 mg/dL).
Clinical Hypothesis: Pancytopenia and oral mucositis induced by methotrexate treatment without folic acid supplementation
Diagnostic Pathways: Methotrexate was immediately stopped and the patient was started on intravenous folinic acid, nystatin mouthwash and cyanocobalamin treatment. Given the neutropenic fever, she was empirically started on broad-spectrum antibiotics. She was also transfused with two units of packed red blood cells. On the seventh day after admission, filgrastim was initiated. The patient improved significantly and pancytopenia resolved by day five of therapy and filgrastim was stopped.
Discussion and Learning Points: The effective response to folinic acid and filgrastim therapy and withholding methotrexate corroborated the diagnosis of methotrexate-induced pancytopenia and ruled out the need for bone marrow biopsy. Pancytopenia is a rare but life-threatening side effect of methotrexate. In our patient, lack of concomitant administration of folic acid, advanced age, polypharmacy and infection may have facilitated the development of pancytopenia.

2004 / #EV0939

PROLONGED FEVER OF UNCERTAIN ORIGIN AND MACROCYTOSIS: A DIAGNOSTIC CHALLENGE

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Case Description: A 55-year-old female presented with a prolonged high fever, myalgia, and episodic diarrhoea. Her medical record was significant for an invasive mammary carcinoma in clinical an imagological remission, treated with surgery,

 DOI: 10.12890/2022_V9Sup1

lestrozol and palbociclib. The initial lab results were relevant for macrocytosis, elevated inflammation markers, high d-dimers, GGT and AP. A Thoracic CT scan revealed mediastinal adenopathies. She was admitted for inpatient care admitting a fever of unknown origin on an immunocompromised patient.
Clinical Hypothesis: An opportunistic infection was suspected, as well as an evolution of the oncologic process.
Diagnostic Pathways: An empiric course of antibiotics was initiated with no clinical response. A panel of viral serology was drawn, testing positive for CMV IgM. Admitting an acute CMV infection, viral count was performed, counting 886 copies per ml. A throughout search for targeted organ lesion was performed, and a small retinal erosive lesion on the left eye was found. Treatment with valganciclovir 900 mg every 12 hours. The symptoms and the retinal lesion responded to the antiviral treatment. The patient was discharged with Valganciclovir as an outpatient treatment.
Discussion and Learning Points: CMV infection is an opportunistic agent and can mimic a lot of pathogens, especially in immunocompromised patients, and may involve more than one system. This patient was on oral chemotherapy with causes immunosuppression and enables CMV to thrive. Palbociclib can also cause macrocytosis, misleading the correct diagnosis. The major catch in this case may be the balance of chemotherapy and antiviral therapy. The literature on this sort of cases is rather scarce.

2184 / #EV0940

MUCOCUTANEOUS AMYLOIDOSIS, A PRELUDE MANIFESTATION OF PLASMA CELL MYELOMA: A REPORT OF TWO CASES AND REVIEW OF LITERATURE

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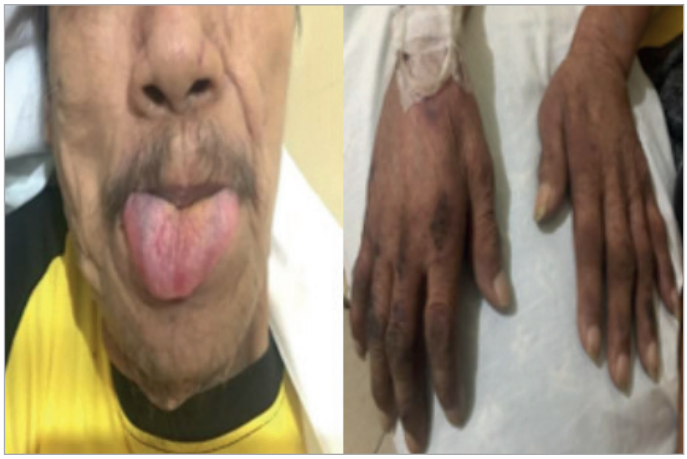
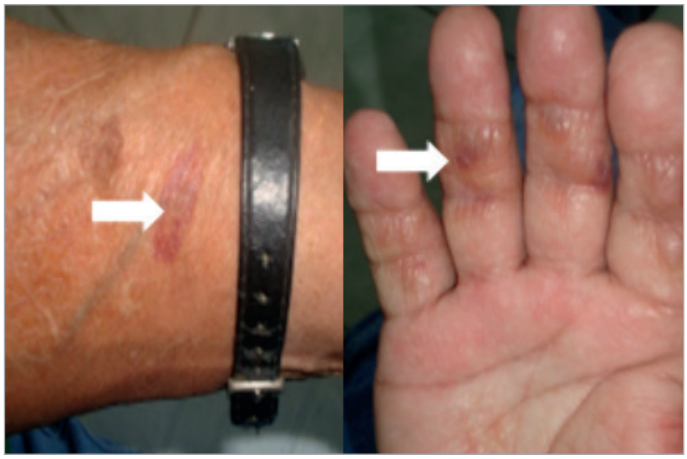
Case Description: A 68-year-old male was admitted with skin lesions varying from hyperpigmented patches and plaques to thickening and enlargement of hands, fingers, and tongue. Accompanied with cough, chestpain, and pallor. Imaging showed pleural-based masses with multiple rib and vertebral bone lytic lesions. Biopsies of bone marrow and skin pads supported a plasma cell malignancy. Electrophoresis defined the presence of a monoclonal gammopathy. Review of records showed a comparable case of a 62-year-old male who also presented with gradual thickening of palms, soles and fingers with dystrophic changes of the nails, accompanied with low backpain. Laboratory showed anemia, elevated calcium and creatinine. L4 vertebral compression fracture was detected. Biopsy showed apple-green birefringence, signifying amyloid deposits. Trepine biopsy revealed plasmacytosis. Electrophoresis demonstrated a monoclonal gammopathy.
Clinical Hypothesis: His study aims to present two cases of multiple myeloma with mucocutaneous amyloidosis as a prelude feature of plasma cell myeloma.
Diagnostic Pathways: Initial presentation: Mucocutaneous manifestation. Work up (laboratoy, imaging, biopsy).
Discussion and Learning Points: We presented two cases of plasma cell myeloma with early distinctive manifestations. Both patients presented with dermal changes consistent with amyloidosis. Both cases showed protean cutaneous lesions varying from hyperpigmented patches, plaques and papules to thickened, cornified, enlarged tissue changes. Skin disorders are rare in cases of Multiple myeloma. Multitude of differential diagnoses were considered and subsequently ruled-out. In such rare instances, most physicians are left with uncertainties and skin-deep diagnoses; thereby, a high degree of clinical suspicion coupled with thorough investigation is important in order to arrive at a definitive diagnosis and an appropriate therapeutic management.



#EV0940 Figure 1A: Mucutaneous Amyloidosis. Appearance of macroglossia and thickened and enlarged hands and fingers.



#EV0940 Figure 1B: Waxy salmon pink patches and papules on arm and fingers.

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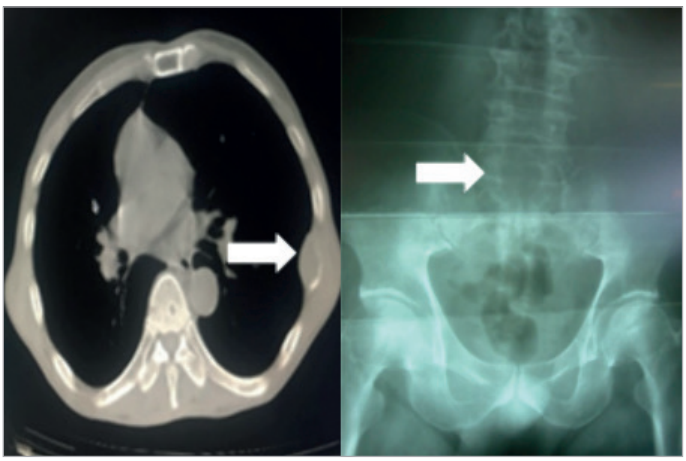
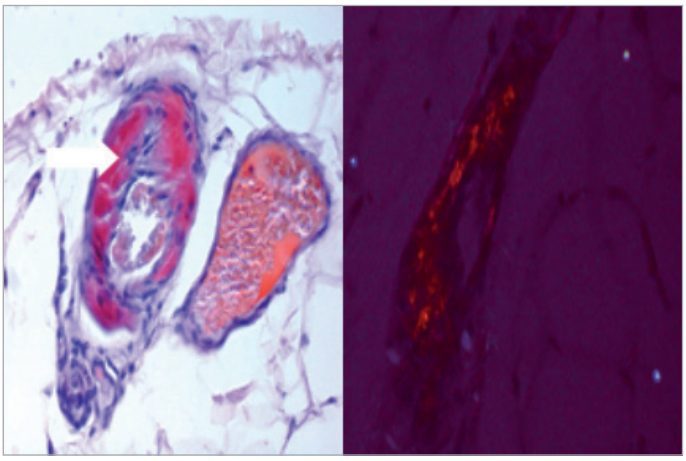


#EV0940 Figure 1C: CT scan showing uniloculated left pleural-based mass with multiple rib fractures. An L4 compression fracture seen skeletal survey.



#EV0940 Figure 1D: Deposits of characteristic salmon pink appearance on the affected arteriole (H&E stain) and apple green birefringence (Congo red stain) on polarized microscopy.

801 / #EV0941

ACQUIRED HAEMOPHILIA A PRESENTING POST SARS-COV-2 INFECTION IN A YOUNG POSTPARTUM PATIENT

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Case Description: A 20-year-old healthy woman admitted in July 2021, presenting with recurrent and painful spontaneous hematomas of the lower limbs (three in a three-month period), without hemodynamic compromise. Her medical history was remarkable for a caesarean in December 2020 and asymptomatic SARS-CoV-2 infection in January 2021.

Clinical Hypothesis: Acquired Haemophilia.

Diagnostic Pathways: Initial laboratory assessment showed a prolonged activated partial thromboplastin time (aPTT 100'', 41'' in January) and FVIII <0.5%, associated with high inhibitor values (25,94 BU); imaging and other autoimmune studies were normal and unspecific. In this setting, acquired haemophilia A (AHA) was formally diagnosed and treatment with anti-inhibitor coagulant complex (FEIBA) and methylprednisolone initiated with favourable response. At follow-up appointment, however, increased values of serum inhibitor (44,95 BU) raised compliance concerns and the patient was readmitted in September for another spontaneous hematoma. Rituximab therapy was proposed, currently waiting to be scheduled by Imunohemotherapy.

Discussion and Learning Points: AHA is a rare bleeding disorder caused by circulating autoantibodies directed against clotting factor VIII (FVIII), affecting people with no previous personal or family history of bleeding. It is commonly associated with lymphoproliferative malignancies, infections, postpartum, autoimmune disorders and drug hypersensitivity. Recently, case reports of this condition following Influenza and SARS-CoV-2 infection and immunization have been published. Although it is uncertain whether the partum or the SARS-CoV-2 infection triggered the FVIII autoantibodies in our patient, when AHA is diagnosed it is crucial to establish haemostasis with FEIBA infusion and immunosuppressants to prevent potential fatal outcomes. Immunoglobulins, rituximab or plasmapheresis may be considered in refractory cases.

2704 / #EV0942

RENAL SARCOMA - AN UNEXPECTED CAUSE OF WEIGHT LOSS IN AN ELDERLY PATIENT

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Case Description: Retroperitoneal sarcomas are tumours of mesenchymal origin that comprise less than 1% of all malignancies in the adult. The authors describe the case of an 87-year old woman with hypertension, diabetes and osteoporosis, who sought medical care for a 6-month history of clinical significant weight loss and anorexia.

Clinical Hypothesis: Upon physical examination, a large, hardened, nontender, immobile and irregular mass was found on the left upper abdomen.

Diagnostic Pathways: Initial workup identified a lactate level of 8.9 mmol/L, and no other relevant laboratory findings. A computerised tomography was performed, which documented a 17x10cm heterogeneous mass in the left kidney, with areas suggestive of necrosis, and concomitant compression of the left ureter with ureterohydronephrosis. There were no signs of metastatic disease. The patient was submitted to radical left nephrectomy, of which anatomopathological examination revealed undifferentiated/unclassifiable sarcoma of high grade with invasion of the renal capsule but no evidence of vascular infiltration. Five months following surgery, both performance status and symptoms improved with no evidence of disease recurrence.

DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: Retroperitoneal sarcomas are tumours that usually produce few symptoms and only present to medical attention when large enough to invade or compress other organs. This case highlights the importance of a thorough physical evaluation in the presence of symptoms suggestive of malignancy, in an era where rational prescription of diagnostic tests is warranted, so as to guarantee a timely diagnosis and definitive treatment.

673 / #EV0943

PANCOAST TUMOR PRESENTING WITH VOMITING: A CLINICAL CASE

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Case Description: Pancoast tumors (PT) are characterized for invading the thoracic inlet, frequently presenting with shoulder pain or thoracic outlet syndrome as a consequence of apical structures compression. Less often, PT can present due to distant metastasis or paraneoplastic syndromes. A 64-year-old male was admitted to the Emergency Room with nausea and vomiting. The patient was a smoker – 50 pack-years – with no additional medical history. Physical examination revealed clubbing with no additional remarkable findings. Blood tests revealed mild neutrophilia and hypercalcemia of 12.8mg/dL with ionized calcium of 1.51mEq/L.
Clinical Hypothesis: Given the patient's age and smoking history, humoral hypercalcemia of malignancy (HHM) diagnosis was considered.
Diagnostic Pathways: A chest radiograph showed a large mass on the upper right lobe and thoracic CT scan revealed an 88x67mm apical tumor. Staging cranioencephalic CT revealed a left cerebellar mass molding the fourth ventricle. A medial occipital craniotomy was performed, and the histology was compatible with adenocarcinoma of the lung. PET-CT did not reveal additional distant metastasis. Genomic sequencing and PDL-1 were both negative. Given the unresectable PT and poor Performance Status of the patient, he received external beam radiotherapy (EBRT).
Discussion and Learning Points: We report an atypical presentation of a PT. Vomiting could be attributed to either brain metastasis or HHM, best described in non-small cell lung cancer and associated with later-stage malignancies. EBRT is successful in controlling tumor related symptoms and preventing Pancoast syndrome.

778 / #EV0944

FROM LAB ARTIFACTS TO AN UNEXPECTED DIAGNOSIS

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Case Description: We report the case of a 79-year-old woman with sudden left parotid swelling and left cervical lymphadenopathies. For the past two years, this patient had multiple visits to her primary-care doctor with non-specific complaints: xerostomy, asthenia, muscle weakness (predominantly in the lower limbs) and generalized bone pain. Left parotid gland ultrasound didn't reveal calculi or duct ectasia. On blood analysis, an elevated erythrocyte sedimentation rate (ESR) of 93 mm/1h was evident. The patient refered improvement of parotid tumefaction and lower limbs pain after two weeks of metilprednisolone. Relapse occured after steroids suspension. On the following months, global health status deteriorated, with 15% of body weight lost and development of right fronto-parietal Herpes-Zoster. The left parotid enlargement persisted. She was admited to our hospital for complementary investigation. At admission she presented with acute kidney injury, calcium level corrected for albumin was 13.2mg/dL, ESR 129 mm/1h, HDL-cholesterol <5mg/dL and HIV-antibody was positive.
Clinical Hypothesis: Our main clinical hypothesis were Diffuse infiltrative lymphocitosis syndrome associated with HIV infection, Multiple Myeloma and Sjögren syndrome.
Diagnostic Pathways: Western-Blot confirmatory test and viral load of HIV-1 and 2 were negative. The auto-immune study was negative, except for Rheumatoid Factor (106 UI/mL). Serum protein electrophoresis showed a monoclonal spike (3g/dL), and immunoglobulin tests 4.2 g/dL of IgM. Cranial-cervical-thoraco-abdomino-pelvic contrast-enhanced computed tomography didn't show lytic lesions. Hypercalcemia was due to paraneoplasic hypervitaminosis D.
Discussion and Learning Points: The diagnosis of Waldenström macroglobulinemia was made. Paraproteinemias are a common cause of laboratory artifacts, including low value of HDL-cholesterol or HIV serology false positive results.

 DOI: 10.12890/2022_V9Sup1

813 / #EV0945

MEDIASTINAL MIXED TERATOMA: A STRIKING PRESENTATION

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Case Description: Mediastinal teratomas vary from mature benign masses to mixed or immature malignant tumors – nonseminomatous germ cell tumors (GCT). A 31-year-old male with no medical history presented to our Emergency Room hypotensive, tachycardiac and diaphoretic. The physical exam was otherwise unremarkable. The transthoracic echocardiogram showed right atrial collapse and pericardial effusion. The thoracic CT scan revealed an "17x11x8.5 cm anterior mediastinal mass molding both superior vena cava and innominate vein" and also a "large right-sided pleural effusion". Blood tests revealed anemia of 7.2 g/dL and thrombocytopenia 49x109 cells/L.

Clinical Hypothesis: Obstructive shock related to a mediastinal mass. Thymoma and lymphoma were considered.

Diagnostic Pathways: Elevated alfa-fetoprotein of 15,154ng/mL, mild LDH and normal beta-hCG were found, while testicular ultrasound showed small testis without masses. Thoracic CT angiography showed mediastinal left shift and right pleural effusion conditioning significant right lung atelectasis – the absence of a cleavage plane between the tumor and right atrium contraindicated tumor resection. The biopsy revealed a mature teratoma with focal immaturity complicated by a hemopneumothorax and cardiac tamponade, both successfully managed. The patient was treated with cisplatin-based chemotherapy. Unfortunately, he would ulteriorly die from septic shock due to *Klebsiella pneumoniae*.

Discussion and Learning Points: Although histology suggested a predominantly mature teratoma, both elevated alfa-fetoprotein and outcome suggested a more aggressive neoplasm. The patient's late diagnosis due to the COVID-19 pandemic may have also impacted the outcome. Nonseminomatous GCT are associated with synchronous hematologic malignancies, which could further explain our patient's outcome, and karyotypic abnormalities, particularly Klinefelter syndrome. Sex chromosomal karyotyping was requested and is pending.

1427 / #EV0946

THE IMPORTANCE OF RAPID DIAGNOSIS

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Case Description: This is the case of a 21-year-old woman with a history of asthma, neonatal esophageal atresia, right renal atrophy with recurrent pyelonephritis and pancytopenia documented since January 2019, with a study revealing iron deficiency anemia with anisocytosis, some schistocytes and stomatocytes, platelet anisocytosis and haptoglobin at normal levels, with no other alterations. She went to the emergency room in February 2021 due to easy tiredness, afternoon headaches, easy ecchymosis and edema in the lower limbs with two days of evolution, and irregular menstruation. Analysis confirmed pancytopenia, with hemoglobin 8.2 g/dl, leukocytes 2.06 and platelets 28,000. The patient left against medical opinion without allowing any treatment or in-depth study. In March 2021, she returns with maintenance of symptoms and worsening analytical results, with macrocytic and hyperchromic anemia (Hb 3.8 g/dl), leukocytopenia (1,120) and thrombocytopenia (27,000).

Clinical Hypothesis: The blood smear confirmed pancytopenia without morphological changes in the white series, negative viral markers and no acute changes on imaging. After transfusion of 2U red blood cells and for suspected acute leukemia, she was transferred to a specialized hospital.

Diagnostic Pathways: During hospitalization, myelogram and bone marrow biopsy showed medullary aplasia, with positive cytogenetic study for Fanconi anemia. She was discharged with a proposal for bone marrow allotransplantation in the future.

Discussion and Learning Points: In this case, the need for in-depth investigation and timely diagnosis of hematological alterations should be highlighted, as they can be diseases with early mortality if not treated, with the possibility of cure with the right treatment, here with hematopoietic stem cell transplantation.

2121 / #EV0947

HEPATIC HYDROTHORAX ASSOCIATED WITH PORTAL VEIN THROMBOSIS - A CASE REPORT

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Case Description: A 64 year-old woman with cholangiocarcinoma was submitted to portal vein stenting due to severe portal hypertension, secondary to portal vein invasion and stenosis. 10 days after the procedure, the patient presented with progressive dyspnea. A right-sided pleural effusion was diagnosed through clinical and radiological examination. Thoracocentesis was

 DOI: 10.12890/2022_V9Sup1

performed, with drainage of 2.5 liters of fluid. Biochemical studies were compatible with transudative effusion. There was no history or physical exam findings supportive of heart failure or pulmonary embolism.

Clinical Hypothesis: Given the history of portal hypertension, hepatic hydrothorax was suspected. Being the inaugural episode and considering the temporal relationship with the procedure, portal vein stent thrombosis was considered.

Diagnostic Pathways: Abdominal computed tomography with contrast showed acute portal vein occlusion due to stent thrombosis. There was only mild-to-moderate ascites. The patient was started on oral anticoagulation and diuretic therapy. The pleural effusion resolved without recurrence.

Discussion and Learning Points: Hepatic hydrothorax (HH) is a well described complication of non-cirrhotic portal hypertension. The most acceptable explanation is direct passage of ascitic fluid into the pleural cavity through a defect in the diafragm. Our case highlights the importance of recognizing HH in patients with portal hypertension and considering causal relation between recent procedures and clinical detereoration.

1027 / #EV0948

RECURRENT STROKE IN A PATIENT WITH BREAST CANCER

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Case Description: A 41-year-old female presented to the Emergency Department (ED) with an holocranial headache and dysarthria with spontaneous recovery after 3 hours. In the week before she had a 30-minute self-limited episode of headache with visual changes and right hand numbness. She has a metastatic breast cancer in progression (bones and liver) and changed chemotherapy regimen in the 2 previous months. The cranioencephalic (CE)-CT, -angiography and -MRI showed numerous infarctions of varying size in several territories. She was hospitalized with suspicion of ischaemic stroke. From the complementary study carried out, lipid panel, carotid and transcranial Doppler, transthoracic and transesophageal echocardiogram were normal. The Angio-MRI confirmed the previous image findings. She was discharged home with oral anticoagulation. Eleven days after, she was admitted in the ED with dysarthria, left hand numbness and bifrontal headache ending after 1 hour.

Clinical Hypothesis: Cancer-Related Stroke (CrS).

Diagnostic Pathways: CE-CT, -angiography and -MRI showed new areas of infarct in cortical and subcortical frontal, parietal and occipital lobes. Lumbar puncture was normal and negative for microbiology, mycology and neoplastic cells. VDRL test was negative. D-dimer was augmented (645,0 µg/L) and fibrinogen level was normal. Pancytopenia was present. Cancer markers were increased.

Discussion and Learning Points: Cancer is an independent risk factor for ischaemic stroke. It seems to accelerate conventional stroke mechanisms, as well as enhance thrombin generation causing stroke coagulopathy-related. CrS is often aggressive, with a tendency to provoke recurrent events and rapid neurological deterioration. Low-molecular-weight heparin has been shown to be safe and may be beneficial in reducing mortality and long-term morbidity.

1039 / #EV0949

CARBOPLATIN-INDUCED TUBULOPATHY

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Case Description: Due to a lower accumulative property in renal tubules, carboplatin has a lower nephrotoxicity in comparison with the standard cisplatin. Herein, we describe a case of a 60-year-old male with three metachronous tumours. One of this neoplasia diagnosis was an epithelioid malignant peritoneal mesothelioma. After cytoreductive surgery of this tumour, we started treatment with Carboplatin plus Pemetrexed. The patient presented with perioral numbness and acral paresthesias due to grade 3 hypocalcemia and hypomagnesemia with onset 20 days after the first cycle.

Clinical Hypothesis: Carboplatin-induced tubulopathy was considered as well as primary renal disease and gastrointestinal causes

Diagnostic Pathways: We stopped chemotherapy and started work-up. Blood tests revealed a normal renal function, serum magnesium <0.6mg/dL and an ionized calcium 0.74 mmol/L. Electrocardiography did not show repolarization changes. Abdominal and pelvic computed tomography described stable disease. We started magnesium and calcium supplementation with gradual improvement.

Discussion and Learning Points: Carboplatin has largely replaced cisplatin in peritoneal cancer due to reduced toxicity, particularly nephrotoxicity and hypomagnesemia. However, hypomagnesemia and other electrolyte disorders, e.g. hypocalcemia, are still common among these patients (incidence of 29-43%, 22-31%, respectively). The underlying mechanism is still unknown, but it seems to be due to platinum-mediated damage to tubular membranes. Because of life-threatening electrolyte imbalance, there must be a high level of suspicion and a prompt intervention in the course of cancer treatment.

 DOI: 10.12890/2022_V9Sup1

2579 / #EV0950

OLD EWING

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Case Description: A 77-years old woman with no relevant medical antecedents that consults on emergency service referring focal sensitive deficits being compatible with cauda equina syndrome. A computed tomography of the pelvis show a lytic lesion located at right sacral wing with an associated mass that invades sacral foramen. Dexametasona is started and the patient is hospitalized for study.
Clinical Hypothesis: A disseminated neoplastic pathology is considered.
Diagnostic Pathways: Blood analysis does not reveal alterations and biomarkers are negative. A magnetic resonance shows a great extension of the lytic lesions, being present also in several vertebral bodies from the dorsal to the lumbosacral region. A computed tomography reveals a small node on right kidney approximately around 3 centimetres of diameter, with no other pathological findings. It is observed neither serum nor urine paraprotein. Proteinogram does not show alterations. Considering low probability of renal node as the primary tumour due to its dimensions, a sacral biopsy is made with no pathological results. A new biopsy oriented to the sacral mass is compatible with Ewing sarcoma. Finally, the patient receives systemic treatment with mild improvement of sensitive alterations in lower limbs and is put on discharge after stabilization.
Discussion and Learning Points: Ewing sarcoma is a rare malignant neoplasm that usually occurs on paediatric population, even stranger in patients above 40 years old. An early diagnosis is necessary for an adequate management.

2588 / #EV0951

DANGEROUSNESS OF HYPERCOAGULABILITY

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Case Description: A 61-years-old woman affected by a disseminated intrahepatic cholangiocarcinoma in second lie of treatment with pemigatinib. Refers fever and left thoracic pain that increases with respiratory movements. X-ray chest shows mild left pleural effusion. Inflammatory parameter are elevated and urinalysis does not reveal pathological findings. Blood and urine cultures are extracted, empiric piperacillin-tazobactam is initiated and the patient is hospitalized.
Clinical Hypothesis: A respiratory infection is considered.
Diagnostic Pathways: Pleural effusion worsens and multifocal opacities appear in both lungs. Fever does not remit. Inflammatory parameters increase. The patient has a rapid volume overload and presents a non-oliguric renal failure associated to hyperphosphatemia and signs of tumor lysis thus a single-dose of 6mg of rasburicase is administered. Pemigatinib dose is maintained and a low phosphate intake diet is started. A thoracic computed tomography shows a segmental pulmonary thromboembolism and important neoplastic progression with multiple pulmonary nodes. Anticoagulation with enoxaparin is started. A transthoracic echocardiogram shows normal left ventricle function but also a mobile mass on aortic valve that is confirmed with transesophageal echocardiogram. No microbiologic isolation is made and fever remits. No microbiological isolations were made. After clinical and analytical stabilization, the patient is put on discharge.
Discussion and Learning Points: Neoplastic progression and active treatment with tyrosine kinase inhibitors can provoke a hypercoagulability state that consequently drives to thrombotic complications. Pulmonary embolism and marantic endocarditis often occurs on patients with a hypercoagulability state thus these complications must be known for all sanitary professionals that work with patients with cancer or under treatment with tyrosine kinase inhibitors.

1610 / #EV0952

CUTANEOUS VASCULITIS AS THE FIRST SIGN OF OCCULT BREAST CANCER

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Case Description: A 56-year-old female, with depression and dyslipidemia, was admitted in the emergency room with a two-day history of myalgias, unspecific arthralgias and high fever, in addition to, a five-day maculopapular pruritic rash on the trunk and the limbs. Five months earlier, she presented similar skin lesions, which although showed improvement, did not fully respond to corticoid therapy. Except for normocyte normochromic anemia and elevated CRP, the analytical study was normal.
Clinical Hypothesis: In this patient, infectious, autoimmune, oncologic and hematologic diseases were plausible and had to be excluded given her history of several months of skin rash progression, posteriorly associated with fever and arthralgias.
Diagnostic Pathways: The patient was admitted for etiological study. Biochemistry parameters, viral serology, autoimmune and tumor markers, were unaltered. Blood cultures were negative. Thoracoabdominal CT identified unilateral axillary lymphadenopathy. Mammography, breast ultrasound and MRI, did not identify any solid nodular lesions. Endoscopic studies and PET-CT, excluded other primary tumor sites. Skin and axillar lymphadenopathy biopsy showed leukocitoclastic vasculitis and

 DOI: 10.12890/2022_V9Sup1

breast cancer metastases, respectively. Prednisolone 1mg/kg/day was prescribed and the patient was referred to the oncology group consultation.

Discussion and Learning Points: Despite being an uncommon manifestation, cutaneous vasculitis can be the initial presentation of an oncologic disease. Furthermore, in cases of persistent vasculitis that doesn't respond well to treatment, paraneoplastic syndrome must always be ruled out, even when there is no clear evidence of a tumor. This case shows a paraneoplastic cutaneous vasculitis related to occult breast cancer, emphasizing the importance of a full clinical assessment, to allow early diagnosis.

731 / #EV0953

POSSIBLE NEW SCREENING MAMMOGRAPHY QUALITY METRICS: RECALL LATERALITY AND BILATERALITY

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Background and Aims: Current screening mammography quality metrics are important and helpful, but do not address all concerns. Never previously considered were a) whether the reader exhibits laterality bias, as evidenced by left versus right difference in immediate recalls advised, and b) among reports recommending immediate recall, what an appropriate range of bilateral versus unilateral recalls should be.

Methods: As a trainee quality project, five staff radiologists' screening mammography BI-RADS category 0 reports over two years at an academically affiliated, public hospital were tallied regarding laterality of recommended recall, and with respect to unilateral versus bilateral recalls advised. The chi-square (χ^2) statistic was applied to reports advising unilateral recall.

Results: Although no group laterality bias was discovered, one radiologist (the most experienced) evidenced a consistent bias over two years (p=0.07) against left-breast findings. Of reports recommending recall, the radiologists' single-year range of those that were for both breasts was 10.2% to 23.3%; for the two years combined, the individual radiologists ranged from 13.6 to 17.9%. The group, two-year mean recommending bilateral recall was 16.5%.

Conclusions: A mammography radiologist may exhibit laterality bias, favoring detection of findings in one breast over the other, a concern never before considered in radiology literature. Audit to discern such bias leads simultaneously to assessment of bilateral recall, as well. Possible causes of such biases are discussed. Research into two possible quality metrics is encouraged, one with respect to laterality of screening recall, and the other regarding the portion of screening recall that is for both breasts.

1291 / #EV0954

AN UNCOMMON CAUSE FOR HEMOLYTIC ANEMIA

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Case Description: Patient is a 69-year old man with: left humerus fracture, right eye traumatic amaurosis, chronic bronchitis, former smoker with drinking habits and a non-restricted diet. He recently took an undescripted antibiotic and denied other medications. He went to the Emergency Services because of asthenia, fatigue, and lower limb edema. The patient was apyretic, hipotensive, tachycardic, with jaundice skin and sclerotics, lung auscultation with bibasilar crackling rales and swollen lower limbs. Laboratorial results revealed anemia (hemoglobine 3g/dL), high LDH and indirect hyperbilirubinemia.

Clinical Hypothesis: Hemolytic anemia; pernicious anemia; hypovolemic anemia.

Diagnostic Pathways: He was hospitalized for further study. It was a normocytic normochromic anemia, with low reticulocytes. The peripheral blood swab showed anisocytosis and neutrophil hypersegmentation. The direct Coombs test was negative. The serological autoimmune and hepatrophic virus were negative. Even so, very low levels of vitamin B12 and folic acid were registered. The abdominal ultrasonography showed no relevant alterations.

Discussion and Learning Points: Hemolytic anemia is an unusual situation and most situations have an autoimmune cause, corpuscular and/or iatrogenic. Here we describe a not so easy diagnosis of hemolytic anemia. Hemolytic anemia was considered due to the vitamine B12 and folic acid deficit, not discarding the iatrogenic etiology associated with antibiotic usage. Cyanocobalamin and folic acid supplements were started with gradual improvement of hemoglobin values. The patient is attending Internal Medicine appointments without anemia. Pernicious anemia hypothesis was excluded. Usually, folic acid or/and vitamin B12 are associated with microcytosis due to production deficit, but we must consider some unusual presentations, like the one we describe here.

 DOI: 10.12890/2022_V9Sup1

2508 / #EV0955

UNDERNEATH ISCHEMIC COLITIS HIDES THE REAL DIAGNOSIS

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Case Description: A 64-year-old woman, with previous history of smoldering multiple myeloma (SMM), chronic kidney disease, arterial hypertension and rheumatoid arthritis, presented with acute abdominal pain and rectal bleeding. Physical assessment showed mild abdominal distention without signs of peritoneal inflammation and bimalleolar oedema. In the blood tests anaemia and renal function deterioration was identified.
Clinical Hypothesis: The patient was admitted to hospital with suspicion of ischemic colitis. Complementary tests showed normal thrombophilia screening, autoimmunity and angio-CT scan. Cardiac ultrasound was performed, showing left ventricular hypertrophy. Additionally, she referred carpal tunnel syndrome, leading to suspicion of an infiltrative disease.
Diagnostic Pathways: Serum proteinogram showed elevated kappa light chains and cardiac MRI confirmed amyloidosis deposit. Next, gastro-colonoscopy with stomach and bowel biopsy was performed with positive Congo red staining for amyloid. Histopathology of intestinal, bone marrow and subcutaneous fat were all consistent with systemic Immunoglobulin light chain (AL) amyloidosis. The patient underwent chemotherapy (daratumumab + bortezomib + cyclophosphamide + dexamethasone), and is in remission to date.
Discussion and Learning Points: Amyloidosis is characterized by extracellular deposit of an insoluble fibrillar protein. Gastrointestinal affection is present in nearly 60 percent of secondary (AA) amyloidosis patients, while it is much less common in AL amyloidosis. Deposits are found within the mucosal layer and in and around the walls of submucosal blood vessels, leading to ischemia or infarct. It is important to keep amyloidosis in mind, because although not frequent, it can be cause of ischemic colitis.

737 / #EV0956

THE RISK-BENEFIT OF HYPOCOAGULATION: CLINICAL CASE

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Case Description: A 58-year-old woman, with hypertension, dyslipidemia, morbid obesity and lacunar infarction 3 years ago. She went to emergency department with pain in the left gastrocnemius, limiting gait, dry cough, right chest pain and fever, with a week of duration. On the admission, she was polypneic, with SatO2: 90%, tachycardia (105 beats per minute), blood pressure of 105/63 mmHg. Pulmonary auscultation with bibasal creptations.
Clinical Hypothesis: Venous thromboembolism is the third most common cardiovascular syndrome, and includes deep vein thrombosis and pulmonary thromboembolism (PE). Hypocoagulation is the basis of therapy and prophylaxis. The therapeutic challenge occurs when we are facing with a patient with limited hypocoagulation. A particular group are individuals who need to undergo an invasive procedure. In this situation, placement with temporary filters in the inferior vena cava will be beneficial.
Diagnostic Pathways: Arterial blood gas with hypocapnia and hypoxia (pCO2: 33 mmHg and pO2: 66 mmHg), high-sensitivity troponin of 236 ng/L, BNP of 72.5 pg/ml, leukocytes of 17030/uL and C-reactive protein of 332.7 mg/L. Chest angio-tomography showed bilateral PE. Intermediate-high risk PE was assumed and 90 mg of enoxaparin was started. A mass in the hepatic hilum was identified, and a biopsy was performed after the suspension of enoxaparin 12 hours before. The patient died in the next day. The autopsy revealed a massive PE and a poorly differentiated adenocarcinoma of pancreas, stage IV.
Discussion and Learning Points: Through this case, the authors intend to highlight how difficult is to manage hypocoagulation in a priority periprocedure and a recent episode of PE.

2293 / #EV0957

AZATHIOPRINE A DOUBLE-EDGED SWORD

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Case Description: A 19-year-old man sought the ER due to headaches and dizziness. Fever, asthenia or hematic losses were denied. He was taking azathioprine (AZA) 100 mg/day for 3 months due to Crohn's Disease (CD). On examination: skin pallor, normal vital signs and no organo/lymphadenopathy. Lab exams: pancytopenia [Hb 3.4g/dL, MCV 80.9fl, reticulocytes 0.01

DOI: 10.12890/2022_V9Sup1

10^6/uL, WBC 1000uL, neutrophils 400uL, lymphocytes 710uL, platelets 84,000uL]. Peripheral blood smear with no morphological changes. Erythropoietin 2519 mUI/ml, LDH 250U/L, ferritin 727.2ng/ml, folic acid 9ng/ml, negative direct Coombs and normal haptoglobin. Virologic, namely ParvovirusB19, and autoimmune studies were negative. Thyroid and liver function, including serum transaminases, were normal. CTscan [thorax-abdomen-pelvis] without alterations.
Clinical Hypothesis: Acquired bone marrow aplasia due to AZA was suspected, therefore suspended.
Diagnostic Pathways: Flow cytometric analysis of CD59 expression excluded paroxysmal nocturnal hemoglobinuria. Bone biopsy showed hypocellular bone marrow. Prednisolone 1mg/Kg/day was initiated with pancytopenia recovery in 18 days. He was discharge with Hb 9g/dl and 6 months later he was no longer on corticosteroids with Hb 16.3 g/dl.
Discussion and Learning Points: The immunosuppressant AZA, purine antagonist, is frequently used in CD. Its metabolites seem to be the major contributors of its suppressive/toxic effects. This is a case of drug-induced aplastic anemia, and the height of suspicion is important, as the continuation of AZA would prolong aplasia and increase morbimortality. The major elevation of erythropoietin allows us to infer the slow installation of the pathological process. The etiological study should exclude serious illness, due to the possibility of requiring highly targeted therapies, such as bone marrow transplant.

2315 / #EV0958

WHEN A LAMB BECOMES A WOLF

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Case Description: This case concerns a 22-year-old female with a painful 1cm cervical lump in which an aspiration biopsy was performed 9 months ago. The histological result of the biopsy indicated inflammation, so the patient was discharged without further follow-up. For the past 5 months she noticed an increase in size of the initial lump and describes new painful lumps, but did not seek medical advise until now due to B symptoms in the past 2 months. On examination she is hemodynamically stable with fever of 38.5ºC and a large mobile cervical adenopathy in the left supraclavicular area is palpable and painful to touch.
Clinical Hypothesis: Patient was admitted with suspected lymphoma.
Diagnostic Pathways: Laboratorial: Hb 10.7g/dl; VGM 75.9 fl; Leukocytes 10.990 uL (neutrophils 8590 uL; lymphocytes 750 uL); Platelets 496 000 uL; sedimentation velocity 99 mmh; LDH 345 UL. A cervical and thoracic CT scan was performed, showing bilateral cervical adenopathies with extrinsic compression of the tracheobronchial tree and left mediastinal shift, with concomitant presence of a mediastinal mass. Removal of the lymph node for histologic evaluation was scheduled. The presence of Nodular Sclerosis Hodgkin Lymphoma subtype was confirmed. She was then transferred to the care of the Hematology team.
Discussion and Learning Points: An isolated, painful to touch, peripheral adenopathy accompanied by an innocent anamnesis is usually considered benign. However, monitorization is advised. This case helps us understand that not all painful adenopathies are categorically of inflammatory etiology, it is important to maintain monitorization, especially when the etiology is unclear.

1576 / #EV0959

IMMUNE THROMBOCYTOPENIA SECONDARY TO CYTOMEGALOVIRUS INFECTION ON AN IMMUNOCOMPETENT ADULT

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Case Description: A previously healthy 40-year-old woman presented with ecchymosis and a nonblanchable nonpruritic petechial rash scattered over the trunk and limbs, as well as petechiae on her oral mucosa and active gingival hemorrhage, initiated in the past 2 days, as well as asthenia, anorexia and night sweats on the previous week. Laboratory workup exhibited a severe thrombocytopenia (Platelets: 16/µL), hepatic cytolysis and slightly increased inflammatory parameters, with reactive lymphocytes on blood smear. The abdominal ultrasound revealed mild splenomegaly.
Clinical Hypothesis:
mmune thrombocytopenia is the second most common cause of acquired thrombocytopenia. In adults, it usually occurs secondary to other systemic or infectious diseases - more frequently human immunodeficiency virus (HIV), hepatitis C virus (HCV) and *Helicobacter pylori*, but there have also been reports of association with Epstein-Barr virus (EBV) or Cytomegalovirus (CMV).
Diagnostic Pathways: Some of the laboratory findings previously described and the presence of an enlarged spleen were atypical manifestations for primary immune thrombocytopenia, leading to a thorough search for an etiology. An autoimmunity and infection workup (unremarkable immunologic panel, negative serologies for HIV, HCV, HBV, EBV) found positive serologies and viral load for CMV, and ultimately guided us to the diagnosis. Initially under high-dose-corticoids and, afterwards, intravenous immunoglobulins, there was remarkable improvement of platelet count.
Discussion and Learning Points: Studies have shown benefit in co-treating CMV infection in refractory immune thrombocytopenia, and, while that was not the case with this patient, it is still important to raise awareness for looking out for signs of viral infection in

 DOI: 10.12890/2022_V9Sup1

thrombocytopenic patients, and include CMV infection on their diagnostic investigation.

1279 / #EV0960

HYDROXYUREA TREATMENT: AN ATYPICAL CAUSE OF ULCERS

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Case Description: Chronic treatment with hydroxyurea (HU) can have serious adverse effects, such as oral and lower limb ulcers, which are usually very painful. Differential diagnosis between leg ulcers caused by myeloproliferative disease, vascular disease or HU-induced (incidence of around 10%) can be difficult. Prolonged treatment of at least 1g/day and resolution after discontinuation of HU favors the hypothesis of iatrogenic etiology. However, ulcers can appear regardless of the dose and duration of administration. We present the case of an 84-year-old male patient with chronic myelomonocytic leukemia, treated for 3 years with HU, at a dose of 1-1.5 g/day. He was admitted in the hospital for a 3-week condition of left malleolar ulcer with purulent exudate, associated with fever, local pain and leg asymmetric edema. Clinical examination also revealed ulcers in the labial and oral mucosa. He had leukocytosis and a C-reactive protein of 22.8 mg/dL.

Clinical Hypothesis: He was diagnosed with an infected leg ulcer, first medicated with amoxicillin/clavulanic acid and later escalated to piperacillin/tazobactam. The oral lesions were medicated with topical treatment: fusidic acid, sucralfate, nystatin and lidocaine.

Diagnostic Pathways: Due to suspicion of candidiasis, fluconazole was added, without clinical improvement. Admitting HU-induced ulcer, this drug was discontinued, with progressive healing of the lesions. After resolution of the infection, he started therapy with 5-azacitidine.

Discussion and Learning Points: This case illustrates the importance of including drug iatrogenesis in the etiological investigation of ulcers. These can appear after years of treatment, which can lead to a delay in diagnosis and, consequently, in the adequate treatment.

727 / #EV0961

HEMOGLOBIN 4.8G/DL... THE CHALLENGE OF AUTOIMMUNE HEMOLYTIC ANEMIA

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Case Description: Autoimmune cytopenias are a complication of lymphoproliferative diseases, especially chronic lymphocytic leukemia (CLL). Autoimmune hemolytic anemia (AHAI) is the most frequent, being associated with more advanced stages and worse prognosis.

Clinical Hypothesis: We present the case of a 53-year-old man with hypothyroidism, obesity and LLC since 2018, without follow-up/therapy. He was referred to the emergency department for fatigue, jaundice and choluria, with 6 months of evolution. Had pale, icteric skin and mucous membranes, an audible systolic murmur II/VI in the pulmonary focus and hepatosplenomegaly.

Diagnostic Pathways: Analysis revealed: anemia of 4.8 g/dl, hyperchromic macrocytic, leukocytosis with lymphocytosis, thrombocytopenia, increased LDH, indirect hyperbilirubinemia, decreased haptoglobin and reticulocytosis; normal folic acid, decreased vitamin B12; peripheral blood smear with erythrocyte agglutinates, polychromatophilia and anisocytosis, lymphocytosis with predominance of small to medium mature lymphocytes; direct and indirect Coombs test positive. Abdominal ultrasound showed slight hepatomegaly and homogeneous splenomegaly. Was hospitalized for AHAI secondary to LLC. Due to the high risk of hemolysis of the existing erythrocyte concentrate units (ECU), 1ECU compatible with self-adsorbed serum was requested from the Portuguese Blood Institute.The patient received half of the ECU and the remaining was kept for a life-saving situation. Corticotherapy was started with a gradual increase in the hemoglobin value. Was discharged on the 7th day with Hb 6.6g/dl and hemodynamically stable.Continued corticotherapy and was referred to Hematology.

Discussion and Learning Points: AHA proved to be a challenging pathology.The possible hemodynamic instability caused by a severe anemia as well as the impossibility to proceed to its ”usual” treatment,through the immediate administration of ECUs, make this clinical situation reinforce the importance of careful clinical evaluation and multidisciplinary discussion.

1124 / #EV0962

RECURRENT FEVER AND SPINAL PAIN AFTER ORTHOPEDIC SURGERY, IN THE END IT WAS HODGKIN’S LYMPHOMA

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Case Description: 56-year-old man, admitted for fever, night sweating and abdominal pain with two months of evolution. He had a back injury one year ago, with placement of fixation material in the dorsal spine. Two months ago, surgery to remove bone fixation material. At examination, he presented abdominal pain and he had dorsal pain on palpation. Admitted spondylodiscitis and he completed 8 weeks of flucloxacillin with clinical improvement. After 2 weeks, he developed fever, night sweating and general malaise. He was admitted to the hospital for further study. The final diagnosis was Hodgkin’s lymphoma.

Clinical Hypothesis: Spondylodiscitis, bone tuberculosis, lymphoma.

Diagnostic Pathways: Laboratory tests: anemia, leukopenia and CRP 18 mg/dL. Abdominal ultrasound: hepatic and splenic nodular formations. CT: nodular lesions of the liver and spleen;

 DOI: 10.12890/2022_V9Sup1

lesions in the dorsal spine MRI: screw path between D5-D9 and lesions suggestive of neoplastic infiltration/infectious process. IGRA positive Blood cultures: negative Cultures of bone marrow: *Staphylococcus caprae*. Bone marrow and liver nodule biopsy: negative for neoplastic cells. Second cultures of blood, bone and bone marrow: negative. Bone biopsy: negative for neoplastic cells PET: FDG uptake suggesting lymphomatous disease. Axillary lymph node biopsy: Hodgkin's lymphoma.
Discussion and Learning Points: *S. caprae* has been reported as a pathogen causing osteomyelitis, which made us think about spondylodiscitis. In this patient the recurrence of fever, night sweats and general malaise after treatment, led to the study of infectious and neoplastic etiology being repeated. PET suggested lymphomatous disease. Lymph node biopsy confirmed Hodgkin's lymphoma. It was an interesting case that mimics several diverse entities and had a long diagnosis pathway.

2048 / #EV0963

LONG-TERM ANTICOAGULATION IN CANCER-ASSOCIATED THROMBOSIS, NEW HORIZONS

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Background and Aims: Cancer-associated venous thrombosis (CAT) is an important cause of mortality and morbidity in patients with neoplasms. We aimed to describe the characteristics of our cohort, their thromboembolic events (TE) and their specific antithrombotic treatment.
Methods: A retrospective cohort descriptive study of all patients with CAT followed in our thromboembolic disease unit from January 2020 to November 2021.
Results: One hundred and nine patients with CAT were identified (55% males, median age 70.5 years), with a mean survival from cancer diagnosis of 28 months and a mean interval from cancer diagnosis to CAT of 9.4 months; 72% of them had stage IV neoplasms and 8% involvement of central nervous system. Most frequent primary cancer were lung (30%) and colorectal (21%), and 66.7% were adenocarcinomas. 78% of patients were on active oncospecific treatment (76% of them conventional chemotherapy, 9% hormonotheraphy and 15% biological therapy). The initial presentation was pulmonary embolism in 44% of patients, deep venous thrombosis in 34% and inusual thrombosis in 22%. LMWH was the most common initial treatment (78%) of patients with CAT; 52% of them received long-term anticoagulant treatment beyond 6 months, most of them (69%) with variable doses of DOACs. Minor and major bleeding were observed in 9.8 and 4.9% of patients respectively, with no deaths related to CAT or mayor bleeding.
Conclusions: Both LMWH and DOACs seem to be effective and safe for acute and long-term treatment for most of patients with CAT, while its dose-adjustment in this setting remains challenging.

2404 / #EV0964

ANEMIA AS A SIDE EFFECT OF TAPAZOLE TERAPY: A CASE REPORT

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Case Description: Mrs A.R., 82 years old, presented to the emergency department for dyspnea and peripheral edema since some days. Anamnestic data were: cronic kidney failure, cronic heart failure, arterial hypertension, recent hospedalization for similar clinical manifestations during which terapy with tapazole was started after new diagnosis of iperthyroidism with goiter. Relevant laboratory findings included: Hb 5.8g/dL, significant troponine increase (0.21 microg/L, 0.78 microg/L, 1.42 microg/L), proBNP 19,000 pg/mL
Clinical Hypothesis:
According with 2021 ESC Guidelines on heart failure, we investigated causes of acute decompensation included in the acronym CHAMPIT. There weren't modification of the ECG pattern, anyway a coronarography was performed and a diagnosis of chronic coronary disease was made. Hypertensive emergency, mechanical disfuntions, heart tamponade, infectious disease, arrhythmias and pulmonary embolism were excluded with ecocardiography, ECG and laboratory exams. Anemia remained the topical issue to be investigated.
Diagnostic Pathways: Blood count showed: RBC 1,820,000, Hb 5.8g/dl, MCV 91fL, MCH 32 pg, RDW 15%, HCT 16.5%, PLT 140,000, WBC 2900. Further examinations included: iron asset, venous blood smear, search for occult blood in the stool, hemolysis rate and dosage of erythropoietin, reticulocytes, folic acid, B12 vitamin. All normal except for low count of reticulocytes and anisocytosis and anisochromia in the venous smear.
Discussion and Learning Points: Anemia, a multifactorial condition, had an aplastic disorder as its main cause. Bone marrow biopsy wasn't performed since after transfusion haemoglobin was stable. Counsulting literature, rare cases of aplastic anemia caused by tapazole have been reported. Thus we hypothesized that tapazole could be the truble and we discontinue it. The patient was discharged and months later haemoglobin remained stable.

1131 / #EV0965

TRUE LAUNCH OF BALLOONS

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Case Description: Female, 85 years old, autonomous. History of hypertension and non-insulin-treated type 2 diabetes mellitus. She goes to the Emergency Department due to a convulsive crisis and holocranial headache with about 4 hours of evolution, with reference to a similar episode about 2 weeks ago.
Clinical Hypothesis: Psychogenic crises; transient ischemic

 DOI: 10.12890/2022_V9Sup1

accidents; hypoglycemia epilepsy
Diagnostic Pathways: Chest X-ray showed multiple bilateral nodular opacities. On chest CT described as "multiple solid pulmonary nodules, diffusely distributed in both lungs". CT Skull with presence of several hyperdense lesions. Tumor markers, with elevation of CA 19.9; CA 15.3 and CA 125. In the search for occult primary neoplasm, high and low endoscopy was performed, without significant changes. She was evaluated by gynecology, with an apparently normal gynecological exam for her age. Thyroid ultrasound and breast ultrasound were performed which did not detect changes in relief. Mammography was performed without changes suggestive of malignancy. Transthoracic biopsy of a pulmonary nodule performed, showing fragments of malignant neoplasm with immunocytochemical study showing immunoreactivity of neoplastic cells for Pax8 and CK7 in the absence of expression of CK20, P40 and TTF1, which are consistent with lung metastasis of carcinoma of probable gynecological or renal origin. Oriented to palliative care.
Discussion and Learning Points: With this case, we intend to emphasize the crucial importance of complying with cancer screening plans in order to detect them early and, consequently, reduce complications and improve prognosis.

547 / #EV0966

AN EVIL FLOWER

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Case Description: We presented the case of and 87 year old diabetic mand who was taken to the emergency depertment4 for acute confusional syndrome. On observation he has disoriented and with fever, Exuberant cauliflower penile lesion was found (7cm x 5cm x 6cm) with several necrotic areas and a foul smell, suspected of the malignant neoplasm. This lesion was recognized by the patient for at least 2 years and, out of fear, he had not resorted to the health systems. He underwent complete penile amputation and urethrostomy, confirming the presumed malignant etiology - moderately differentiated and keratinizing sqamous cell carcinoma of the penis (T2R0). He had an unfavorable evolution, with death after renal dysfunction and infectious complications.
Clinical Hypothesis: Cancer of penis; cellulitis.
Diagnostic Pathways: Biopsy ans surgery.
Discussion and Learning Points: The importance of the objective exam in all situations.

823 / #EV0967

DELIRIUM RELATED TO HYPERVISCOSITY SYNDROME

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Case Description: An 84 year-old woman, with no history of mental disorder, was hospitalized due to acute heart failure and thrombocytopenia. In the blood study, it was identified a monoclonal gammopathy (IgM kappa (1700 mg/dL) and MYD88 and sFLC mutations). Due to suspicion of immune thrombocytopenia, the patient was medicated with corticotherapy. Three days later, she started to get disoriented, with a delusional speech, associated with headache and photophobia.
Clinical Hypothesis: Corticosteroid-induced psychiatric symptoms; delirium caused by hyperviscosity syndrome; infection.
Diagnostic Pathways: A CT brain was perfomed and no acute changes were identified. Also, a fundoscopy was done and vessel tortuosity was found, which is common on retinal vascular occlusion caused, for example, by hyperviscosity states. Accordingly, the patient underwent plasmapheresis, and it was noticed an improvement in mental status, with resolution of delirium.
Discussion and Learning Points: The hyperviscosity syndrome consists in increased blood viscosity, usually related with increased circulating serum immunoglobulins, which can be seen in diseases as multiple myeloma and Waldenström macroglobulinemia. The clinical manifestations are visual changes, mucosal bleeding and neurological deficits. Geriatric population has multiple risk factors that make them more susceptible to delirium, occurring with moderate frequency in inpatients and it requires exclusion of organic pathology. In this clinical report, several factors could contribute to the confusion status, like the corticotherapy. The fundoscopy findings and the resolution after plasmapheresis, support the diagnosis of hyperviscosity syndrome as the etiological factor. Therefore, it is important to emphasize that the etiology of delirium is sometimes a clinical challenge and the hyperviscosity syndrome should be considered as one of the differential diagnosis.

1369 / #EV0968

PLANTAR ACRAL MELANOMA

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Case Description: We present the case of an 80-year-old caucasian woman, with a lesion in the left plantar region, detected during physical examination.
Clinical Hypothesis: The hypothesis of acral lentiginous melanoma was considered.
Diagnostic Pathways: The patient was treated by surgical excision, without known recurrence or metastasis to date.

 DOI: 10.12890/2022_V9Sup1

Discussion and Learning Points: Acral lentiginous melanoma is a rare type of melanoma that occurs in 1% of Caucasians over 40 years of age. It is not related to sun exposure. It requires a complete physical examination that includes areas that are difficult to see, such as the plantar regions, and it is usually diagnosed in advanced stages. It can also appear in the palmar regions and nail beds. In this patient, the physical examination of plantar regions allowed a good prognosis.

2682 / #EV0969

A RARE PRESENTATION OF SPINAL CORD COMPRESSION

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Case Description: This is the case of a 78-year-old woman, with a history of infiltrating ductal carcinoma of the right breast in complete remission, who came to the emergency department referring chronic low back pain of 6 months of evolution becoming disabling in the last 2 months. She reported unquantified weight loss, loss of appetite and asthenia. A recent magnetic resonance imaging (MRI) report described a space-occupying lesion at L3 with significant spinal cord compression.
Clinical Hypothesis: In the view of this findings, the clinical hypothesis was a tumour.
Diagnostic Pathways: Blood tests were requested, showing proteinogram with increased alpha1 and alpha2 and decreased gamma fraction, low levels of IgG and IgM, slightly elevated beta-2-microglobulin and LDH and slight renal function failure, not previously known. Calcium and proteins were in normal range. The analytical study was extended with serum paraprotein, no showing monoclonal component, but with elevated free kappa chains in serum and urine. CT body was requested without showing lesions at other levels and biopsy of the lesion was performed. A diagnosis of plasmacytoma/myeloma of kappa light chains with moderate cellular atypia was made. Bone marrow biopsy was performed, confirming the presence of 20% of plasma cells with atypia. Treatment was started with local radiotherapy and daratumumab, bortezomib, melphalan and prednisone.
Discussion and Learning Points: It is important to know about this type of myeloma given its rarity and the high diagnostic suspicion it requires since it does not present a monoclonal peak, being also very unusual its presentation as a solitary bone plasmacytoma without another concomitant lytic lesion.

1162 / #EV0970

OSTEOLYTIC LESIONS OF INCONCLUSIVE ETIOLOGY

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Case Description: 58-year-old-women, without relevant medical history or daily medication. Was admitted in Internal Medicine service with sepsis from urinary tract infection, without identifiable pathogen. Also presented intense lumbar back pain at right. Carried out 7 days of ceftriaxone, 1g once daily. The pain was thought to be mechanical and she was taking paracetamol and naproxen with little relieve. Analytically: decrease in C-reactive-protein, leukocytosis, neutrophilia. Without alteration of blood urea and creatinine. New onset normocytic/normochromic anemia and thrombocytopenia. Resolution of urinary tract infection, but maintained the lumbar pain, difficult to control. It was better controled when the patient was at rest, it had no irradiation and it was not worst during palpation. Without paresthesia, urinary/intestinal alterations or fever. The patient was hemodynamically stable.
Clinical Hypothesis: Nephrolithiasis, pancreatitis; Herpes zoster; spinal cord compression; metastatic cancer; spinal epidural abscess; vertebral osteomyelitis; radiculopathy.
Diagnostic Pathways: Lumbar radiography witout alterations. Lumbosacral computed tomography: osteolytic lesions in L2, L3, L4, S1. Began investigation of occult neoplasm. The patient presented worsening of general condition, with frequent need of red blood cell and platelet transfusion. Was admitted in the intensive care unit with haemorrhagic shock and passed way without finishing the etiological study.
Discussion and Learning Points: This case is important to demonstrate that we should always investigate every simptoms of the patient, instead of control them with medication. Every simptom is important, even if it is not part of the patient´s main problem. A controlled symptom may hide a serious illness that, as in the case described, may be responsible for patient's death.

972 / #EV0971

AUTOIMMUNE HEMOLYTIC ANEMIA - AN UNEXPECTEDLY FATAL OUTCOME

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Case Description: Autoimmune hemolytic anemia (AIHA) progresses with early destruction of erythrocytes promoted by antibodies bound to the cell membrane. Although the identification of the disease is simple, the etiology is often not evident and requires extensive investigation. AIHA can be idiopathic or associated with a wide range of pathologies that need to be diagnosed and managed in order to control the disease. We present the case of a 78-year-old woman with a known history

 DOI: 10.12890/2022_V9Sup1

of hypertension, type 2 diabetes and Parkinson's disease, treated with irbesartan, metformin and levodopa/benserazide. She presented to the Emergency Department due to fatigue with 1 week of evolution. She had mucosal discoloration and the initial analytical evaluation identified severe anemia (Hemoglobin 7.4g/dL) macrocytic and hyperchromic, with exuberant reticulocytosis, indicative of hemolytic anemia (Reticulocyte Index 7.7; Lactic Dehydrogenase 1666 U/L; Indirect Hyperbilirubinemia; Haptoglobin <8.2 mg/dL).
Clinical Hypothesis: Autoimmune Hemolytic Anemia (AIHA).
Diagnostic Pathways: Direct Coombs' Test was positive. Serologies, autoimmunity study and cryoagglutinin research were negative. It was administered corticosteroid therapy in high doses. However, the patient evolved with clinical worsening and a progressive drop in hemoglobin. The patient's medication was discontinued and Rituximab was started. The patient ended up having a cardio-respiratory arrest and died 15 days after admission. Subsequently, the conclusion of the drug-induced hemolytic anemia study identified erythrocyte autoantibodies induced by levodopa.
Discussion and Learning Points: Levodopa-induced hemolytic anemia is a rare condition, with very few documented cases, therefore identifying these conditions is difficult. Despite adequate medication and drug withdrawal, which usually present a response of up to 90%, the outcome was fatal.

2463 / #EV0972

COULD A SELECTIVE ESTROGEN RECEPTOR MODULATOR CAUSE A VENOUS THROMBOSIS?

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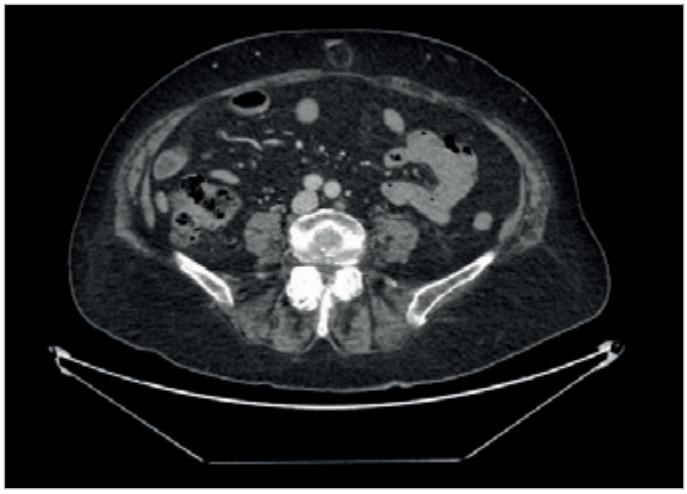
Case Description: A 74-year-old woman, type 2 diabetes, hypertension, breast cancer operated on in 1985, on treatment with bazedoxifene (selective estrogen receptor modulator SERM) who for the last 4 months has presented with a round, hard, painful lesion measuring 5 cm in the epigastrium with growth, as well as edema and erythema of the right lower limb. Laboratory tests showed deterioration of renal function (creatinine 1.18 mg/dl, glomerular filtration rate 46 ml/min), with all other laboratory parameters and chest X-ray normal. Abdominal CT scan showed a nodular formation in the epigastric subcutaneous cellular tissue in the midline of the anterior abdominal wall measuring 4.1 by 3.4 cm, suggestive of a small mural abscess. Doppler ultrasound confirmed acute deep vein thrombosis in the right infrapopliteal veins.
Clinical Hypothesis: The existence of a radiological clinical dissociation is evident, as patient shows no clinical signs of infection that would justify an abscess. Deep vein thrombosis could be related to the neoplastic process, or also to treatment with bazedoxifene.
Diagnostic Pathways: Given the history of breast neoplasia, a body CT scan was performed, which revealed pulmonary nodules compatible with metastasis, a mass in the anterior abdominal wall infraumbilical compatible with a tumor implant with biopsy taken, and a finding of adenocarcinoma compatible with primary breast cancer.
Discussion and Learning Points: This patient suffered from a metastatic neoplastic disease, which may justify deep vein thrombosis, without forgetting that there is a risk of thrombosis in treatment with hormonal blockade (SERM), although it is a rare adverse reaction.



#EV0972 Figure 1.

2471 / #EV0973

STUDY DYSPNEA: RIGHT ATRIAL MASS

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Case Description: A 81-year-old male, ex-smoker (31 pack-years), high blood pressure, intrahepatic cholangiocarcinoma treated with thermoablation in 2016, non-malignant liver LOE (biopsy) treated with thermoablation (2018). He suffered from increasing dyspnea at rest for 2 months, without fever or other symptoms. Examination showed 83% baseline oxygen saturation, up to 96% with 3 liters of oxygen. Cardiopulmonary auscultation: arrhythmic and hypophonesis in right lung with crackles in the left base. Bilateral pitting edema in both lower limbs. Laboratory tests revealed an altered liver profile with a cholestatic pattern (GGT 142 U/l, FA 92U/l, total bilirubin 1.7 mg/dl), elevated natriuretic peptide (serum NT-proBNP 3863 pg/ml), hemoglobin 12.3 g/dl, normochromic normocytic, with no increase of acute phase reactants. Electrocardiogram: atrial fibrillation, without repolarization alterations.
Clinical Hypothesis: Given the suspicion of heart failure

 DOI: 10.12890/2022_V9Sup1

decompensation, without forgetting the possibility of a COPD exacerbation, a transthoracic echocardiogram was performed.
Diagnostic Pathways: It showed a large mass that occupies the entire right atrium, crosses the tricuspid valve to the RV, with a tumor appearance. The study was completed with tumor markers (elevation of CA 19.9 (142U/ml)) and body computed tomography that showed a voluminous hepatic mass of primary appearance with extensive vascular invasion that affects the inferior vena cava and also reached the right heart cavities.
Discussion and Learning Points: Intrahepatic cholangiocarcinoma is the second most common primary liver tumor. Vascular invasion involving a tumor thrombus in the inferior vena cava and/or right atrium is an unfavorable prognostic factor after resection of intrahepatic cholangiocarcinoma.

1316 / #EV0974

WHEN FACIAL APPEARANCE HIDES ANOTHER DIAGNOSIS

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Case Description: A 73-year-old male presented with unspecific malaise,dizziness and facial and left upper limb edema,for the last 3 weeks.He associated the symptoms with an accidental contact with cream for leg pain.He's ex-smoker and has type 2 diabetes,hypertension and dyslipidemia,treated with ACE inhibitor, statin, oral antidiabetics and insulin. Changes in medication were excluded. He denied previous episodes, history of atopy or allergy, and previous cases in his family. On examination,swelling and erythema of peri-orbital and cervical regions,and left arm were noted,as well as pruriginous erythema of back and upper limbs. He had no signs of life-threatening airway compromise and no need for oxygen, with discrete bilateral crackles noticed.Subsequent investigations revealed discrete leukocytosis without eosinophilia, elevated CPK and hepatic cytolysis.
Clinical Hypothesis: The first diagnostic hypothesis were allergic or drug reaction.
Diagnostic Pathways: Under corticotherapy and antihistaminic, indolent clinical improvement occurred. Head and thoracic CT ruled out central nervous system or vascular involvement and revealed a suspicious lesion in the right upper lobe.Lung biopsy by bronchofibroscopy revelead poorly differentiated carcinoma, morphologically suggestive of small cell carcinoma. Associated rhabdomyolysis and cutaneous manifestations favored the diagnostic of paraneoplastic dermatomyositis. Skin biopsy suggested dermatomyositis. Patient died before muscle biopsy.
Discussion and Learning Points: Angioedema is a life-threatening condition with several forms.Acquired angioedema is rare and mainly associated with benign etiologies.However adult-onset angioedema should raise suspicion of not-so-benign diseases. Paraneoplastic syndromes occurs in approximately 10-20% of lung cancer,with dermatologic system being one of most affected. This case illustrates the challenges of an etiological diagnosis of angioedema,evidencing the importance of detailed research beyond the most common causes,and the fundamental role of Internal Medicine in integrating every detail in the absence of a evident etiology.

108 / #EV0975

PERNICIOUS ANEMIA PRESENTING AS PANCYTOPENIA AND HEMOLYSIS

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Case Description: A 29-year-old male, with an unremarkable past medical history and no dietary restrictions, presented to the Emergency Department with a one-month history of fatigue and anorexia. Physical examination was remarkable for tachycardia and pallor. Blood tests showed severe anemia (Hemoglobin 4.6 g/dL), macrocytosis (MCV 104.7 fL), leucopenia (leukocytes 3 100/uL), thrombocytopenia (platelets 78,000/uL), elevated LDH (11,394 U/L) and indirect hyperbilirubinemia (total bilirubin 1.4 mg/dL and direct bilirrubin 0.4 mg/dL). The peripheral blood smear showed marked anisocytosis, poikilocytosis, dacryocytes schistocytes and elliptocytes.
Clinical Hypothesis: Pancytopenia and hemolysis.
Diagnostic Pathways: Further investigation revealed a low reticulocyte index (1.32), low haptoglobin (1 mg/dL), low vitamin B12 (65 pg/mL) and normal folic acid (5.5 ng/mL), negative direct Coombs test, positive anti-Intrinsic Factor antibody and doubtful reaction to anti-parietal cell antibody. The patient underwent treatment with intramuscular vitamin B12, with normalization of B12 levels, progressive improvement of pancytopenia and resolution of symptoms.
Discussion and Learning Points: Pernicious anemia is an autoimmune disease affecting the gastric mucosa, causing destruction of gastric parietal cells and reduction of Intrinsic Factor. This case illustrates a rare presenting form of vitamin B12 deficiency secondary to pernicious anemia. Hemolysis occurred due to intramedullary ineffective erythropoiesis and pancytopenia due to the inadequate DNA synthesis. Despite the vast differential diagnosis for pancytopenia, vitamin B12 deficiency should be suspected, particularly if macrocytosis is present. The appropriate diagnosis and treatment of pernicious anemia is extremely important, since vitamin B12 deficiency can result in severe hematological and neurological complications.

 DOI: 10.12890/2022_V9Sup1

1376 / #EV0976

LARGE CELL NEUROENDOCRINE CARCINOMA OF THE DUODENUM: A DIAGNOSTIC CHALLENGE

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Case Description: A 51-year-old man with previous history of alcohol abuse and no other relevant past medical history presented to the emergency department with a 1-week history of right upper quadrant abdominal pain and vomiting. Physical examination was remarkable for tenderness to palpation of the right upper quadrant.
Clinical Hypothesis: NENs are rare neoplasms that arise from the neuroendocrine system of various organs. Recently, NETs and NECs are being increasingly reported which can be explained by the improvement of diagnostic techniques, like endoscopy. NEC rarely occurs in the duodenum and duodenal NECs represent 6-8% of all NEN of the gastroenteropancreatic system. Of these, more than 90% occur in the first or second portion of the duodenum.
Diagnostic Pathways: Computed tomography of the abdomen showed marked gastric distension and parietal thickening of the second duodenal portion with consequent luminal stenosis, compatible with para-duodenal pancreatitis. There, tumor markers, including cancer antigen 19-9 and carcinoembryonic antigen, were increased and during the procedure a locally advanced duodenal neoplasia was found with invasion of the mesenteric root. Hepaticojejunostomy and gastrojejunostomy with double Roux-en-Y digestive tract reconstruction was performed. The tumoral mass was removed and analyzed, showing extensive infiltration by poorly differentiated carcinoma with morphology and immunohistochemical profile compatible with large cell neuroendocrine carcinoma (Ki67 > 60%, synaptophysin +, chromogranin A +).
Discussion and Learning Points: The diagnosis of this type of tumor can be challenging because the clinical manifestations are variable and nonspecific. Imaging is a very useful tool, but its interpretation is not always easy, which can delay diagnosis.

392 / #EV0977

SWOLLEN LOWER LIMB - JUST A DEEP VENOUS THROMBOSIS?

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Case Description: Female, 50 years old, no previous medical history or medication, except an allergic reaction to ibuprofen. A right lower limb hard edema, from the foot to the thigh root, presenting for over a week and worsened with inflammation signs, led the patient to the Emergency Room (ER).
Clinical Hypothesis: Deep venous thrombosis (DVT); lower limb cellulitis; lymphoma
Diagnostic Pathways: In the ER the patient's analysis presented elevated reactive C protein and D-dimer levels. Hypocoagulation was initiated and she was admitted with the diagnosis of DVT. A lower limb ultrasound was performed confirming partial thrombosis of the common femoral vein and also showing an adenopathic inguinal conglomerate. The CT scan hinted at a lymphoproliferative disease, that was confirmed in biopsy as Hodgkin's Lymphoma. It was also requested Positron Emission Tomography that confirmed the extensive lymphoproliferative disease (pelvic, lumbar, and right thigh) with suspicion of lung and bone metastasis.
Discussion and Learning Points: The patient started chemotherapy with swelling reduction and minimum side effects. DVT is a frequent entity, to which there are various causes and risk factors, highlighting malignancy. Hematological malignancies and their treatments have a high risk of thrombotic events. The take-home message is to always investigate the etiology of a DVT because several "idiopathic" cases are possibly associated with a malignant condition.

Harrison's Manual of Medicine, 20th Edition

1248 / #EV0978

NOT EVERYTHING IS CELLULITIS OR DEEP VEIN THROMBOSIS

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Case Description: Oncological diseases are currently an important public health problem, showing increasing importance in our society. 78-year-old man. Personal history of arterial hypertension. Admitted to the Emergency Department with a 3-week evolution of exuberant and unilateral edema of the left lower limb, with trophic skin changes in the lower third of the limb, with no previous history of trauma, wounds or stings. He denied a history of fever, dyspnea, or any other symptoms.
Clinical Hypothesis:Deep venous thrombosis as well as an infectious skin condition was considered.
Diagnostic Pathways: Venous Doppler echocardiography of the lower limbs excludes deep vein thrombosis. Analytically, it is worth highlighting acute kidney injury with creatinine of 2 mg/dL, without other relevant alterations and without elevation of inflammatory parameters suggestive of an infectious condition. Computed tomography highlights "moderate ureterohydronephrosis, with the ureter distended to the region of the iliac vessels, where a heterogeneous, solid mass measuring 5.4x5.4cm is observed, with an infiltrative appearance, without a cleavage plane with

 DOI: 10.12890/2022_V9Sup1

the left iliac psoas muscle and with the iliac vessels, translating an unresectable neoformative lesion, deserving histological characterization." The histological study of the mass documented "Urothelial Carcinoma; Staging: T4 N0 M0". After stabilization, the patient was discharged and referred to a Medical Oncology consultation.

Discussion and Learning Points: Urothelial carcinoma appears more frequently after the age of 60 and is 3 times more frequent in men. The most common symptom picture involves irritating urinary symptoms, such as dysuria or hematuria. Other less common symptoms include suprapubic pain. The case describes an atypical presentation of urothelial carcinoma.

1268 / #EV0979

DIFFERENTIAL DIAGNOSIS OF LOW BACK PAIN, NOT EVERYTHING IS AS IT SEEMS

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Case Description: Multiple myeloma is characterized by neoplastic proliferation of plasma cells, bone infiltration, and production of monoclonal immunoglobulins. Unlike other neoplasms, the definition is clinical-pathological, requiring the presence of clear manifestations of severe organ damage, which implies delays in diagnosis and therapy. It mostly affects patients with an average age of 70 years, with a slight predominance in males. Bone pain is one of the most common symptoms.

Clinical Hypothesis: 77-year-old woman with a personal history of atrial fibrillation and arterial hypertension. One month before coming to the Emergency Department, complains with progressively worsening low back pain that only improves with rest. The pain is characterized as grade 8/10.

Diagnostic Pathways: Blood count with normocytic and normochromic anemia (Hb 9.5 g/dL) and biochemistry showing hypercalcemia. Abdominal-pelvic CT reveals extensive osteopenia, with multiple lytic lesions dispersed throughout all segments, an aspect that is compatible with the clinical hypothesis of myeloma. Compressive fractures of several vertebral bodies, fractures of several bilateral costal arches, and fractures of the left ischiopubic and ileopubic ramus. Myelogram with 1.3% immunophenotyping of monoclonal plasma cells with immunophenotypic criteria compatible with igg kappa multiple myeloma. Pain control with opiates and subsequent follow-up by hematology.

Discussion and Learning Points: Differential diagnosis is not always easy and must comply with clinical, laboratory and histopathological criteria. The clinical prognosis in patients with multiple myeloma depends on the characteristics of plasma cells and patient-specific factors such as age, comorbidities and functional capacity. Everything will depend on the patient's biological factors in a specific interaction with the existing neoplastic cells.

227 / #EV0980

PARANEOPLASTIC HYPEREOSINOPHILIA - A RARE ASSOCIATION

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Case Description: A 80-year-old male, with a previous history of smoking and chronic obstructive pulmonary disease (COPD) was admitided to the Emergency Department due to the onset of progressive dyspnea and orthopnea within the previous two weeks. No other accompanying symptoms were reported. Physical examination was unremarkable except for the presence of nodular-like pruritus papules scattered on the trunk, back an tights.

Clinical Hypothesis:

Hypereosinophilia is frequentely associated with infections, inflammatory and hematological malignancies. Its association with solid tumors is rare, particularly lung cancer.

Diagnostic Pathways: Blood tests revealed marked eosinophilia (8690/uL) and elevetad C-reactive protein (62 mg/L). Chest CT documented the presence of a mass with irregular margins of 4.1x2.5 cm in the middle lobe. The abdominopelvic CT revealed the presence of hypodense lesions suggestive of diffuse metastization in the abdominal cavity. The microbiological exams were unremarkable (parasitological and blood cultures were negative; serological studies for Fasciola hepatica, Toxocara sp., Trichinella spiralis and Strongyloides stercoralis were also negative). A biopsy of the lung and cephalopancreatic lesions were made. The histological analysis was consistent with lung adenocarcinoma (TTF1 expression, absence of CDX2 and p40). The patient underwent and addition biopsy of the skin lesions, whose subsequent analysis was consistent eosinophil-mediated inflamation in a patient with persistent hypereosinophilia. The patient evolution was unfavourable, with rapid progression of the intra-abdominal lesions and subsequent liver failure and died in the hospital.

Discussion and Learning Points: The association of hypereosinophilia with mestastic lung adenocarcinoma is rare. The mechanism of this paraneoplastic manifestation, which is related to worse prognosis and survival, is not fully clarified.

 DOI: 10.12890/2022_V9Sup1

1036 / #EV0981

MYELODISPLASTIC SYNDROMES - TOO YOUNG FOR IT?

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Case Description: A caucasian 40-year-old male, active smoker, with no other relevant clinical background, presenting with dizziness, nausea and asthenia for the last 2 months. Relevant findings at the physical examination included skin pallor and tachycardia. Laboratorial blood analysis showed macrocytic anaemia (Hgb 5.0 g/dL) with folate deficiency, thrombocytopenia (platelets 50000/uL) and low haptoglobin. The peripheral blood smear showed an increased number of blasts (8%).
Clinical Hypothesis: Taking into account clinical features and complementary tests available, an oncologic disorder, myeloproliferative or myelodisplasic syndrome were the most likely diagnosis.
Diagnostic Pathways: After receiving blood transfusion support and folate supplementation with clinical and analytic improvement, additional etiological investigation was performed. Abdominal ultrasound showed slight homogeneous hepatosplenomegaly. Serology for HIV, HBV and HCV were negative. Myelogram was performed and revealed an hypercellular bone marrow, low megakaryocytes and myeloid dysplasia with the immunophenotyping showing 12.5% myeloid blasts. This clinical and diagnostic work-up revealed signs compatible with a myelodysplastic syndrome. The patient initiated hydroxyurea 500 mg and was referred to a specialized center for further diagnostic steps regarding a definitive diagnosis and the implementation of the best suitable treatment.
Discussion and Learning Points: Commonly found in aging population, myelodisplastic syndrome (MDS) refers to a heterogeneous group of clonal hematopoietic disorders characterized by one or more peripheral blood cytopenias, ineffective hematopoiesis and recurrent cytogenetic abnormalities. This clinical case aims to raise awareness to the rare but possible presentation of MDS at younger ages and the importance of offering a fast and effective diagnosis and treatment aiming to prevent leukemic transformation.

2032 / #EV0982

PRIMARY MEDIASTINAL LARGE B CELL LYMPHOMA

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Case Description: A 22 year-old male patient, with no pathologic history or usual medication, presented a swelling in the sternal notch, with 15 days of evolution, and no other symptoms associated. Physical examination revealed tachycardia and a swelling above the sternum of elastic consistency, with little mobility, measuring 2 cm of longest axis, and lacking signs of inflammation.
Clinical Hypothesis: Lymphoma, tuberculosis, sarcoidosis and viral infection were the main diagnostic hypotheses.
Diagnostic Pathways: Analytical evaluation revealed increased CRP, cardiac markers and d-dimers. Viral serologies, IGRA test and SACE were negative. B2-microglobulin was normal. EKG showed sinus tachycardia. The transthoracic echocardiogram showed mild pericardial effusion. Chest and abdominal angio-CT revealed, in the superior mediastinum, centered on the thymic area, a voluminous mass with lobulated contour and small necrotic areas, with a slight compressive effect on the left brachiocephalic vein. The biopsy of the mass revealed a diffuse large B cell lymphoma. PET study revealed the same alteration visualized in angio-CT, which corroborated the diagnosis of Primary Mediastinal Large B-Cell Lymphoma.
Discussion and Learning Points: This work intends to report a case of a Primary Mediastinal Large B-Cell Lymphoma, which is a rare hematologic disease that mainly affects young adults. It is an aggressive, locally invasive neoplasm that arises in the thymus, with a rapid onset and compression of intrathoracic structures which causes vascular and cardiac complications. A correct and fast approach, which includes recognizing the symptoms, staging the disease and a histomorphology and immunophenotype characterization, is essential for a better outcome for the patient.

1919 / #EV0983

THE IMPORTANCE OF THE PREVIOUS MEDICAL HISTORY IN THE DIAGNOSIS OF A HIDDEN PRIMARY TUMOR

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Case Description: The patient is a 51 year old female with an unremarkable medical history. As an only antecedent she had gone under breast plastic surgery to increase the size 8 years before. She consulted because of shortness of breath and lower back pain during the last few months. A chest CT was performed where lytic bone lesions were observed in vertebral bodies, humeral heads and ribs. Physical examination showed no apparent enlarged lymph nodes or masses.
Clinical Hypothesis: Given the bone methastasis, the primary tumor had to be found among several possibilities.
Diagnostic Pathways: Blood tests showed high levels of ACE, CA 15.3 and CA 125. A head CT, Mammogram, Endoscopy and Fibrobronchospy were normal. A Bone marrow biopsy was informed as medullary tissue infiltrated by carcinoma, not being possible to specify the origin. At this point, a PET CT was requested, describing a suspicious lession in the right colon and

 DOI: 10.12890/2022_V9Sup1

several right axillary enlarged lymph nodes. A Colonoscopy was carried out being normal. After this, a right axillary lymph node was removed. The tissue analysis showed it was carcinoma metastasis, compatible with breast primary origin.
Discussion and Learning Points: This diagnosis could be justified by the presence of a hidden tumor in the removed tissue years before during surgery to place the breast implants. The importance of this case lies in the fact that there were no leading findings during physical examination and that the mammogram was normal, which made us realise how important is to take thoroughly into account the previous medical history.

231 / #EV0984

MEGALOBLASTIC ANEMIA AS A FIRST MANIFESTATION OF GASTRIC CANCER

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Case Description: Megaloblastic anemia is a form of macrocytic anemia that occurs due to an impaired DNA synthesis in the hematopoietic precursor cells. The most frequent causes of this anemia are vitamin deficiencies, mainly vitamin B12 or folate, drugs and myelodysplastic syndromes. We present the case of a 37-year-old patient with protein-calorie malnutrition, chronic diarrhea and a 3-year history of megaloblastic anemia that had not been treated.
Clinical Hypothesis: The blood tests showed vitamin B12 deficiency, which could be explained by the undernutrition of the patient, but further studies had to be done in order to rule out other pathologies like pernicious anaemia or chronic gastritis.
Diagnostic Pathways: The autoimmune studies were normal, so the study was completed with an upper gastric endoscopy that revealed atrophic pangastritis and the biopsy indicated the existence of a mixed carcinoma associated with areas of intestinal metaplasia and dysplasia. After the realization of diverse imaging techniques to evaluate the tumor extension, it was classified as tumor stage T2N0M0 and the patient underwent a laparoscopic total gastrectomy. At the present time, the size of the red blood cells has returned to normal.
Discussion and Learning Points: Chronic gastritis main cause is H. pylori infection. There is a loss of normal stomach mucosa with intestinal metaplasia, which can end up in an acid-free stomach. This situation increases the risk of gastric cancer and may as well interfere with B12 absorption. This clinical case highlights the importance of investigating the underlying cause of vitamin deficiencies, specially in long time evolution cases.

1314 / #EV0985

INTERSTITIAL PNEUMONITIS - THE IMPORTANCE OF AN EARLY DIAGNOSIS

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Case Description: The interstitial pneumonitis induced by chemotherapy (QT) is a rare but well known adverse event of taxanes. In a lesser scale, there is also evidence of lung toxicity with trastuzumab. A 75 years old woman with invasive ductal breast carcinoma HER2+ under neoadjuvant QT (docetaxel, transtuzumab and carboplatin) presented in the emergency department 17 days after the fourth QT cycle with generalized malaise and dry cough without fever.
Clinical Hypothesis: Firstly it was assumed the diagnosis of bilateral pneumonia.
Diagnostic Pathways: In the thoracic CT scan presented with extensive densification of both lungs with diffuse ground glass. She had elevation of the inflammatory markers and severe respiratory insufficiency. She was admitted in the intensive care unit (ICU) for bilateral pneumonia in immunosuppressed patient and started board-spectrum antibiotics. In the ICU she presented clinical worsening with the need of mechanical invasive ventilation. After discussion with oncology and pneumology colleagues the hypothesis of interstitial pneumonia secondary to drugs was set. Bronchofibroscopy and bronchoalveolar lavage were performed and, after the negative cultural results, corticotherapy was initiated. Despite these clinical measures, the patient presented unfavorable evolution, complicated with large bilateral stroke and died in the ICU.
Discussion and Learning Points: The interstitial pneumonia is a rare adverse effect, but one that we should be aware due to its high mortality and presentation that mimics a pulmonary infection. The early initiation of proper therapy might be life-saving. This clinical case is particularly relevant as it shows the difficulty in establishing the diagnosis and potential bad outcome in consequent delay in initiating proper therapy.

 DOI: 10.12890/2022_V9Sup1

2118 / #EV0986

MESOTHELIOMA: A DRASTIC EVOLUTION

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Case Description: Malignant pleural mesothelioma (MPM) is a rare and highly aggressive intrathoracic neoplasm that typically offer poor prognosis. We present a case of a 58-year-old woman with a history of endometrioid adenocarcinoma. She presented with dyspnea and cough with 3 weeks of evolution with a gradual worsening of dyspnea and orthopnea. She was admitted with a diagnosis of right lobar pneumonia and associated pleural effusion. Thoracic CT showed pleural thickening in the right hemothorax.

Clinical Hypothesis: Case discussed with gynecology, given the pathological history, and decided to perform PET and pleural biopsy. PET showed extensive right pleural malignant involvement.

Diagnostic Pathways: In two weeks of hospitalization, the patient presented clinical worsening. A thoracic CT showed rapid progression with the appearance of multiple solid masses in the pleura and pleural space on the right, raising the hypothesis of mesothelioma. The result of the pleural biopsy confirmed the diagnosis. The patient denied exposure to asbestos. The patient was oriented to the Oncological Pulmonology, having undergone 2 cycles of chemotherapy, however, she presented an exponential progression of the disease, ending up dying 2 months after diagnosis.

Discussion and Learning Points: In general, the development of MPM is linked with a history of asbestos exposure; however, our patient had no history of asbestos exposure. In literature, there also exists pertaining to the incidence of mesotheliomas in people never exposed to asbestos. MPM continues to present as a diagnostic challenge owing to its long latent period and need for histological confirmation, with a poor prognosis due to its limited therapeutic options.

1637 / #EV0987

BREAST CANCER AND PSEUDOCIRRHOSIS

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Case Description: We report a clinical case of a 39 years old patient with history of stage IIB luminal B breast cancer operated in 2019, with subsequent radiotherapy, currently on hormone therapy with tamoxifen. No analytical or radiological evidence of recurrence at the last check-up the previous month. She consulted for abdominal pain in the right hypochondrium and weight loss of 10 kg in the last two months. Analytically, there was a slight elevation of liver enzymes (AST 60 U/L (NV:8-33). An abdominal CT scan was performed, showing a small, nodular liver with lobulated edges without space-occupying lesions.

Clinical Hypothesis: As a differential diagnosis we posed a possible progression of her oncological process, considering her history of malignancy and the associated constitutional syndrome despite the unusual form of presentation and absence of local recurrence or metastasis to other levels; and liver damage related to hormone treatment, less likely due to late onset.

Diagnostic Pathways: In order to guide the proposed diagnoses, we ordered a dynamic liver MRI which showed a pattern of pseudocirrhosis and an analytical test which revealed an exponential rise of tumour markers (CA 15.3: 420 U/mL (NV:<35). A liver biopsy was performed demonstrating an extensive infiltration by a neoplastic proliferation compatible with mammary origin.

Discussion and Learning Points: Pseudocirrhosis describes an altered liver morphology resembling cirrhosis, in the absence of the typical histological pattern. It is an infrequent complication of metastatic breast cancer associated to a poor prognosis which hences the importance of an early diagnosis.

1347 / #EV0988

PAPILLARY THYROID CARCINOMA, A RARE CAUSE OF FEVER OF UNIDENTIFIED ORIGIN

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Case Description: 77 year-old male, farmer with prior history of hypertension, type 2 diabetes and dyslipidemia and hard alcoholic and smoking habits. Came to emergency room for severe anemia (Hg 4.6mg/dl). On admission, pale, hipotensive and tachycardic, without any other changes on physical examination.

Clinical Hypothesis: Infection, auto-immune or onco-hematologic disease.

Diagnostic Pathways: Analytically: anemia (Hg 4.3 g/dL), elevated inflammatory parameters (leukocytosis 13.43/uL and neutrophilia 12,000/uL; PCR 18 mg/dL). Peripheral blood smear with severe iron deficiency anemia with anisocytosis and hypochromia. Further study showed severe functional iron deficiency without blood loss (iron 8; ferritin 64), increase of kappa and lambda free light chains. During hospitalization starts high fever peaks and started empirical ceftriaxone. Imagiological study was negative. Normal thyroid function, autoimmune study, and sars-cov 2 and other virologies. Performed transthoracic ecocardiography to exclude endocarditis. Hemoculure and uroculture negative, but sputum with ESBL positive *Klebsiella pneumoniae* and then started directive antibiotic therapy with piperacillin/tazobactam. Control cultures were negative but the patient remained feverish for at

 DOI: 10.12890/2022_V9Sup1

least a weak after completing antibiotic cycle. This diagnostic challenge motivated fever without a focus study showing remaining high PCR 18 mg/dL, negative procalcitonin and high erythrocyte sedimentation rate. Despite the broad spectrum antibiotic therapy, he maintained fever and elevated inflammatory parameters. In orther to these clinical status Performed a PET-scan that suggests malignant neoplasm in the left thyroid lobe confirmed by biopsy.
Discussion and Learning Points: We describe a challenging case of fever without focus that culminated into a oncologic diagnosis that illustrates the need for an early diagnosis for a good outcome.

650 / #EV0989

DEVELOPMENT OF MYELODYSPLASTIC SYNDROME WITH AUTOIMMUNE FEATURES AFTER LONG-TERM HYDROXYUREA TREATMENT IN A PATIENT WITH SICKLE CELL ANEMIA

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Case Description: A 41-year-old Caucasian male was referred because of recurrent fever partially responding to various antibiotic regimens. He had a history of homozygous sickle cell anemia (SCA) treated with hydroxyurea (HU) for 19 years, which was recently discontinued. Two months after initial presentation of fever, he developed ulcerative lesions of oral mucosa and the scrotum. An extended laboratory and imaging screening revealed no infectious agent or malignancy.
Clinical Hypothesis: The patient was given oral corticosteroids as his symptoms were considered of autoimmune origin. Thus, one month later he presented again with recurrent fever and progressively deteriorating thrombocytopenia.
Diagnostic Pathways: Bone marrow biopsy was performed. Pathology report revealed refractory anemia with excess blasts-1 (RAEB-1) while peripheral blood cytogenetic analysis revealed complex cytogenetic changes. Taking into consideration the complex cytogenetic changes, the chronic use of HU and the atypical symptoms of the patient (fever and ulcers), the diagnosis of therapy-related MDS with autoimmune features was made.
Discussion and Learning Points: In patients with SCA receiving long-term treatment with HU, only a few cases of secondary MDS or leukemia have been reported, rendering close monitoring mandatory. Fever and ulcers are rarely the presenting symptoms of MDS, and -in our case- the complex cytogenetic changes make the causal relationship to HU highly possible.

2706 / #EV0990

NEOPLASIES AND AUTOIMMUNE DISEASES: A CLOSE RELATION

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Case Description: We present a 61-year-old man who attended the Emergency Department with a chief complaint of B symptoms (asthenia, evening fever and weight loss). The patient had a clinical history of cardiovascular risk factor and amyotrophic lateral sclerosis (ALS) diagnosed soon before, after a very unusual presentation of the disease consisting of agraphia, dysarthria, diplopia and nystagmus. Physical examination showed an axillar mass of 10x5 cm and blood tests revealed a bicytopenia (anaemia and thrombopenia) and abnormal liver-enzymes results (ALT 169 U/L, AST 162 U/L, GGT 153 U/L, ALP 273 U/L) without hyperbilirubinemia. After further studies during hospitalisation, we came up with the diagnosis of diffuse large B-cell lymphoma (DLBCL) with the patient suffering from an hemophagocytic syndrome during its stay, phenomenon that explain the previous laboratory results.
Clinical Hypothesis: Given the present medical history we considered the possibility of the antecedent of ALS being part of a paraneoplastic neurological syndrome that appeared before the neoplasia itself.
Diagnostic Pathways: Onco-neurological antibodies are widely used to diagnose paraneoplastic neurological syndromes, although the entity is frequently assumed even with the negativity of these. Clinical criteria, consisting of concomitancy of neurologic symptoms and oncologic disease and a bizarre clinical presentation, can be met to reach the diagnosis.
Discussion and Learning Points: Paraneoplastic syndromes are more frequent than thought (up to 15% of cancers, depending on the organ affected) and often represent a diagnostic challenge. Nonetheless, its identification means a drastic change in terms of management and prognosis.

2009 / #EV0991

A RARE MESENCHYMAL TUMOR AS AN INCIDENTAL FINDING

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Case Description: We report a 68-year-old Caucasian man with a history of congestive heart failure, atrial flutter, diverticulosis, polyps of the colon and rectum, external hemorrhoids and a 54 pack-year smoking history. The patient presented to the Emergency Department with a 2-week history of rectorrhagia and dyspnea. On admission, physical examination was notable for

 DOI: 10.12890/2022_V9Sup1

rales on auscultation and bilateral leg edema. Lab tests showed a hemoglobin level of 4.7 g/dL. The patient was admitted to the medical floor.
Clinical Hypothesis: Differential diagnosis included blood losses due to diverticulosis, polyps of the colon and rectum or hemorrhoids. However, due to his age and his smoking history, it was imperative to exclude malignancy.
Diagnostic Pathways: The patient had a normal endoscopy and colonoscopy from the month prior to admission, apart from diverticulosis. To further investigate, a thoraco-abdominopelvic CT scan was performed. It showed an oval pleural lesion in the inferior lobe of the right lung, 51x45 mm, with no signs of invasion of the thoracic wall. No other significant results were found. A CT-guided percutaneous needle biopsy for this pleural lesion was performed, and it revealed pleural mesenchymal tumors with indication for surgical treatment and better characterization. This type of neoplasia is extremely rare. His blood losses stopped a few days after initiation of mesalazine, and the most likely etiology for his blood losses was considered to be diverticulosis.
Discussion and Learning Points: This case not only illustrates an incidental finding of clinical significance, but also a rare neoplasia diagnosed incidentally.

865 / #EV0992

ANTERIOR MEDIASTINAL MASS: A DIFFERENTIAL DIAGNOSIS

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Case Description: Male, 18 years old. Previously healthy and no relevant medical history. The patient resorted to the Emergency Department due to chest pain, tiredness, cough, dyspnea, weight loss (about 10kg in approximately 2 months), fever and night sweats.
Clinical Hypothesis: Infectious pulmonary disease; superior vena cava syndrome (SVC); thymic mass; teratoma/germ cell tumor; lymphoma; thyroid tissue pathology.
Diagnostic Pathways: The patient was admitted for additional investigation. The posterior-anterior chest radiography showed an anterior mediastinal enlargement with centered opacity, with no sign of a silhouette with the aortic arch. The computed tomography showed an exuberant solid mass (~21cm), heterogeneous, vascularized, with a starting point in the anterior mediastinum with compression and invasion of various spaces and structures and a massive left pleural effusion. A biopsy was performed, with the histological result of classic Hodgkin's Lymphoma of the sclero-nodular type. A Positron Emission Tomography was performed for initial disease staging and identified uptake areas suggestive of invasion of the left pulmonary hilum, bilateral supraclavicular and laterotracheal adenopathies, pericardial and diaphragmatic pleura uptake foci. The chemotherapy treatment was carried out by the Hematology team.
Discussion and Learning Points: The role of Internal Medicine, in this case, was fundamental due to the speed-up of diagnosis, which allowed for an effective treatment. In cases like this, the Internist should be alert to symptoms related to superior vena cava syndrome, caused by direct involvement or compression of mediastinal structures, causing a wide range of symptoms such as cough, stridor, shortness of breath, pain, dysphagia, hoarseness, facial and/or upper extremity swelling due to vascular compression.

1236 / #EV0993

A HIDDEN DIAGNOSIS - A CASE OF EPIDEMIC KAPOSI'S SARCOMA

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Case Description: A 53-year-old man, from Guiné-Bissau, presented with headache, fatigue, hemoptoic cough and fever during the previous month. The pulmonary auscultation was abnormal, with decreased breath sounds. The physical exam showed bilateral inguinal lymphadenopathy and a violaceous papular skin lesion on the right upper thigh.
Clinical Hypothesis: Facing these clinical signs, the more evident hypotesis were a tuberculosis or a pulmonary neoplasia.
Diagnostic Pathways: Thoracic CT-scan showed multiple mediastinic adenopathy and several pulmonary consolidation areas, with no signs of cavitations. Lab workup revealed an increased C-reactive protein and HIV I positive with CD4+ T cells count of 36 cel/uL. Serological testing for HBV, HCV, HAV, CMV, Toxoplasmosis and T*reponema pallidum* antibodies was negative. The acid fast bacilli testing in bronchoalveolar lavage (BAL) was negative, as well as IGRA and *Mycobacterium tuberculosis* PCR. *Pneumocystis jirovecii* PCR was also negative. The serum angiotensin converter enzyme and flow citometry excluded sarcoidosis, and there were no neoplasic cells. The cultural exam was positive for *Candida albicans* and *Staphylococcus aureus* ant the patient underwent a course of antibiotic therapy with fluconazol and amoxicillin/clavulanic acid, with clinical and imagiological improvement. The excisional biopsy of the right inguinal adenopathy revealed characteristics compatible with Kaposi's Sarcoma (KS). It was started antiretroviral therapy and liposomal doxorubicin.
Discussion and Learning Points: The skin lesions of KS appear most often on the lower extremities, face and genitalia, and only about 10% of the patients have periferic adenopathic envolvement. The morphological variaty of cutaneous lesions makes more difficult the clinical diagnosis, specially in complex cases, where the diagnostic course was successively inconclusive.

 DOI: 10.12890/2022_V9Sup1

2297 / #EV0994

POEMS SYNDROME AS A RARE CAUSE OF POLYNEUROPATHY

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Case Description: We present a 83-female with history of paresthesias of lower limbs that had increased in the last month, with progressive worsening of mobility until the use of wheelchairs was required. A monoclonal IgA-lambda peak was identified in a routine analysis performed in consultation. Hospital admission was decided. We decided to continue studies with electromyogram with results of sensory-motor polyneuropathy predominantly axonal in lower limbs and Bence-Jones proteinuria and immunofluorescence in urine that was negative. In bone marrow biopsy, 8% of plasmatic cells was observed. We requested VEGF levels, which were high. In addition to this, the patient didn't have symptoms of bone pain and there weren't injuries at this level.

Clinical Hypothesis: With the described findings, it could be stated that it wasn't a multiple myeloma since the level of plasma cells required wasn't reached and that were several atypical clinical characteristics such as the absence of bone pain. Therefore, all available data were collected and it was decided to assess whether the diagnostic criteria for POEMS syndrome were met. In our patient, two mandatory criteria were present, one major criteria and three minor criteria, being compatible with the diagnosis.

Diagnostic Pathways: The diagnosis of POEMS syndrome is based on clinical, analytical and radiological criteria.

Discussion and Learning Points: There are many causes in differential diagnosis of polyneuropathy, specially polyneuropathy with predominance in lower limbs. It is necessary to correlate the clinical history with the laboratory findings to guide the adequate supplementary tests to get the correct diagnosis of POEMS syndrome, a rare disruption of monoclonal plasma cells.

2337 / #EV0995

MULTIPLE PLASMACYTOMA AS A RARE CAUSE OF SHOULDER PAIN IN A MIDDLE-AGED PATIENT

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Case Description: We present the case of a 48-year-old man who consulted due to shoulder pain after overloading. A chest x-ray is performed where a clavicle fracture is observed. To complete studies a CT scan of the chest was carried out; several lesions were observed in the sternal manubrium and D11 vertebra. Due to the latest findings, a bone scintigraphy was performed, which showed a low-uptake lesion in the manubrium (lytic lesion) and several hyper-uptake lesions in in chest and skull. Phisical examenantion was strictly normal. Blood analysis were normal. Also PSA, urine analysis, gammaglobulins were normal.

Clinical Hypothesis: We consider de folowing posibilities: hyperparathyroidism, histiocytic diseases, fibrous displasia and malignant causes such as multiple myeloma or metastases.

Diagnostic Pathways: Multiple lesions observed in the imaging test was decisive to guide the differential diagnosis. Normal values of serum calcium, urinary calcium and normal parathormone excluded a diagnosis of hyperparathyroidism. Age and the absence of alterations in gamma globulin did not pointed towards a malignan process such as Multiple myeloma. Finally, a biopsy of the lesion was performed, obtaining multiple myeloma or multiple plasmacytoma as a final result.

Discussion and Learning Points: Multiple myeloma is a malignant pathology that most frequently affects people between the ages of 60-70 years and presents with pain due to bone lesions, hypercalcemia and renal failure. Multiple plasmacytomas are treated as multiple myeloma since the risk of myeloma progression is very high. It is important to take into account the atypical presentations of this pathology and carry out a good differential diagnosis of it.

1404 / #EV0996

RECURRENT PLEURAL EFFUSION – A TRAGIC ENDING

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Case Description: An 87 year-old woman with a medical history of heart failure with mildly reduced ejection fraction was admitted with fever, dyspnea, cough and peripheral edema. She presented in anasarca, hypotensive, gasimetrically with respiratory acidemia, hypoxemia (pO2/fiO2 ratio 209) and hyperlactacidemia. Analytically with acute kidney injury and high inflammatory parameters. A chest CT revealed exuberant left pleural effusion compressing the homolateral lung and moderate on the right associated with nodularity of undetermined nature. The patient underwent septic screening and thoracentesis with collection of pleural fluid that showed characteristics of exudate. patient started empirical antibiotic therapy and diuretics.

Clinical Hypothesis: Admitted to ward with diagnosis of sepsis due to respiratory infection, decompensated heart failure with consequent pleural effusion and pulmonary nodules under study.

Diagnostic Pathways: COVID-19 screening was negative. Setptic screening was negative, namely blood cultures, uroculture, sputum culture and sputum smears. Pleural fluid cytology revealed 15 leukocytes/mm^3, ADA of 8U/L, negative cytology for neoplastic cells and negative microbiology. After the ended of course of empiric antibiotics and continuous intravenous diuretic treatment, the pleural effusion recurred and required repeated thoracentesis. Oncological screenings were negative. A pleural

 DOI: 10.12890/2022_V9Sup1

biopsy was performed and the patient was referred to palliative care. After one month, the patient presented clinical worsening with acute respiratory distress syndrome and ended up dying. Later the result of the biopsy revealed malignant pleural neoplasm. Discussion and Learning Points: Malignant pleural effusion is a common but serious condition that is related with poor quality of life, morbidity and mortality. Its management remains palliative, with median survival ranging from 3 to 12 months.

1480 / #EV0997

LUNG SQUAMOUS CELL CARCINOMA: CATASTROPHIC ENDING OF A NEGLIGENT ADDICTION

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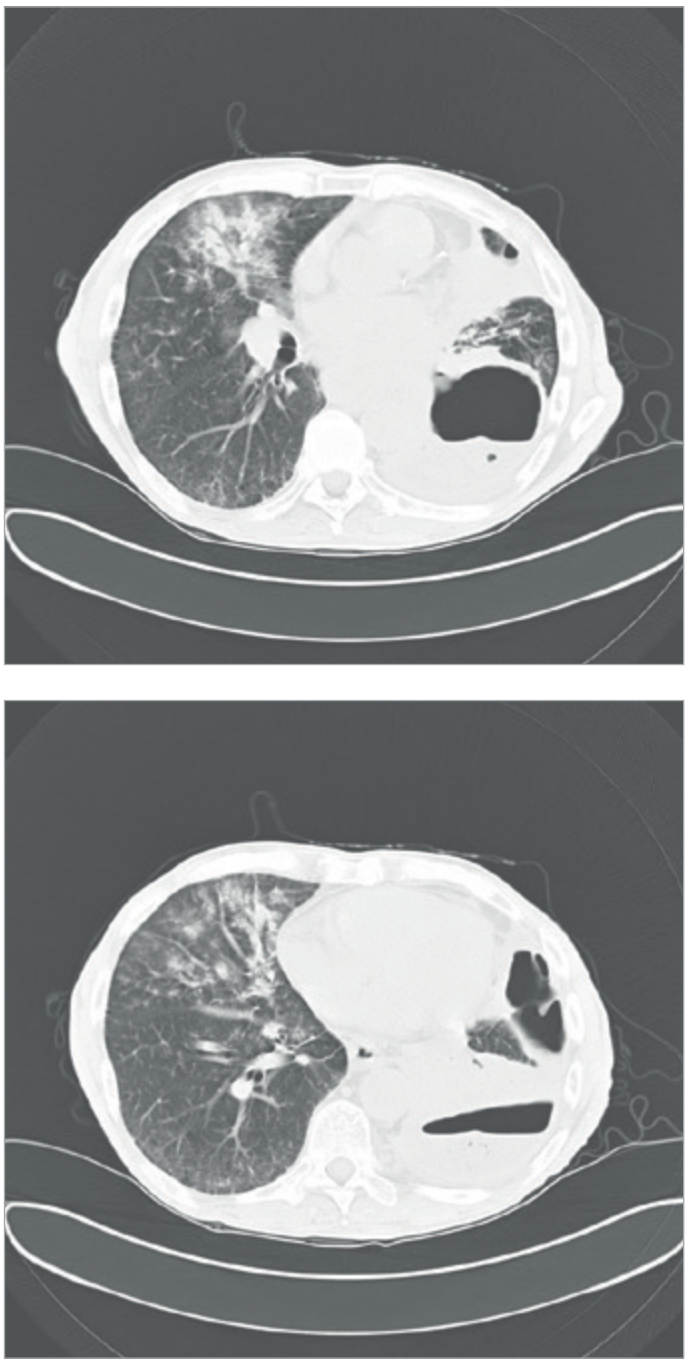
Case Description: A 67-years-old man, smoker, without medical history, was admitted for dyspnea, cough, fever and a constitutional syndrome. On physical examination, the patient was febrile with reduced vesicular breath sounds on left hemithorax. Blood gas analysis showed hyperlactacidemia (7 mmol/L) with hypoxemic respiratory failure. Laboratory findings showed leukocytosis(24400/L) and high protein-C-reactive (14.77 mg/dL). Chest CT revealed a mediastinum lateralized to the right, with total atelectasis of the left lung and large ipsilateral pleural effusion with internal gaseous foci probable necrotic etiology and a retrocardiac image showing invasion of the left auricle as well as almost total obliteration of the left pulmonary artery and bronchus.

Clinical Hypothesis: Probable lung neoplasm with mediastinal metastasization and pulmonary overinfection.

Diagnostic Pathways: A chest drain was placed and the pleural fluid revealed numerous lymphocytes and absence of malignant cells. PCR SARS-Cov-2 test was negative. Cultural and smear sputum collected on admission were negative. Bronchofibroscopy was performed and bronchoalveolar lavage was negative for microbiological and mycobacterium tuberculosis. Bronchial biopsy diagnosed epidermoid carcinoma positive for programmed death ligand-1 (PD-L1). Abdominal, pelvic and cerebral CT without evidence of metastases. The patient completed a course of empirical antibiotic therapy and was referred to Oncology.

Discussion and Learning Points: Lung squamous cell carcinoma (LSCC) is closely correlated with a history of tobacco smoking. Due to the lack of targeted therapies for LSCC and the late stage of detection, the prognosis is often poor. However, immunotherapy with antibodies to prevent the interaction of the PD-L1 with the PD-1 receptor, has dramatically improved the survival of these patients.



#EV0997 Figure 1.

2229 / #EV0998

VENOUS THROMBOEMBOLISM IN METASTATIC UTERINE LEIOMYOSARCOMA

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Case Description: A 53-year-old female with a history of metastatic uterine leiomyosarcoma (LMS) status post-hysterectomy without initiation of oncologic treatment presented to the ED complaining of generalized weakness and progressively worsening stridor for two weeks. The patient was experiencing SOB, progressively worsening dysphagia for solid foods, and hoarseness. Physical exam was

 DOI: 10.12890/2022_V9Sup1

remarkable for rhonchi on auscultation but was otherwise normal. Diagnostic imaging revealed extensive deep vein thrombosis (DVT) of the left common and external iliac veins, the superior mesenteric artery, multiple pulmonary emboli of the right pulmonary artery, several nodular lesions within the lungs, and scattered peritoneal necrotic lesions. Additionally, CT of the neck showed an exophytic mass protruding into the airway from the subglottic region and thyromegaly with bilateral thyroid lobe nodules.
Clinical Hypothesis: We report an unusual case of extensive DVT and PE secondary to metastatic uterine leiomyosarcoma (LMS) in an African American female.
Diagnostic Pathways: Clinical presentation and radiographic imaging are unable to distinguish between venous thromboembolism (VTE) and an LMS of vascular origin. This necessitates the consideration of associated tumors when evaluating a patient for suspected DVT or PE. While this is a rare case of metastatic uterine LMS with uncommon metastasis to the thyroid and extensive VTE, our patient may alternatively represent a case of LMS metastasis to the iliac veins and pulmonary arteries.
Discussion and Learning Points: The rarity of this case is rooted in the extent of the patient's DVTs and PEs secondary to hypercoagulability in metastatic cancer. Drawing from the lessons of this case should guide future clinical management regarding the care of metastatic uterine leiomyosarcoma.

1834 / #EV0999

A CASE OF BRAIN METASTASES PRESENTING A CHALLENGING DIAGNOSIS

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Case Description: 63 year-old Caucasian male, past medical history relevant for diabetes, dyslipidemia and smoking, admitted to the Internal Medicine ward after an outpatient brain MRI documented two space occupying lesions. He only reported asthenia and episodes of paresthesia and focal seizures. Physical examination was unremarkable.
Clinical Hypothesis: The main clinical hypothesis was brain metastases due to the number of lesions and its imaging characteristics. The patient underwent study for systemic malignancy.
Diagnostic Pathways: Body CT did not show any signs of neoplasia. Endoscopic studies were normal. Serum cancer biomarkers, including PSA, were negative. ^{1}F-FDG PET/CT showed radiotracer uptake in the known brain lesions. An ORL and Ophthalmology consultation was requested, and evaluation was negative for suspicious lesions. One brain lesion was surgically removed for pathology analysis, which reported a brain metastasis of small cell neuroendocrine carcinoma (SNEC). The patient was discharged and referred to Oncology for SNEC of unknown primary site. Follow up study with 68Ga-DOTATOC PET showed avid-uptake in prostate and the other brain lesion. Prostatic MRI was suggestive of neoplasia (PIRADS-5). The patient started systemic treatment for SNEC of the prostate (SNEC-P).
Discussion and Learning Points: Brain metastases are the most common intracranial tumors in adults and, even though imaging studies provide crucial information, brain biopsy might still be necessary for a definitive diagnosis, especially in cases where study for systemic malignancy is negative. SNEC-P is a rare, aggressive, androgen-independent malignancy that metastasizes early and presents with disproportionally low-serum PSA making it challenging to diagnose unless there is high clinical suspicion or a radiologic clue is present.

1836 / #EV1000

RECURRENT INTRACEREBRAL HEMORRHAGE, A CASE FOR DIFFERENTIAL DIAGNOSIS

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Case Description: 71 year-old Caucasian male, past medical history relevant for diabetes, hypertension, dyslipidemia and remote history of myocardial infarction. The patient had been admitted to the stroke unit 1.5 months before presentation for a right parieto-occipital intracerebral hemorrhage (ICH) resulting in left homonymous hemianopia. He presented to the emergency department for worsening headache. On physical examination he was confused and disoriented. Head CT showed signs of rebleeding at the location of the previous ICH.
Clinical Hypothesis: Considering the medical history and the previous negative etiological study, our main diagnostic hypothesis was recurrent ICH due to amyloid angiopathy. Still, a broad study directed towards excluding other etiologies was conducted.
Diagnostic Pathways: CT-angiography excluded underlying vascular cause. Follow-up brain MRI showed a single space occupying lesion as the cause of ICH, the nature of which was not determined due to limitations on contrast infusion. Body CT revealed multiple masses in the adrenal glands, right upper lung lobe, thoracic wall and a right kidney mass suspicious of being the primary lesion. Ultrasound-guided biopsy of the thoracic wall mass was consistent with lung adenocarcinoma, making the kidney mass a probable synchronous tumor.
Discussion and Learning Points: Brain metastases are the most frequent intracranial tumors in the adult population, causing a wide variety of symptoms and may present as headache, focal neurologic deficits, cognitive dysfunction, seizures and stroke. Stroke can be caused by hemorrhage into a metastasis, among other mechanisms, and thus bleeding brain metastases must be included in the differential diagnosis of ICH, with special attention to those that recur at the same location.

 DOI: 10.12890/2022_V9Sup1

19 / #EV1001

DIFFUSE LARGE B CELL LYMPHOMA ORIGINATING FROM THE MAXILLARY SINUS WITH SKIN METASTASIS

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Background and Aims: We recently diagnosed a case of diffuse large B cell lymphoma (DLBCL) originating from the maxillary sinus (MS) with rapidly occurrent multiple skin metastasis, after which we searched for other cases.

Methods: We reviewed the medical records at our hospital since establishment. We also performed a literature review with keywords "DLBCL," "MS," and "skin metastasis" to identify relevant studies or case reports, based on PubMed databases from January 1st, 2014 to July 31th, 2021.

Results: We found no other cases. The patient was an 81-year-old man. He visited our hospital due to continuous pain for 12 days in the left maxillary nerve area. A computed tomography (CT) scan revealed a 3 cm × 3.1 cm × 3 cm sized mass in left MS. On day 25, left diplopia and ptosis occurred, and a follow-up CT on day 31 revealed growth of the mass. Based on MS biopsy on day 50, we established a definitive diagnosis of DLBCL originating from the MS. He was admitted on day 62 due to rapid deterioration of his condition, and a CT scan revealed further growth of the mass, as well as multiple systemic metastasis, including of the skin. A skin biopsy on day 70 was found to be the same as that of the mass. We notified him and his family of the disease, and they opted for palliative care. He died on day 80.

Conclusions: We report the first known case of DLBCL originating from the MS with skin metastasis.

1981 / #EV1002

ACQUIRED HEMOLYTIC ANEMIA CHARACTERIZATION IN A PORTUGUESE INTERNAL MEDICINE DEPARTMENT

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Background and Aims: Haemolytic anemia is caused by premature destruction of red blood cells (RBCs). This study aims to analyze the incidence of hemolytic anemia, its etiologies, and evaluate the acquired hemolytic anemia patients clinical and laboratory characteristics.

Methods: A retrospective study was conducted among hospitalized patients with hemolytic anemia from August 2016 to August 2021, based on hospital records.

Results: The study comprised a total of 388 adult patients diagnosed with hemolytic anemia, with a median age of 39 years, of which 22% were men. Most common causes were Thalassemia (45,9%), Sickle-cell disorders (35,6%), Acquired hemolytic anemia (8%), Other causes (10,6%). Regarding patients admitted to the Internal Medicine Department with acquired hemolytic anemia (n=15), the median age was 75 years, being autoimmune (AIHA) (33%), microangiopathic due to valvulopathy (20%) and vitamin B12 deficiency (13%) the most frequent etiologies. Four out of five AIHA patients were associated with infection and one associated with Systemic Lupus Erythematosus, being the average hemoglobin at admission 7.1 g/dL. Four underwent corticosteroids therapy, two additional immunoglobulin and two required transfusion of RBCs. From microangiopathic patients, the average hemoglobin was 10.2 g/dL and only one patient needed transfusion. Nevertheless, the definitive treatment was valvuloplasty. Patients with autoimmune B12 deficit had an average hemoglobin of 6.1 g/dL, and both were associated with thrombocytopenia and required transfusion.

Conclusions: The main cause of acquired hemolytic anemia is autoimmune and is often associated with infection. The therapeutic approach depends on the etiology, therefore, an adequate diagnosis is crucial.

565 / #EV1003

CHRONIC COUGH AS THE ONLY SYMPTOM HERALDING A LEPIDIC-PREDOMINANT ADENOCARCINOMA OF THE LUNG

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Case Description: A 65-year-old woman, non-smoker, presented to the emergency department with irritative cough beginning 5 months earlier, with no other symptoms and already previously medicated with a corticosteroid, antihistaminic, opioid and

 DOI: 10.12890/2022_V9Sup1

proton pump inhibitor without any effect. Pulmonary auscultation revealed crackles in the right hemithorax, with no other findings on physical exam.
Clinical Hypothesis: Post-nasal drip, asthma, gastroesophageal reflux, adverse effect of drugs, heart failure, lung tumor, interstitial lung disease.
Diagnostic Pathways: Erythrocyte sedimentation rate was 47 mm, C-reactive protein 4.34 mg/dL and serum protein electrophoresis showed an inflammatory pattern. Chest radiograph showed only a right peri-hilar infiltrate, but a computerized tomography scan revealed a pattern of nodular and diffuse, bilateral septal thickening, more prominent at the right superior lobe, with ground-glass opacities and alveolar consolidation. Bronchial fibroscopy showed mucosal changes of the right main bronchus. Mucosal and transbronchial lung biopsies were made, diagnosing a lepidic-predominant adenocarcinoma of the lung, with bronchial infiltration.
Discussion and Learning Points: Cough is defined as chronic when it persists for more than 8 weeks. We present a case where the diagnostic workup of chronic cough led to the diagnosis of lung adenocarcinoma, highlighting the importance of an exhaustive investigation of chronic cough and the inclusion of this entity on the list of differential diagnosis. We also underline the absence of any other symptom, despite having a lung tumor.

533 / #EV1004

ATYPICAL CASE OF LOW-GRADE FOLLICULAR LYMPHOMA

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Case Description: Follicular lymphoma (FL) is the second most common subtype of Non-Hodgkin's Lymphoma. It usually presents in middle or advanced aged individuals with risk factors, including exposure to chemical products. This case addresses a 36 years old male, without relevant health background, working at a factory with exposure to hypochlorite, phenols and sulfuric acid, without consistent use of a face mask. The patient resorts to the emergency department with a week-long irritative cough associated with vomit and night sweats. Objectively he was febrile and tachycardic.
Clinical Hypothesis: The hypothesis were infectious, inflammatory or neoplasic condition.
Diagnostic Pathways: Of the subsequent study, to highlight leukocytosis, elevated C-reactive protein and right pleural effusion on the chest X-ray. The thoracoabdominal computed tomography scans revealed pericardial and right pleural effusions, mediastinal adenopathies and adenopathic conglomerates in mesentery and lumboaortic chain, suggesting lymphoproliferative disease. Infectious and inflammatory etiology were excluded. The serum immunophenotyping was inconclusive. He undergone a laparoscopic abdominal lymph node biopsy, which confirmed the diagnosis of low-grade FL (LGFL).
Discussion and Learning Points: This case reports the appearance of LGFL in a young age individual, whose only risk factor was his exposure to chemical substances at the work place. The authors draw attention to the diagnostic challenge when presented with less frequent types of neoplasm.

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1195 / #EV1005

A CASE OF HEMOLYTIC ANAEMIA

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Case Description: Hemolytic anemia is characterized by shortened survival of circulating red blood cells (RBCs) due to their premature destruction. Causes include immune-mediated, genetic among others and can vary between acute and chronic processes with mild to potentially life-threatening severity. A 72 year old woman, without relevant personal or familiar medical history was admitted to the emergency room after an episode of lipothymia with nausea, abdominal pain and dark urine.
Clinical Hypothesis: Laboratory analysis showed haemolytic anaemia with Hb 10.8g/dL; low haptoglobin (<30 mg/dL); indirect hyperbilirubinemia (total bilirubin 10.8 mg/dL and direct bilirubin 0.69 mg/dL); elevated lactate dehydrogenase; haematuria; direct and indirect Coombs were negative.
Diagnostic Pathways: Peripheral blood smear was negative for falciform cells. Imaging with toraco-abdominal-pelvic computerized tomography showed no alterations. Autoimmune studies and infectious serologies (HIV, HCV, HBV) showed no alteration. Further exploration of clinical history clarified that the symptoms started after ingestion of fava beans days before admission. Measurement of Glucose-6-phosphate dehydrogenase (G6PD) was required because of the new data - a deficiency of G6PD (4.2 U/g Hb) was confirmed.
Discussion and Learning Points: Although G6PD deficiency is one of the most common enzymatic disorders of RBC (as a result of sporadic mutation or inherited X-linked disorder), it has low prevalence (0.51%) in Portugal . This case illustrates that genetic disorders are not always a pediatric diagnosis, and are often asymptomatic until a stress factor precipitates hemolysis. There is no targeted treatment, and control of the disease requires eviction of drugs and foods known to precipitate crysis.

 DOI: 10.12890/2022_V9Sup1

2523 / #EV1006

NEUROLOGIC SYMPTOMS AS PRESENTATION OF ADRENAL LYMPHOMA

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Case Description: A 71-year-old male with hypertension, previously smoker and with lesser right limb palsy due to childhood polio was admitted at hospital because of vertigo and dizziness during 2 weeks, as well as nausea and vomiting, binocular diplopia and 5 kilograms weight loss. No other symptoms were referred. At emergency departement, patien had no fever, with 72 beats per minute and 113/74 mmHg. He was very symptomatic, unable to walk and with upper left limb dysmetria. The rest of physical examination was normal. Brain CT was normal. Chest radiography had no significant findings. Hemoglobin was 17 g/dL with the rest of laboratory phindings normal. Response to diazepam and sulpiride was not satisfactory so he was admitted at Internal Medicine hospitalization to complete the study.
Clinical Hypothesis: Since patient had neurologic symptoms with neurologic examination alteration, a central nervous system lesion was suspected. Magnetic resonance of the brain was performed and a perventricular mass was found at left hemisphere of the cerebelus. Little nodular lesions were found through the surface of lateral ventricles and one more at tuber cinereum. Differential diagnosis was central nervous system lymphoma or inflamatory or granulomatous diseases.
Diagnostic Pathways: As oncologic or inflamatory disease was suspected, PET-CT was performed, leading to bilateral adrenal masses with intense contrast captation. Fine needle biopsy was performed and finally, adrenal lymphoma was diagnosed.
Discussion and Learning Points: Adrenal lymphomas are rare and it is usually diagnosed because of local abdominal symptoms although it is also able to metastasize and mimic neurologic conditions.

927 / #EV1007

IMPORTANCE OF THE RAPID DIAGNOSTIC UNITS OF INTERNAL MEDICINE IN THE STUDY OF THE PATIENT WITH ANEMIA

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Background and Aims: To describe the characteristics of patients with anemia referred to a Rapid Diagnosis Unit (RDU) and to analyze the usefulness of RDU in the study of these patients.
Methods: Observational, descriptive and retrospective study of 9090 patients reviewed on RDU from 2008 to 2020. The variables anemia, sex, need for admission and diagnosis of cancer were considered. Bivariate analysis is used to compare means or medians. Qualitative variables are described as absolute number and percentage; those are compared with Chi-Square test. In the hypothesis tests, the null hypothesis was rejected with a type I error or α error less than 0.05.
Results: Of a total of 9090 patients, 935 had anemia (10.3%). Patients with anemia were referred from Primary Care (57.6%), Emergencies (26.1%) and Specialized Care (15.9%). 22.9% of the patients with anemia had a final diagnosis of cancer:201 patients with 1 cancer, 12 with 2, and 1 with 3 (Table).
Conclusions: Anemia could be a sign of presentation for malignancy, so recognizing its cause is essential to carry out the therapeutic interventions to improve the quality of life and survival of the patients. Although severe anemia and cachexia are the main disorders to be admitted, the experience shows that patients with potentially serious diseases could be treated in a similar way in RDU with significant financial savings and a high degree of satisfaction expressed by users in different surveys. The study shows that a high percentage of patients treated for anemia are finally diagnosed with cancer; therefore, a correct outpatient management in a RDU could avoid unnecessary admissions.

	With anemia	Without anemia	Total	Statistical significance
Patients	935 (10,3%)	8155 (89,7%)	9090	
Sex Female	514 (55%)	4069 (49,9%)	4583 (50,4%)	<0,05
Age*	70,8 ± 15,5 años	60,9 ± 19,1 años	61,9 ± 19 años	<0,05
Admissions	31 (3,3%)	362 (4,4%)	393 (4,3%)	0,110
Neoplasm	214 (22,9%)	1458 (17,9%)	1672 (18,4%)	<0,05
Diagnostic delay**	14 ± 22 días	14 ± 11 días	14 ± 11 días	0,05

*Mean ± standard desviation. **Median ± interquartile range

#EV1007 Table 1.

1820 / #EV1008

EXTREME HYPERCALCEMIA DUE TO ADULT T-CELL LEUKEMIA-LYMPHOMA: A CASE REPORT

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Case Description: A 37-year-old man originating from Sri Lanka and working in Israel presented to the emergency room with severe and sudden-onset back pain. He complained of malaise and fatigue in the preceding 3 days. On examination, he was neurologically alert with normal vital signs and firm, immovable 1.5cm bilateral inguinal lymph nodes were palpated. Initial blood testing revealed hypercalcemia of 22.3 mg/dl and ECG displayed a shortened QTc interval of 0.302 sec.
Clinical Hypothesis: Hypercalcemia due to parathyroid carcinoma or hypercalcemia of malignancy was suspected.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: PTH levels were undetectable. No evidence of toxic substance ingestion was found in blood and urine. Vitamin D and angiotensin converting enzyme levels were normal. A total body computerized tomography (CT) and ultrasound (US) revealed “”no pathological findings””. Despite the lack of radiological evidence of malignancy, excisional lymph node biopsy was performed and was diagnostic for adult T cell leukemia-lymphoma. Serological testing for human T cell lymphotropic virus-type 1 (HTLV-1) returned positive. Treatment with chemotherapy was initiated but the patient succumbed to the disease 18 months later.
Discussion and Learning Points: We describe a case of extreme hypercalcemia with minor neurological signs and without radiological clear-cut evidence of malignancy. HTLV-1 infection is very rare in our country, which made the diagnosis of adult T cell leukemia-lymphoma in our patient more challenging. Despite the advance in diagnostic imaging techniques, a thorough physical examination is still an essence of clinical practice.

1842 / #EV1009

THE SEVERITY OF HYPERCALCEMIA IN HOSPITALIZED PATIENTS MAY BE ASSOCIATED WITH INCREASED MORTALITY

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Background and Aims: Hypercalcemia in hospitalized patients is considered an unfavourable prognostic factor. However, the relation between serum calcium levels and mortality has not been adequately studied. We aimed to determine the relationship between admission serum calcium levels and mortality among patients hospitalized with hypercalcemia.
Methods: We conducted a retrospective cohort study of 370 adults hospitalized at Carmel Medical Center with hypercalcemia between January 2004 and July 2018. Admission serum calcium was categorized based on severity: 10.6 - 11.5 (mild), 11.6 - 12.5 (moderate) and 12.6 mg/dl or above (severe).
Results: 109 (29.4%), 92 (24.8%) and 169 (45.6%) of patients were defined with mild, moderate and severe hypercalcemia, respectively. In-hospital mortality rates among patients with mild, moderate and severe hypercalcemia were 3.4%, 14.1% and 18.3%, respectively. The risk of in-hospital mortality was increased in moderate and severe hypercalcemia compared to mild hypercalcemia (OR 4.3 CI 95%; 1.36-13.7 and OR 5.9 (CI 95%; 2.02-17.2, respectively). Six-month mortality was 35.8%, 45.7% and 52.1% in mild, moderate and severe hypercalcemia, respectively. Patients with severe hypercalcemia were at increased risk of 6-month mortality (OR 1.95 CI 95%; 1.19-3.2).
Conclusions: The severity of hypercalcemia appears to correlate with the risk of death among hospitalized patients. In-hospital and 6-month mortality is increased in patients admitted with higher serum calcium levels. Severity of hypercalcemia may be utilized as an important prognostic factor.

 DOI: 10.12890/2022_V9Sup1

AS12. ORGANIZATION AND QUALITY OF HEALTH CARE

1340 / #EV1010

LARGE LENGTH OF STAY: WHY?

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Background and Aims: With the recent enhanced efforts to decrease length of stay (LS) for hospitalized patients, a reasonable concern about this subject has been raised. This study aims to emphasize the value of a full patient assessment on admission including physical function, cognition, social support, living situation and advance directives, since a person's functional status at admission correlates to their risk of adverse events that may lead to larger LS, readmission and even death.

Methods: We overviewed a convenience sample of 154 admissions to an inpatient ward of internal medicine during 2020, assessing LS, patient's sociodemographic characteristics and clinical data retrieved from hospital records.

Results: Our sample consisted of patients with a median age of 82 years, predominantly females (56.5%) and a median (variance) LS of 8 (73.5) days. LS was found to be significantly different in subgroups of provenience (p=0.01), as institutionalized patients had more prolonged hospitalizations (median of 10 vs 7 days). That difference was not found between subgroups of sex, age or functional status, with consistent subgroup median of 8 days. Through logistic regression, patients with an infectious complication during hospitalization had 8 times a higher chance of prolonged hospitalizations CI95% (3.1;26.0) when data was adjusted for provenience.

Conclusions: It seems that institutionalization and nosocomial infections may be correlated and together contributes to a larger LS. This is an important and urgent matter that requires our attention as physicians and preventive specific adverse outcomes strategies should be a priority.

930 / #EV1011

CULTURAL COMPETENCY – A PILOT STUDY Z. SACHLA, K. EFSTATHIOU, A.PAPADIMOS,D FOUTSITSAKIS V. TSOUTSOULI, DEPARTMENT OF INTERNAL MEDICINE, GENERAL HOSPITAL OF THESSALONIKI "GEORGIOS PAPANIKOLAOU"

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Background and Aims: Cultural competency is a common set of behavior and policies that exist amongst professionals and enables them to work effectively in cross-cultural situations. Currently it has become a much-needed aspect in the workspace of healthcare professionals. The aim of this study is to determine the cultural competency of the medical staff in the hospitals of Greece by assessing their behavior towards Muslim patients.

Methods: We created two questionnaires that were handed out to the medical staff of the General Hospital of Thessaloniki "Georgios Papanikolaou". The first questionnaire included five multiple choice questions regarding the way Muslims patients were treated by the medical professionals. The second questionnaire was comprised of three multiple choice questions and one open-ended question testing the staff's background on Islamic culture and tradition.

Results: Regarding the first questionnaire the majority seems to accept the importance of cultural competency in the workplace, although it is uncertain whether the hospital effectively addresses the particularities of Muslim patients or not. Of the people that completed the second questionnaire most of them answered only one question out of three correctly, although only a few are opposed to the existence of places of worship in the hospitals in the Muslim-rich regions of Greece.

Conclusions: The self-assessment suggests that the medical staff is culturally competent but the results of the second questionnaire highlights their lack of information about Islamic culture. It is worth noting that the current study lacks sample size and it should be repeated with a greater number of participants and hospitals.

2621 / #EV1012

 DOI: 10.12890/2022_V9Sup1

IN SITU SIMULATION IN INTERNAL MEDICINE: TRAINING TEAMS TO IMPROVE PATIENT SAFETY IN INTERNAL MEDICINE HOSPITALIZATION

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Background and Aims: The objectives of this study is: 1) to establish an innovative project in the Internal Medicine (IM) Unit of the Alcorcón Foundation University Hospital (HUFA) through the training of multiprofessional teams with in situ simulation (ISS). 2) Improve patient safety in emergency situations in hospitalization practicing non-technical skills: teamwork and interprofessional communication.

Methods: The ISS team included 2 physician and 1 nurse instructors. Simulation sessions developed in standard rooms. The case was created using aggregate data from previous critically ill patients. After each session, a physician member of the ISS team facilitated a 15-min debriefing session. This study planned to provide one session per week. Each participant completed a survey of the simulation.

Results: A multiprofessional working established the call flow diagram in an emergency situation and defined the roles distribution. This was further followed by six briefings, about the role of simulation and patient safety. 10 one-hour in-situ simulation workshops are held, followed by debriefing. In each scenario, 2 doctors, 2 nurses, 2 clinical assistants and 2 residents participate. In total, 82 professionals were trained. 80 participants completed the survey: 95% considered the simulation to be very useful, 97.5% the distribution of roles simplifies the work in the emergencies department, 94% help with teamwork, 91% simulation increases patient safety.

Conclusions: ISS has shown its relevance in the evaluation of response in a vital emergency and the definition of roles, as well as the improving of teamwork and effective communication. Furthermore, it increases patient safety on the internal medicine hospitalization department.

1748 / #EV1013

EVALUATION OF PREMATURE MORTALITY IN MOSCOW IN 2018

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Background and Aims: To estimate premature losses in Moscow in 2018.

Methods: Analysis was based on the "Brief Nomenclature of causes of death" and performed in people aged 15-72 years. The data was obtained upon request to Federal State Statistics Service; the calculations were conducted using the software developed by the National Medical Research Center for Therapy and Preventive Medicine. Potential years of life lost (PYLL) was calculated by formula PYLL=∑Di×ai where "Di" is the absolute number of deaths for the age interval "i"; "ai" is the number of unliven years.

Results: The premature mortality in Moscow was 8375.78 per 100 000 people. PYLL in males was 2.57-fold higher than in females (9672.12 vs 3749.40). PYLL rate due to diseases was 2489.91 (78%), external causes of death - 1191.54 (14%). Analysis by groups of diseases showed that the leading causes of PYLL were circulatory system diseases (CSD) – 2873.50 (34.3%), malignant neoplasms (MN) – 1712.14 (20.4%) and external causes – 1468.49 (17.5%). Three leading causes accounted for 72.3% of all losses. The leading causes of PYLL in males were CSD (37.1%), external causes (20.3%), MN (14.9%). The structure of losses in females was different compared with males: MN (32.6%), CSD (28.2%), external causes (11.3%).

Conclusions: The main losses were due to diseases, although the contribution of the external causes was also significant. The highest PYLL was due to CSD, especially in male population. The main cause of PYLL in female population were MN because of the high PYLL rate due to breast cancer.

2614 / #EV1014

COVID-19 OUTBREAK INVESTIGATION AMONG HEALTHCARE WORKERS IN A LOW-RISK MEDICAL AREA OF A TERTIARY CARE HOSPITAL

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Background and Aims: The occurrence of COVID-19 outbreaks is rare in low-risk hospital areas. We present an outbreak investigation report from a low-risk medical ward and the factors associated with the outbreak.

Methods: Outbreak investigation in a cross-sectional design was conducted from 16th to 30th April 2020 in two adjacent low-risk medical areas of a private tertiary care hospital reserved for patients who were screened negative based on symptoms or using RT PCR test. All Healthcare workers (HCWs) except those on leaves were included from both areas. The basic steps of epidemiologic field investigations as set by the Center of Disease control and prevention (CDC) were adapted for investigation and associated factors for hospital outbreaks were investigated. The attack rate was calculated, and an epidemiological curve was plotted.

Results: 20 HCWs tested positive for COVID-19 out of 166 giving an attack rate of 12%. The Majority were registered nurses (n=15). The origin of the outbreak is presumed from the secondary ward

 DOI: 10.12890/2022_V9Sup1

where two HCWs reported infection while three patients tested positive around the same time in both wards. Lack of physical distancing and taking meals (n=18 each) and suboptimal use of personal protective equipment (PPE) were risk factors for COVID-19 transmission.
Conclusions: This COVID-19 outbreak investigation reports an attack rate of 12% from a low-risk medical unit. The outbreak's likely origin was from patients who were admitted with other medical or surgical conditions and further triggered by suboptimal PPE practice and lack of physical distancing in HCWs.

163 / #EV1015

THE ROLE OF POINT-OF-CARE C-REACTIVE PROTEIN TESTING IN ANTIBIOTIC PRESCRIBING FOR RESPIRATORY TRACT INFECTIONS IN SWISS PRIMARY CARE

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Background and Aims: Respiratory tract infections (RTIs) are the most common reason for inappropriate antibiotic prescribing in primary care, a key driver of antibiotic resistance (ABR). Little is known about how Swiss general practitioners (GPs) inform their decision-making for RTIs. We aimed to explore the role of C-reactive protein (CRP) point-of-care testing (POCT) on antibiotic prescribing decision-making for RTIs; and the knowledge, attitudes and perceived barriers and facilitators of antibiotic prescribing and ABR.
Methods: Prospective, structured and self-administered web-based survey integrating four disease-specific case vignettes.
Results: GPs (N=169) extensively perform diagnostic procedures to manage RTIs, most commonly CRP-POCT alone or combined with other diagnostics. GPs' interpretation of CRP-POCT depends on patients' characteristics and disease severity. They use lower CRP cut-off thresholds for (more) severe RTIs, and commonly prescribe amoxicillin/clavulanic acid if CRP-POCT results are above their prescribing cut-off. For CRP-POCT results with intermediate ranges, GPs perform short-term (3-5 days) follow-up rather than delayed prescribing, more frequently for (more) severe RTIs. GPs (N=158) generally have good knowledge and awareness of antibiotic use, but awareness of the ABR concept may be limited. Patient pressure, fear of complications, lack of knowledge/understanding of ABR, and diagnostic uncertainty are the most common GP-reported barriers to (appropriate) antibiotic prescribing (N=154).
Conclusions: CRP-guided antibiotic treatment and delayed prescribing could be further optimized in clinical recommendations to improve prescribing decisions. Future antibiotic stewardship interventions need to focus on improving GPs' awareness of ABR and addressing the GP-reported barriers and facilitators to behaviour change.

770 / #EV1016

EVERY CLOUD HAS A SILVER LINING

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Case Description: SARS-CoV-2 pandemic has forced the need for a change of paradigm in internal medicine daily routine. Internists acquired the responsibility to captain a multidisciplinary group in less than 24h and had to maintain this atypical way of working during the peak of incidence on the first wave. The team was formed by a leader (the internist) and two doctors of medical or surgical specialties.
Clinical Hypothesis: This routine highlighted the feeling of higher control and gave a general vision of our medical ward.
Diagnostic Pathways: We visited 15 patients a day jointly. Treatment and important decisions were taken by the leader, who also had the responsibility to keep updated the rest of the group regarding the protocols, transmit the notable information of any kind, and be the interlocutor with intensive care, infectious diseases and palliatives care units. The rest of the members wrote the evolving and informed their relatives. The team work not only had implications with the physicians but also implied a general round with nurses. All patients were discussed, the plans and the limiting efforts were established. Complex patients were discussed once or twice a week with the leaders of each war and infectious diseases, palliative and intensive care units.
Discussion and Learning Points: Although the global situation has been devastating at many levels, the general assessment of our routines has been excellent in terms of personal satisfaction and has permitted us to establish ties with other specialists/nurses and also showed us another way of working that maybe can be applied in the future.

191 / #EV1017

ASSESSING THE POTENTIAL BARRIERS TO IMPLEMENTATION AND LIMITATIONS TO USE OF TREATMENT ESCALATION PLANS (TEPS)

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Background and Aims: Treatment escalation plans are a communication tool designed for use in hospitals to aid communication between patients, families, and medical staff, to plan for ongoing medical treatment in patients who are critically unwell or have the potential to rapidly deteriorate. The aim of the present report was to understand and identify the potential

 DOI: 10.12890/2022_V9Sup1

limitations, and subsequent barriers to TEP form use and implementation within a local hospital.
Methods: A questionnaire was designed following a focus group session to identify key issues. The questionnaire included 22 questions specific to TEP use by healthcare staff members. Data was collected over a period of three weeks, then analysed using excel.
Results: We sampled 23 healthcare staff members (n=4 foundation doctors, n=6 junior middle grade doctors, n=5 senior middle grade doctors, n=6 consultants, n=1 GPs and n=1 nurses). 96% had an understanding of TEP forms and 70% used them daily or weekly. 100% believed that at least half of patients in hospital require a TEP form. Challenges identified included time constraints (n=12), difficulty initiating the discussion with patients (n=8), lack of education for patients (n=7), and staff (n=5).
Conclusions: Recommendations to improve these barriers and improve the use of TEP forms include: formal training for staff, formal information provision on TEPs for patients and their families. To improve access to TEP forms suggestions included having a shared TEP/ACP on electronic data system, discussing TEP status at handover, or a 'sticker' on their notes/ward watcher

1655 / #EV1018

THE MOST COMMON ADMISSION DIAGNOSIS IN INTERNAL MEDICINE WARD REFLECTS THE HOSPITAL'S DEPARTMENTS ORGANIZATION

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Background and Aims: The authors present the data collected during the year of 2018, regarding patients main admission diagnosis in an internal medicine ward. One wouldn't find surprising that cerebrovascular diseases might be the main diagnosis due to the elevated prevalence of these diseases in the western world, but when comparing it to other hospitals in the same country, there're differences explained by how hospital's departments are organized, raising the question: How analyzing hospital's department organization benefits patient care?
Methods: Patients hospitalized in an internal medicine ward under the care of a single doctor, from January 1st to December 31st in 2018, in a district hospital were inserted into a database, evaluated for age, sex, mortality rate, length of hospital stay, admission diagnosis and secondary diagnosis. Regarding the main admission diagnosis, results were compared with previous databasis in that hospital and with results published by another hospital center.
Results: 158 patients admitted. The main diagnosis of admission belonged to the nosological group of the circulatory system (n=48) with the prevalence of acute stroke (n=28). In second, respiratory tract diseases (n=40), predominantly, pneumonia (n=25).
Conclusions: In some wards the main diagnosis of admission is pneumonia, in the authors case, due to the lack of a stroke unit and a rather small neurology ward in comparison to central hospitals, it's acute stroke. Different hosptial organization causes function limitations. Efforts must be made to equip existing departments for their specific needs and train health care professionals accordingly. This would have a positive impact in terms of resources management and benefit overall patient care.

339 / #EV1019

FREQUENCY, DISTRIBUTION AND PRIORITIZATION OF INTERCONSULTATIONS TO AN INTERNAL MEDICINE SERVICE

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Background and Aims: Our objective was to know the behavior of the interconsultations requested to Internal Medicine regarding their frequency, distribution and priority throughout the year 2017.
Methods: Descriptive observational study that collects the interconsultations of the year 2017 made to the Internal Medicine service, from which the various variables analyzed are assessed retrospectively and with the help of the clinical history.
Results: Our service received 334 interconsultations. Regarding priority, 154 were classified as "urgent"" 8 as "very preferential". 41 as "preferential" and 88 as "normal" (in 38 it was not specified). By services, Traumatology performed 122, followed by General Surgery and Digestive System with 57, Digestive with 40, Psychiatry with 21, Cardiology with 20, Neurology with 17, Gynecology with 14, Otolaryngology with 11, Hematology and Urology with 7, Pneumology with 6, among others. Regarding the distribution by months, the month with the most interconsultations received were January and June with 36, being significantly lower in the month of August with only 14. Regarding the distribution according to the day of the week, Monday was the day with significantly higher number of interconsultations with 83, with a very similar number from Tuesday to Friday (between 60 and 65 each day).
Conclusions: The workload generated by interconsultations is considerable. Mondays is the day with the highest workload as a result of them. Surgical services perform more interconsultations than clinical services. Most interconsultations are prioritized as urgent, so the speed in answering them is an additional burden on their frequency and distribution.

 DOI: 10.12890/2022_V9Sup1

955 / #EV1020

THE HUN IS AT THE GATE EMOTIONAL DISTRESS AMONG FEMALE AND MALE PHYSICIANS ON THE BRINK OF THE COVID-19 OUTBREAK IN ISRAEL.

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Background and Aims: Despite vaccinations the COVID-19 pandemic spreads, and hospitals worldwide face the prospect of overwhelming workload and the threat of healthcare - personnel contagion. The aim of the current study was to investigate levels of psychological distress among physicians on the brink of the local COVID-19 outbreak and to identify modifiable and non-modifiable risk factors.

Methods: A cross-sectional mental - health survey was performed among Israeli physicians. Anxiety, depression and burnout were assessed using the validated Patient Health Questionnaire (PHQ-9), Generalized Anxiety Disorder (GAD-7), and Shirom-Melamed Burnout questionnaires respectively.

Results: High levels of moderate-to-severe anxiety, depression and burnout were detected (18%, 14% and 31% respectively), with significantly increased levels among female physicians, residents and internists. Internal medicine residents demonstrate the highest anxiety, with burnout the most prominent independent risk factor for anxiety Concern for 'physician's parents health' was the leading source for anxiety. Confidence in the health system and COVID-19 - related skills and knowledge were protective. Female doctors reported significantly lower confidence in their corona related skill and knowledge

Conclusions: Israeli physicians facing the prospect of dealing with the COVID-19 pandemic on the frontlines may suffer from high levels of anxiety and depression, which may be worse among those starting out with significant burnout. Targeted interventions can help decrease anxiety and should be implemented early.

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DEXAMETHASONE-RELATED HYPERGLYCAEMIA IN COVID-19

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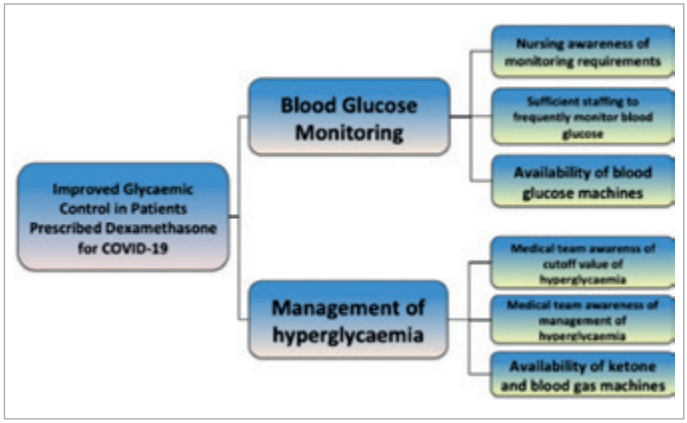
Background and Aims: According to UK guidelines, all patients receiving dexamethasone for COVID-19 should receive 6-hourly capillary blood glucose (CBG) monitoring for 48 hours to prevent hyperglycaemic complications. CBG values >12mmol/L require administration of rapid-acting insulin, venous blood gas (VBG) and ketone measurement. Staff knowledge of guidelines is critical to their implementation (Figure 1). Aims: 1. Audit monitoring and management of dexamethasone-related hyperglycaemia in COVID-19 against national standards 2. Assess and improve staff awareness of guidelines

Methods: Data from patients >18 years with COVID-19 receiving dexamethasone outside ICU 11/1/21 - 15/1/21 was collected from electronic records. A questionnaire assessed staff knowledge. A teaching program was implemented alongside poster campaigns and recruitment of ward champions. The questionnaire was then repeated.

Results: 30 patients were included. 3/30 (10%) had CBG monitoring 6-hourly for 48 hours. 9/30 (30%) developed CBG levels >12mmol/L. Within 6 hours of this result, 3/9 (33%) underwent a VBG, 1/9 (11%) had ketones measured and 1/9 (11%) received rapid acting insulin. Twenty members of staff (10 doctors, 10 nurses) completed the first survey; sixteen (11 doctors, 5 nurses) completed the second. Improvements were seen in guideline awareness (50% to 75%), knowledge of monitoring frequency (15% to 69%) and the CBG level requiring action (5% to 56%). Before intervention, none named the required interventions; afterwards 69% identified at least one and 19% knew all three.

Conclusions: Adherence to guidance was low due to poor awareness of national standards. Educational interventions improved staff knowledge and preparedness for future waves of COVID-19.



#EV1021 Figure 1.

 DOI: 10.12890/2022_V9Sup1

183 / #EV1022

THE CHALLENGE OF INTEGRATING EHEALTH INTO HEALTHCARE; A SYSTEMATIC LITERATURE REVIEW ON THE DONABEDIAN MODEL OF STRUCTURE, PROCESS AND OUTCOME

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Background and Aims: Integration of eHealth into regular healthcare is challenging. It requires organisations to change the way they work. The organisation's structure and processes need to be adapted to ensure that eHealth supports the attainment of the desired outcomes. This study aimed to investigate whether there are identifiable indicators in the structure, process and outcome categories related to a successful integration of eHealth in regular healthcare, and to investigate which indicators of structure and process are related to outcome indicators.

Methods: A systematic literature review was conducted, using Donabedian's Structure-Process-Outcome (SPO) framework, to identify indicators related to the integration of eHealth into healthcare organisations. The indicators were organised into themes and subthemes of the SPO categories.

Results: 11 studies were included. Themes with the most-noted indicators and their mutual interaction were inner setting, care receiver and technology, in the structure category, the healthcare actions theme in the process category and the efficiency theme in the outcome category. The four most-reported indicators were 'deployment of human resources' of inner setting theme in structure, the 'ease of use' and 'technical issue' indicators, both in technology theme within structure, and 'health logistics' indicator in efficiency theme within outcome.

Conclusions: Three principles are important for successful integration of eHealth into healthcare. First, the role of the care receiver needs to be incorporated into the organisational structure and care process. Second, the technology must be well attuned to the organisational structure and care process. Third, the deployment of human resources in the care processes needs to be aligned with the desired end results.

1145 / #EV1023

CLINICAL AND COST OUTCOMES OF THE COMPLEX CARE HUB – A CANADIAN-BASED HOSPITAL-AT-HOME PROGRAM

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Background and Aims: Hospital-at-Home (HAH) is internationally recognized as a safe and cost-effective alternative to conventional hospitalization. However, there is a paucity of Canadian HAH studies, particularly for a general medical population with complex comorbidities. The Complex Care Hub (CCH) is a unique HAH program run by General Internal Medicine physicians in collaboration with Community Paramedics and Nurse Navigators from Transition Services. CCH provides acute care to patients in their homes with an aim to reduce in-hospital length of stay, while improving patient experience and outcomes. This program is unique in that daily care consists of a hybrid of virtual physician-patient visits (leveraging digital remote patient monitoring), Community paramedic home visits with medication administration and phlebotomy with remote consultation to CCH physicians. Nurse Navigators assist with case management and complex care planning. Aims:The aim of the study is to evaluate the Complex Care Hub program impact on patient outcomes and health care costs compared to conventional hospitalization.

Methods: This retrospective propensity score-matched control study will compare patient outcomes (mortality, health related quality of life), healthcare utilization (hospital length of stay, days at home, readmission rates, unplanned ED visits) and cost of CCH care versus conventional hospitalization.

Results: Preliminary CCH data suggests this model is safe, with excellent patient, caregiver and provider experience. The results of the retrospectvie matched-control study will be available by Feb 2022.

Conclusions: The Complex Care Hub is a unique viable alternative to conventional hospitalization and the results will inform policy-makers and healthcare leaders on the cost-effectiveness of this model.

 DOI: 10.12890/2022_V9Sup1

AS13. PALLIATIVE CARE

197 / #EV1024

TYPE OF HOSPITAL ADMISSION, ROUTE OF ADMINISTRATION OF OPIODS AND USE OF INVASIVE TECHNIQUES IN SITUATION OF LAST DAYS IN A REGIONAL HOSPITAL.

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Background and Aims: Description of the form of admission, invasive techniques, adjuvant treatment and type of route of administration of opioids during the last 72 hours of hospitalization of palliative patients

Methods: Sample of 89 patients in the period of November 2016-December 2017, admitted to Internal Medicine who died in the hospital. A retrospective descriptive study, with information obtained from the registry of medical records, in the last 72 hours of life. The form of admission, administration of opioids, sedatives and invasive techniques used.

Results: Of the 89 patients, 26 were oncological palliative (OP) and 63 non-oncological palliative (NOP) .51 were women and 38 men. Average age 79.7 years. 76.9% of OPs were admitted from the emergency room and 23.1% were admitted programmed; 100% of the NOPs were admitted from the emergency room. Of the OPs, 5% had a catheter bladder and 3% nasogastric tube; while in NOP 28% and 3% respectively. The most frequent administration of opioids was prescribed intravenous morphine (46.1% of the POs and 20.8% of the PNO); and rescue intravenous morphine (19.2% of OPs and 47.6% of NOPs) .Oral morphine was only used in 3.8% of OPs and 1.6% of NOPs. Transdermal fentanyl was used in 3.8% of OPs and 3.2% Regarding the use of sedatives, 42% of benzodiazepines and 8% of neuroleptics in the OPs; and in the NOP 24% and 10% respectively.

Conclusions: Interdisciplinary communication channels must be improved to facilitate the admission of palliative patients. Encourage the use of opioids on a scheduled basis, rather than on demand.

701 / #EV1025

BASELINE ASSESSMENT AND DECISION MAKING IN CARDIOPULMONARY RESUSCITATION

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Background and Aims: To perform a descriptive analysis of the collection of baseline status (BS) and medical orders on cardiopulmonary resuscitation (CPR) in patients requiring admission to Internal Medicine (IM).

Methods: Retrospective study of 304 patients admitted to IM in September 2019.

Results: A cohort of 304 patients was analysed, with a mean age of 70 years and an age range between 15 and 102 years. The sex distribution was 176 males (58%) and 128 females (42%). The mean length of stay in these patients was 11 days. The death rate was 2% (8/304). Baseline status (BS) was collected for up to 116 patients (38%), with a mean age of 77 and mean length of stay of 9.1 days; 52% were males and 48% (56) were females. Among the deaths, 25% (2/8) had BS collected. It was noted whether patients were candidates for CPR in the clinical course register (CCR) on 9 occasions and in the nurse register (NR) on 8 occasions. The sex distribution was similar, and mean age in CCR was 85.6 years and 84.8 years in NR. 66.7% (6/9) of the CCR and 62.5% (5/9) of the NR had their BS collected on admission. There was 1 death in this group.

Conclusions: On the whole, knowing the baseline situation and recording whether a patient is a "candidate for CPR" could be of help in clinical practice and could even have prognostic value. Its mention in the medical record could be more extensive, and its usefulness should be assessed in more studies.

 DOI: 10.12890/2022_V9Sup1

184 / #EV1026

YOUNG MALE WITH PANCOAST TUMOR AND SEVERE NEUROPATHIC PAIN THAT IMPROVES WITH METHADONE

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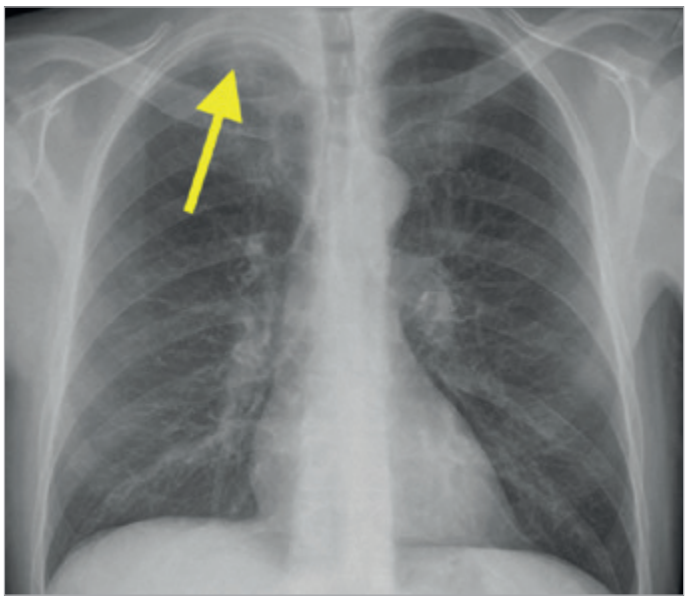
Case Description: A 48-year-old male, diagnosed of Pancoast tumor with bone and liver metastasis 1 year ago (Figure 1), referred severe pain in the upper right limb that did not improve after first-step analgesia. Physical examination revealed the already known Horner syndrome and inflammation, functional impotence and dystrophy of upper right limb, without temperature increase, flushing or cellulite. Pregabalin, morphine and amitriptyline were prescribed, without improvement.

Clinical Hypothesis: Initially, a deep venous thrombosis was suspected, being discarded by no D-dimer elevation and normal eco-doppler results. After examination and imaging results, cellulite and disease progression respectively, were discarded. Another possible diagnosis considered was Paget-Schroetter syndrome, although this was dismissed considering medical history. After other possible etiologies were dismissed, the patient was diagnosed of complex regional pain syndrome (CRPS).

Diagnostic Pathways: Sympathetic blockage was assessed, although discarded considering baseline conditions of the patient. Considering neuropathic pain characteristics and a poor improvement after first choice treatment, low doses of methadone were initiated. When reevaluated a fortnight later, remarkable improvement was referred.

Discussion and Learning Points: CRPS is characterized by severe, neuropathic pain with hyperalgesia that frequently associates inflammation, edema and colour change. Type 1 develops after injury of bone or soft tissues, whilst type 2 is associated with nerve damage. Its main characteristic is the disproportionate pain when considering primary injury. There is no defined pharmacological treatment. Methadone is a low-cost opioid used in moderate-severe neuropathic and oncologic pain. It's considered second therapeutic choice due to the large number of interactions it presents and its slow mechanism of action.



#EV1026 Figure 1.

251 / #EV1027

HEBREW VALIDATION OF THE FAMCARE-2 QUESTIONNAIRE FOR EVALUATING END OF LIFE CARE SATISFACTION AMONG CAREGIVERS OF THE DYING PATIENT-PRELIMINARY RESULTS

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Background and Aims: In-hospital palliative End-of-Life Care (EOLC) is highly challenging. Trust and confidence between caregivers and the medical staff are crucial for reducing stress and enabling relatives to better accept this difficult situation. Therefore, assessing caregiver satisfaction of EOLC is highly important. Currently, the validated FAMCARE-2 questionnaire serves to that end. We performed validation of FAMCARE-2 to Hebrew in order to facilitate EOLC assessment by Hebrew speaking caregivers.

Methods: Following translation and backward translation by certified translators, the questionnaire was distributed to a multidisciplinary team comprising 10 experts, who specialize in EOLC. They ranked the questionnaire on a Likert scale of 1 (very insufficient) to 7 (excellent) for clarity, internal validity, and structural validity. The questionnaire was then distributed twice in a 24-hours interval to 85 primary caregivers of dying patients hospitalized in a single internal medicine ward, for test-retest analysis.

Results: Backward English translation resulted similar to the original English version. Expert opinion on clarity, internal and structural validity varied from median 6.75 to 7. Factor analysis revealed 2 categories of questions, with Kaiser-Meyer-Olkin

 DOI: 10.12890/2022_V9Sup1

adequacy of 0.934 and significant Bartlett test of sphericity (p< 0.0001), indicating appropriate factor analysis. Cronbach's alpha was 0.972, indicating a high degree of internal consistency, and Spearman Rho coefficients for test-retest analyses of the different questions varied from 0.78-0.88 (strong correlation).
Conclusions: The Hebrew version of FAMCARE-2 seems to be a valid and culturally adapted tool for examining satisfaction from EOLC. A larger sample size is required for its complete Hebrew validation.

279 / #EV1028

EUTHANASIA IN THE TIME OF COVID

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Background and Aims: Euthanasia law was approved in Spain during the COVID-19 pandemic. It was a political issue more than a social request. Our aim is to know the health care coverage in patients with terminal illness.
Methods: A descriptive study was conducted in our hospital. We selected patients admitted in charge of the main investigator (Internal Medicine doctor) from November 2017 until June 2021. We included those patients who passed away during the admission. We excluded patients from March 2020 to April 2020 due to COVID-19 pandemic. The clinical reports were reviewed from 'Mambrino XXI' (our clinical informatics system). To establish the end-stage diseases we applied the Spanish 'Guide for Palliative Care in non-oncological patients: terminal illness and prognosis factors'. Analysis with PASW Statistics 18.
Results: A total of 115 patients were included, 54 males and 61 females, with median age of 86 years-old (range 52-104 years-old) and the average stay of 7 days (1-58 days). 56 were admitted in the last 3 months. Arterial hypertension was the most frequent comorbidity (75%), followed by cognitive impairment (41%) and congestive heart failure (35%). 30 patients (26%) were institutionalized, and 84 (73%) were very or totally dependent (Barthel index <35). We found 70 cases with terminal illness (61%): cognitive impairment (24), oncologic patients (18), chronic obstructive pulmonary disease (13), congestive heart failure (11), chronic kidney disease (3) and cirrhosis (1). Only 5 patients were included in Palliative Care Program with ambulatory support.
Conclusions: The access to Palliative Care out of hospital for terminal patients is clearly insufficient.

455 / #EV1029

PROVIDING CARE AT THE END OF LIFE

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Background and Aims: In the last few years, more patients are passing away in the hospital instead of their houses. Our aim is to analyze the use of recommendations for end-of-life care and Last Will and Testament made by patients and/or relatives.
Methods: A descriptive study was maded in our hospital. We selected patients admitted in charge of the main investigator (Internal Medicine doctor) from November 2017 until June 2021. We included those patients who passed away during the admission. We excluded patients from March 2020 to April 2020 due to COVID-19 pandemic. Analysis with PASW Statistics 18.
Results: 115 patients were included, 54 males and 61 females, with median age of 86 years-old (range 52-104 years-old) and the average stay of 7 days (1-58 days). 49% were admitted in the last 3 months, and 68 (60%) at least once in the previous year. 30 patients (26%) were institutionalized, and 84 patients (73%) were very or totally dependent (Barthel index <35). We found 70 cases with terminal illness (61%), the most usual were cognitive impairment (24), oncologic patients (18) and chronic obstructive pulmonary disease (13). Nobody had written last will and testament. However, the decisions were made according to their desires: we asked the patient directly, and the relatives in case of cognitive impairment. During the admission it was necessary to use palliative sedation in 52 cases (45%), mainly because of dyspnea.
Conclusions: There is a lack of written registers so we turn to the patient and the relatives to provide an optimal and respectful care at the end of life.

DOI: 10.12890/2022_V9Sup1

1198 / #EV1030

INFLUENCE OF THE USE OF ANTIBIOTICS IN SYMPTOM CONTROL OF CANCER PATIENTS UNDER END-OF-LIFE CARE ADMITTED IN AN INTERNAL MEDICINE WARD IN A FIRST-LEVEL HOSPITAL.

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Background and Aims: Infections in cancer patients are a common problem. Use of antibiotics in these palliative care patients may raise ethical doubts about its benefits and influence in symptoms control. Objective: to analyze the differences in clinical evolution and symptoms control according to the use of antibiotics.
Methods: Observational, cross-sectional and retrospective study of all palliative cancer patients with concurrent infectious disease who died between January-February 2019 in a first-level hospital. Association between the use of antibiotics and need of palliative sedation was analyzed.
Results: Statistical significance was found between the antibiotic administration and use of palliative sedation (p=0.043), the presence of metastasis (p=0.006) and previous antibiotic use (p=0.038). No significance was found for age (p=0.087), salvage therapy (p=0.151), pain (p=0.904), dyspnea (p=0.822), agitation (p=0.884), secretions (p=0.428), fever (p=0.904) nor length of the stay (p=0.786).
Conclusions: The use of antibiotics in palliative cancer patients did not show an improvement in main symptoms control, nor a decrease in the number of rescues needed. No influence in the length of the stay was seen either. A significative statistical association between the use of antimicrobials and the need of sedation, as well as the presence of metastasis, was seen. Deeper studies of these associations are needed to establish which patients may benefit most of beginning antibiotic therapy in case of active infection.

1257 / #EV1031

USE OF ANTIBIOTICS IN CANCER PATIENTS UNDER END-OF-LIFE CARE ADMITTED IN AN INTERNAL MEDICINE WARD IN A FIRST-LEVEL HOSPITAL.

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Background and Aims: Infections are frequent in oncological patients and antibiotics are often used, even though with a variable use and associated to multiple dilemmas. Our aim is to analyze de prevalence of the use of antibiotics in oncological palliative patients in their last days of life admitted in an internal medicine ward and describe their characteristics.
Methods: Observational, cross-sectional and retrospective study of palliative cancer patients who died between January-February 2019 in a first-level hospital in Spain. Comorbidities and clinical-microbiological, therapy and cancer related variables were analyzed.
Results: 40 oncological patients who died in the ward were included, 65% men and 35% women; mean age 76.6. 50% had an ECOG-PS 3 before admission, 30% ECOG-PS 4. 62.5% died before 7th day of stay, 15% survived longer than 14. Most common neoplasms were lung (17.5%) and stomach/esophagus (15%). 62.5% had metastasis and 20% didn't; rest was unknown. Reasons for admission were non-oncological infectious disease (40%); active infection (27.5%), poor symptom control (22.5%) and acute non-infectious non-oncological disease (10%). During admission, an infection was identified in 67.5%, being respiratory the most frequent (59.3%) followed by urinary (22.2%). Only 42.5% received antimicrobials.
Conclusions: Frailty was highly prevalent: 73% were >70 years old, 80% had a low performance status (ECOG 3-4) and 62.5% died in the first week. Despite active infection was the reason for admission in 27% of cases, it was diagnosed in 67.5% during the stay. Due to the high prevalence of infections, more studies are needed to define which patients may benefit most from antimicrobials.

182 / #EV1032

MANAGING DNACPR DURING THE COVID-19 PANDEMIC

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Background and Aims: DNACPR (do not attempt cardiopulmonary resuscitation) orders are put in place to protect patients where CPR is not in their best interest, thus allowing a more dignified

 DOI: 10.12890/2022_V9Sup1

death. Unfortunately, proper DNACPR procedure is often lacking, potentially resulting in patients receiving unnecessary CPR. This audit aims to assess the process and documentation of DNACPR decisions during the COVID-19 pandemic in October 2020 to identify areas requiring improvement, aligned to the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) recommendations for DNA CPR.
Methods: All in-patients across 4 wards were screened against selection criteria. Data regarding patient information, admission and documentation of DNACPR decisions was recorded using a proforma which was then compared with pre-determined NCEPOD standards.
Results: 92 patients were screened and 45 patients met the patient selection criteria. 35 of these had documentation evidencing their resuscitation status. 23 DNA CPRs were identified, with 10 of these being newly instituted during the current in-patient stay. 74% of patients had their form completed within 24 hours of admission. Information, such as date,review plan,patient address and reason for DNA CPR were not documented to the defined standard. Overall, the forms consistently lacked a senior signature or evidence of communication with other healthcare staff.
Conclusions: DNA CPR forms lacked completion to the defined standard.There was lack of evidence of DNACPR discussions taking place between clinicians and their patients or guardians. The additional step of telephone or VC to communicate with families during the pandemic has resulted in poorer communication outcomes.

233 / #EV1033

END-OF-LIFE TRANSFUSIONS IN PATIENTS WITH AN ONCOLOGICAL DIAGNOSIS

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Background and Aims: To describe the use of blood transfusions in the 6 months before death as a palliative measure, in patients with an oncological diagnosis in the city of Medellin during the period 2013-2018.
Methods: Retrospective cohort, in patients with cancer diagnosis who received transfusions in the last 6 months of life, a non-probabilistic sampling of consecutive cases was performed. The analysis was executed in SPSS, estimating absolute and relative frequencies and median with interquartile ranges.
Results: Out of 3,254 medical records of cancer patients, 151 were included, of which 78 (51.7%) were male, with a median age of 64 years (IQR 52-75). The time to oncological diagnosis had a median of 2 years (IQR 1 and 3). Among the patients included in the study, 62.3% (94) had outpatient management and 37.7% (57) were hospitalized. Palliative treatment with blood products was used in the study patients during the 6 months before their death, with a median of 261.5 cubic centimeters (cc) (IQR 242 - 293) of doses of blood products and a median of 1 unit (IQR 1-2) transfused per patient.
Conclusions: The findings of this research allow us to appreciate the current panorama in the institutions in which palliative care medical services are provided and the considerations taken into account when transfusing blood products to a patient at the end of life as a therapeutic measure in the context of a human being cared for by professionals specialized in palliative care.

486 / #EV1034

HOME FOLLOW-UP BY THE PALLIATIVE CARE SUPPORT TEAM FOR PATIENTS WITH AMYOTROPHIC LATERAL SCLEROSIS (ALS)

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Background and Aims: In Amyotrophic Lateral Sclerosis (ALS), the time to start the comprehensive approach to palliative care should be early, since in most cases it is a progressive, irreversible disease with a short life expectancy. Symptomatic palliative treatment is implemented simultaneously with other specific treatments. Our objective was to describe the care activity of the Palliative Care Support Team in the care of ALS patients from January 1,2015 to May 31,2021 at the University Hospital of Puerto Real (Cadiz).
Methods: We conducted a retrospective descriptive study patients diagnosed with ALS between January 1, 2015 and May 31, 2021. These patients are seen by a multidisciplinary team composed of the specialties of Neurology, Pneumology, Nutrition, Rehabilitation, Case Management Nursing and Palliative Care. When patients are unable to attend the consultation due to the progression of their disease, the Palliative Care team continues with the follow-up and care at home.
Results: During the period of time studied, 46 patients were followed up by the multidisciplinary team. Of these, 52.17% required subsequent follow-up by the home team. Of these, 79.16% died. Of these, 57.89% died at home and 42.10% in hospital. The remaining 20.83% continued to be monitored at home, attending to and caring for their needs and those of their relatives.
Conclusions: The participation of the Palliative Care Support Team that cares for ALS patients and home care in the advanced phase allows managing symptom control and attending to the physical, psychological and social needs of the patient and family, allowing 2/3 to die at home.

 DOI: 10.12890/2022_V9Sup1

492 / #EV1035

VARIABILITY OF CARE OF PATIENTS FOLLOWED BY PALLIATIVE CARE SUPPORT TEAM DURING THE COVID-19 PANDEMIC

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Background and Aims: To assess changes in the care and inclusion of patients included in the Palliative Care Support Team follow-up program of the University Hospital of Puerto Real (Cádiz) during the COVID 19 pandemic situation. Our objective was to characterize the symptom profile and care outcomes in relation to patients included in the program during the COVID-19 pandemic situation versus the period established in the previous year.

Methods: We conducted a retrospective descriptive study of patients included in the Palliative Care Support Team prior to the COVID-19 situation compared to patients included in the pandemic situation. Statistical analysis was performed with the relevant data.

Results: The following data were obtained. In the pre-COVID situation, 661 patients were included in the follow-up program. The mean age of the patients was 71 years and 60.2% were men. The average survival rate in this period was 145 days. In the COVID-19 situation, 417 patients were followed up. Of these, 56.3% were men and mean age was 70.7 years. The average survival rate was 108 days.

Conclusions: In both cohorts, the majority of patients were middle-aged men. There was a decrease in the number of patients included in the COVID-19 pandemic period and with a lower survival interval, possibly due to inclusion with a more advanced diagnosis, a more fragile situation and the lower physical assessment of these patients.

 DOI: 10.12890/2022_V9Sup1

AS14. PERIOPERATIVE MEDICINE

1057 / #EV1036

PREVENTION OF OSTEOPOROSIS IN HOSPITALIZED PATIENTS WITH HIP JOINT FRACTURE

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Background and Aims: We aim to analyze the osteoporotic treatment prescription in our Hospital before and after hip bone fracture. We also tried to find out the vitamin D levels in our center.
Methods: Descriptive observational study. Hospitalized patients in Son Espases at the traumatology department from Palma de Mallorca were included since 1 of January until 21 of December of 2019. We analyzed the amount of precribed osteoporotic treatment in our hospital before and after hip bone fracture. Quantitative variables are shown by mean with estandar deviation and the qualitative variables by percentage.
Results: 293 patients were hospitalized during 2019 year. The mean age was 80 years old. 4.9% of hopiltalized patients were receiving osteoporotic treatment before hospitalitation, and once they were discharged from the hospital, only 16% of the patients were treated against osteoporosis. 26% of hospitalized patients took vitamin D previous hip bone fracture.
Conclusions: Only 16% of patients with osteoporotis hip bone fracture recieved treatment with vitamin D once they were discharged from the hospital. It is important to remark the low levels of vitamin D in our patients even though they live in Mallorca wich is one of the most sunniest areas in Spain. Secondary prevention of osteporotic hip bone fractures in our center is something to take into account. For this reason, in 2021 we are trying our best to indentify and treat the patients with low levels of vitamin D to prevent osteoporotic hip bone fractures. For this reason we are going to create o multidisciplinary team for secondary prevention.

2052 / #EV1037

SEVOFLURANE INDUCED DIFFUSE ALVEOLAR HEMORRHAGE IN A YOUNG PATIENT

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Case Description: A 24-year-old patient with a history of pollen atopy, smoker, attended ER with a 6 day history of abdominal pain with vomit. Assessed by General Surgery, with positive blumberg, the diagnosis of appendicitis was established and the decision to preform a laparoscopic surgery was made. Laboratory work showed only leukocytosis (16.81x10^9/L), with the remaining result within the normal range. Preoperative anesthesia evaluation was unremarkable. The surgery was performed under general anesthesia using inhaled sevoflurane. The patient was successfully extubated following the surgery. However, approximately one hour after the completion of the procedure, he developed acute hypoxemic respiratory distress associated with hemoptysis. Repeated laryngoscopy, without any visible damage. Chest examination revealed coarse crackles most proeminent at the basis bilaterally. An echocardiogram demonstrated normal left ventricular function, and no structural or valvular abnormalities. Due to suspicion of airway edema, nebulizations were performed with albuterol budesonide, adrenaline and hydro 200mg, maintaining the need for MAD, with 90% SpO2, polypneic, with episodes of incoercible cough. Thoracic CT scan was performed, revealing extensive, bilateral, ground-glass alveolar infiltrates compatible with diffuse alveolar hemorrhage.
Clinical Hypothesis: Probable diagnosis of diffuse alveolar hemorrhage after sevoflurane was established. Admitted to the UCI.
Diagnostic Pathways: Microbiological workup for bacterial, fungal and viral infections were non-revealing. The patient was managed conservatively with supportive care and improved clinically.
Discussion and Learning Points: Sevoflurane is a gas used for rapid induction during general anesthesia. The main metabolite

 DOI: 10.12890/2022_V9Sup1

is Compound A which has been hypothesized to cause pulmonary toxicity. However, pulmonary endothelial damage associated with other halogenated gases has been postulated in the literature.

337 / #EV1038

STUDY ON HOSPITAL INTERCONSULTATIONS OF THE TRAUMATOLOGY SERVICE TO INTERNAL MEDICINE

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Background and Aims: Our objective is to know the characteristics of the interconsultations requested to Internal Medicine by Traumatology, and thus assess the workload that such interconsultations entail.
Methods: Descriptive observational study that collects the interconsultations of the year 2017 carried out by the Traumatology service to the Internal Medicine service, from which the various variables analyzed are assessed retrospectively and with the help of the clinical history.
Results: 121 consultations were received. 76% of the patients were men, with a mean age of 75 years, a median of 79 and an interquartile range of 39 to 98 years. Regarding priority, 88 of the interconsultations were classified as ”urgent”, 9 as ““preferential”” and 15 as ”normal” (in 9 of them it was not specified). The month with the most interconsultations was June (19) followed by May (18). The day of the week in which the most interconsultations were received were Monday (31), followed by Tuesday (29). The main reasons for interconsultations were dyspnea (17), fever (6), hyperglycemia (6), arterial hypertension (5) and neurological deterioration (5) among others. Regarding the underlying pathology for which they were admitted, the most frequent reasons were hip fracture (43) and humerus fracture (14) among others.
Conclusions: The importance of the internist regarding interconsultation is increasing and reflects an important workload in their daily work. With these data, we can train ourselves to attend to this type of patient with higher quality, and thus achieve greater satisfaction on the part of the professionals involved in shared care, which will be reflected on the patient.

338 / #EV1039

STUDY ON INTERCONSULTATION OF GENERAL SURGERY TO INTERNAL MEDICINE

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Background and Aims: Medical consultation is an increasingly frequent fact, especially among surgical services, mainly due to the greater complexity of hospitalized patients, not only for the reason for admission, but above all also because of the multiple pathologies they present and the added difficulty of performing a global approach to the patient.
Methods: Descriptive observational study that collects the interconsultations (IC) of the year 2017 carried out by the Department of General Surgery and the Digestive System at the Department of Internal Medicine, from which the various variables are assessed retrospectively and with the help of the clinical history analyzed.
Results: 58 interconsultations were received, 56% of the patients were men, with a mean age of 71.3 years. Regarding priority, 33 of the interconsultations were classified as ”urgent”, 1 as ”very preferential”, 10 as “preferential” and 12 as ”normal”. The month with the most consultations was October (9) followed by December (8). The day of the week in which the most interconsultations were received were Friday (14) followed by Monday (13). The main reasons for interconsultation were heart failure (15), respiratory infection (14), sepsis of any kind (11), rhythm disturbances (10) among others. Regarding the underlying pathology for which they were admitted, the most frequent reasons were related to non-oncological intestinal obstruction (14) and bile duct pathology (12) among others.
Conclusions: In our study, we found a significant prevalence of infectious disease, as well as difficulty in controlling heart failure and underlying arrhythmogenic processes in hospitalized patients.

910 / #EV1040

RENIN-ANGIOTENSIN SYSTEM BLOCKERS IN MAJOR NON-CARDIAC SURGERY – A MORE LIBERAL INTRAOPERATIVE FLUID THERAPY COULD HELP WITH CONTINUING THEIR PROTECTIVE BENEFITS IN THE PERIOPERATIVE PERIOD

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Background and Aims: To stop or not to stop renin-angiotensin system blockers (RASB) before major non-cardiac surgery remains an unresolved issue. Perioperative clinicians should control the unavoidable hypotension in patients on chronic RASB in a real world of prescribing combination drugs (RASB with diuretics, beta-blockers or calcium channel blockers) along with the hypotension of different anesthetic techniques. Optimizing the fluid therapy could help patients with avoiding the stopping dilemma, which focus is the aim of our study.
Methods: 41 patients, ASA I-IV, aged ≥ 18, who underwent major invasive non-cardiac surgery (with blood loss <500 ml) and treated chronically with RASB (with/without diuretic, beta-blocker or CCB) (RASB group, n=17) or not-receiving RASB (no-RASB group,

 DOI: 10.12890/2022_V9Sup1

n=24) were examined retrospectively. Hypotension was defined as SBP < 90 mm Hg or decrease > 20% from preoperative baseline and implemented intraoperative intravenous fluid therapy as liberal (~ 3 l) or restricted (~ 1 l), accordingly. Data concerning demographics (age, sex, BMI, ASA status), comorbidities, preoperative antihypertensive medications, blood pressure values (SBP, DBP, MAP), vasopressors and fluid therapy consumption, ICU/HDU and hospital LOS, and 30-day mortality were explored and tested statistically.

Results: The only between-group differences were increased RASB patients' BMI (p=0.006) and cumulative antihypertensive consumption (p<0.001). Majority of RASB patients (14/17) didn't stop their RASB before surgery. The whole-group comparison revealed 15 patients with implemented restrictive fluid approach, 4/15 from RASB group vs. 11/15 from no-RASB group (p=0.012).

Conclusions: In non-cardiac surgical patients chronically receiving RASB, a more liberal intraoperative fluid therapy could help them with non-stopping the RASB perioperatively.

717 / #EV1041

MYOCARDIAL INJURY AFTER NON-CARDIAC SURGERY: A CHALLENGE FOR THE PERIOPERATIVE MEDICINE. PRELIMINARY RESULTS ON 107 PATIENTS FROM THE EMPATHIES STUDY

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Background and Aims: Myocardial injury after non-cardiac surgery (MINS) is a relatively new nosological entity defined as a postoperative prognostically relevant myocardial injury due to ischemia, diagnosed by cardiac troponin increase. Although MINS is mainly asymptomatic, it may be characterized by substantial morbidity. There are no validated tools to identify patients at risk of developing MINS so far. This prospective trial aimed to assess the correlation between intraoperative stress and MINS (NCT03375476).

Methods: Single-center, prospective, blinded study. Patients scheduled for vascular surgery were enrolled. A high-sensitivity troponin assay was performed daily since just before surgery until the third postoperative day. The preoperative risk of major cardiovascular events was assessed by Lee's and Gupta's risk tool. Intraoperative surgical stress was assessed by the Surgical Plethysmographic Index (SPI, GE Healthcare, Finland).

Results: 107 patients were enrolled, and 14 (13%) experienced MINS. Mean age (p<0.001), Gupta's risk (p=0.027), and amount of crystalloids infused during surgery (p=0.006) were different between no-MINS and MINS patients. Mean SPI, time spent above SPI threshold of 50, awakening time, and length of hospitalization were not different between groups. No patients died. At the multiple variable analysis, only age (β 0.876, 95%CI 0.785-0.979, p=0.019) and amount of fluids (β 0.951, 95%CI 0.911-0.993, p=0.022) were correlated with the risk of MINS.

Conclusions: In this cohort of patients at risk of cardiovascular complications, the preoperative risk, and intraoperative stress assessment alone failed to identify patients at risk of MINS. The approach to MINS is still a challenge for the perioperative medicine.

DOI: 10.12890/2022_V9Sup1

1233 / #EV1042

DIGITAL LIFESTYLE CHANGE POSITIVELY IMPACTS METABOLIC SYNDROME PARAMETERS IN TYPE II DIABETES

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Background and Aims: Lifestyle change is a class I indication in cardiovascular disease prevention. We tested the effect of a digital lifestyle therapeutic on metabolic syndrome parameters in patients with complex Type II diabetes (insulin or GLP-1 receptor agonist therapy) in primary care; having previously shown benefits in overweight, obese and diabetic subjects in pharmacy, corporate and general practice settings.

Methods: 41 subjects (M=21, F=20) mean age 58 (range 38-72) were enrolled in the digital lifestyle program for 16 weeks. Parameters measured were weight, BMI, waist circumference, waist/height ratio, HbA1c, systolic, diastolic blood pressure, lipids and liver blood tests. Results on entry and at 16 weeks were compared between compliant and non-compliant groups using the student two-tailed t-test.

Results: Compliance was 76% (31 compliant, 10 non-compliant) see Table 1. Compliant (compared to non-compliant) subjects showed a statistically significant reduction in weight, BMI, waist circumference, waist/height ratio, diastolic blood pressure and ALT ($p<0.01$). HbA1c was reduced by 8.2 mMol/Mol. There was a non-statistical reduction in systolic BP and triglycerides. Compliant patients' medication burden was substantially reduced.

Conclusions: A lifestyle-change digital therapeutic, that fits seamlessly into the work practice of primary care, has significant positive metabolic and therapeutic effects in patients with complex type II diabetes. These results are similar in trend to work treating metabolic syndrome digitally in corporate, pharmacy, general practice and individual client settings.

Parameter	N	Compliant (N=31)			Non-Compliant (N=10)			Total Cohort
		Entry	16 weeks	Mean Δ	Entry	16 weeks	Mean Δ	P Value
Weight (lbs)	41	215.6	204.2	-11.4	224.0	225.0	1	<0.01
Waist/Height	38	0.71	0.67	-0.04	0.72	0.69	-0.03	<0.01
BMI	41	36.7	34.8	-1.9	38.1	38.3	0.2	<0.01
Waist (inches)	41	47	44.5	-2.5	48.3	46.6	-1.7	<0.01
ALT	41	33.9	26.1	-7.8	29.1	29.5	0.4	<0.1
TG (mg/dL)	39	249	208.3	-40.7	250.7	243.7	-7	<.1
HbA1c %	41	8.7	7.3	-1.4	9.1	9.6	0.5	<0.01
SBP (mmHg)	41	144.0	140.6	-3.4	137.5	141.2	3.7	<.1
DBP (mmHg)	41	90.8	84.5	-6.3	82.7	79.1	-3.6	<0.01

#EV1042 Table 1.

941 / #EV1043

SMOKING CESSATION REFERRAL – A MISSED OPPORTUNITY

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Background and Aims: In Ireland, in 2016, approximately 34,000 inpatient hospital admissions were attributed to smoking and exposure to second-hand smoke at an estimated cost of €466 million. Smoking cessation services resulted in a 50% reduction in smokers within a month of starting. The aim of this study was to determine whether smoking status was recorded on admission, pharmacotherapy for abstinence was prescribed and referral for smoking cessation was made, in an inpatient cohort.

Methods: 6 trained data collectors screened inpatient notes of all medical and surgical patients in a single day. Basic demographics, smoking status, pharmacotherapy for abstinence and smoking cessation referral were documented. Data was entered onto an excel spreadsheet and analysed using descriptive statistics.

Results: The mean (SD) age of inpatients screened was 73 (16.7) years. The male to female ratio was 1:1. 111 of 156 inpatients (71%) had smoking status documented on admission. 26 (23%) were current smokers, of which 4 (15%) were recorded to have been offered pharmacotherapy and referred to smoking cessation services.

Conclusions: Almost one quarter of hospitalised patients were current smokers. Despite the known health benefits of smoking cessation, the majority of smokers were not offered smoking cessation services. A significant minority of patients had no smoking status recorded. Free and effective smoking cessation services are provided by the Health Service Executive in Ireland

 DOI: 10.12890/2022_V9Sup1

across the country. Prompts to remind admitting doctors to refer to smoking cessation services will be incorporated into the standardised admission proformas to improve referral rates.

326 / #EV1044

COVID STRIDES WHERE "RACE"SNAKES THROUGH OUR LIVES

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Background and Aims: During the COVID-19 pandemic Black and Ethnic Minority (BME) individuals experienced higher rates of hospitalization and mortality. They have more psychological distress and cardiometabolic diseases. Several hypotheses are advanced to explain the increased severity of COVID-19 disease in BME but socioeconomic status is a great mitigation factor. Is there a link between ethnicity, social inequalities and severity of COVID infection?

Methods: A review of literature has been made using keywords "ethnicity; discrimination; inequalities; COVID-19" on traditional articles databases.

Results: Telomere shortening is associated with the onset of cardiovascular diseases, metabolic syndrome and increased mortality. There is evidence that in African Americans the greater the number of contexts in which discrimination is experienced and the lower the socioeconomic status, the greater the amount of telomeric base-pair lost annually. In adverse conditions (precarious socioeconomic status/ chronic stress) there is an up-regulation of genes having a keyrole in inflammation and a down-regulation of genes involved in antiviral response and in the production of antibodies. We refer to this pattern as "conserved trascriptional response to adversity-CTRA". Experiencing racial descrimination has been shown to activate the CTRA pattern, promoting inflammation and oxidative stress, thus leading to a telomeres shortening, aging cells and, ultimately, an inflammatory state.

Conclusions: The experiences of inequalities lead to chronic activation of CTRA and early cell senescence, which are responsible for abnormal inflammatory responses and higher incidence of cardiometabolic diseases. Thus, the severe course of COVID-19 disease in BME population could be explained by these mechanisms and it could be such a kind of a marker of structural racism in western societies.

451 / #EV1045

DYNAMICS OF EATING BEHAVIOR IN MEDICAL STUDENTS ACCORDING THEIR YEAR OF STUDY

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Background and Aims: The main obesity and arterial hypertension risk factors considered excessive sugar beverage and snack consumption and limited consumption of fruits and vegetables.

Methods: To obtain healthy eating behavior 525 medical students underwent brief survey in October 2018. There were 172 students of 2nd year (31 international), 154 students of 3rd (53 international) and 199 of 4th year (36 international). In autumn 2019 3rd year students (n=180) were studied once more.

Results: Daily sugar beverages consumption reported 55% of 2nd year, 25% of 3rd and 42% of 4th year international male-students. 44% of 2nd year, 9% of 3rd and 18% of 4th year domestic male-students consumed sugar drinks every day. In domestic 3rd year females like in males every day sugar drinks consumption rate was lower than in the 2nd ones (53% vs 6%; p=0.000022) and was stable in 4th year. 50% of female-students in all samples consumed such drinks 2-3 times per week. Analysis made in students examined twice (in 2nd and 3rd year) revealed same trend: 3rd year males consumed drinks 2 times and females - 5 times less often than 2nd ones. Fruits and vegetables consumed every day 50-60% of domestic and 40-80% of international students.

Conclusions: Adherence to healthy eating in 3rd and 4th year students are higher than in the 2nd ones may be due to food hygiene course. Sugar drinks and fast food consumption are really controlled risk factors in university students.

937 / #EV1046

WHAT CAN A ROUTINE ELECTROCARDIOGRAM TELL US ABOUT THE HEALTH OF YOUNG PEOPLE?

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Background and Aims: Despite the ECG is used more than 120 years, it remains the first line method in clinical practice. Recently has been shown that repolarization instability - periodic repolarization dynamics may serve as predictor of mortality after myocardial infarction due to elevated sympathetic activity. As papers devoted ECG features in apparently healthy people are scarce, the aim of the study was to examine some differences in autonomic nervous system status in undergraduate students having mild repolarization abnormality.

Methods: In spring 2021 routine 12-lead ECG in supine and 3-min. recording in sitting position with heart rate variability (HRV) analysis in time and frequency domains were consistently provided in 68 females and 29 males – 6th year medical students.

DOI: 10.12890/2022_V9Sup1

Results: 12/68 (17.6%) of females and 5/29 (17.6%) of males had flattened T-wave in III, AVF and/or in V5-V6 leads with sinus rhythm or mild sinus arrhythmia. In both sexes RR-interval was significantly shorter (in females - 650±22 vs 725±12 ms; p=0.0042; in males - 545±31 vs 757±19 ms, p=0.0045), and HRV was lower in time domains (SDNN, RMSSD, CV%. pNN50%, all – p<0.001). In males also absolute power of all bands (VLF, LF, HF; TP; p<0.05) was lower. Additional analysis made when those having incomplete right bundle branch block or borderline P-wave increasing were placed in separate subgroups revealed no differences comparing to main group.
Conclusions: Mild repolarization disturbances seen in young healthy people's ECG indicate the sympathetic predominance and need to be cured by self-regulation technics.

706 / #EV1047

PREVENTIVE MEDICINE FOR FUTURE DOCTORS: COMPARATIVE ANALYSIS FROM THE BEGINNING TO THE END OF LEARNING IN MEDICAL SCHOOL

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Background and Aims: The lifestyle and physical activity (PA) in the youth play a key role in the prevention of cardiovascular and metabolic diseases. We aimed to compare health status and complains' dynamics during undergraduate study in medical school.
Methods: Cross-sectional study was conducted in last year students from 2014 to 2021 and in the freshmen – from 2016 to 2020. 849 first year (575 females and 274 males) and 807 last year students (559 females and 248 males) completed 45-item questionnaire about habitual life-behavior and performed 9 cognitive tasks.
Results: Mean age in freshmen was 18.3±0.1 and in the last year ones - 23.4±0.2 years. 31.3% of first year students (females - 35.6%, males – 22.3%; p<0.01) reported different health complains. The prevalence of complains in last year students was higher (45.1%), both in females (50.0%) and in males (33.9%; p<0.01). The most prevalent was fatigue (22.9 and 24,1%), visual problems (19.2 and 11.2% %), low working capacity (11.7 and 22.8%) and headache (10.5 and 8.2%). Only 29.9% of 1st year females and 39.2% of males in 2020 were physically active. Females demonstrated bigger breath holding test, lower heart rate, better flexibility and visual working memory; males - better flexibility, sleep quality and bigger self-rated health.
Conclusions: 1 in 3 first and 1 in 2 last year medical students reported complains may influence not only general health but academic performance. As PA is the low cost health enhancing medicine, promoting healthy lifestyle behaviours among students is certainly needed.

DOI: 10.12890/2022_V9Sup1

AS16. RARE DISEASES

1858 / #EV1048

THIRD BRANCHIAL CLEFT CYST: A RARE CAUSE OF CERVICAL MASS

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Case Description: The authors report the case of a 55-year-old man, active smoker, with a daily consumption of 12 g of ethanol and no other relevant medical history. He was referred to Internal Medicine consultation for a cervical swelling with six months of evolution, without associated symptoms. On physical examination a firm, painless, left cervical mass was palpated, not adherent to the deep planes, with a 5 cm axis. Ultrasound identified a heterogeneous cystic lesion in the left lateral cervical region with 58x21 mm. Analytically had no significant changes and IGRA test was negative. Chest radiography was normal. Aspiration cytology of the cyst was performed with 40 mL of translucent liquid, with no neoplastic cells. A cervical computed tomography scan showed a cystic lesion 44x40x17 mm on the left side in posterior and internal to the sternocleidomastoid muscle, posterior and external to the carotid axis, probably a cyst of the third branchial cleft. He was referred to an otorhinolaryngologist. Since it's a benign lesion, with stable size and painless, he remained in follow-up with an indication to repeat the ultrasound in 6 months.
Clinical Hypothesis: Third branchial cleft cyst.
Diagnostic Pathways: Analysis, imaging studies and aspiration cytology.
Discussion and Learning Points: Cervical masses are usually asymptomatic and often found in primary health care. Although malignant etiologies represent only <1% it's important to rule them out. Third branchial cleft cysts are very rare, congenital, benign cause that may require surgical excision due to its compression effect. Here, the presence of risk factors for a neoplastic cause (age, active smoking and painless nodule), led to further etiological study.

1080 / #EV1049

DIGITAL ISCHEMIA /CUTANEOUS MANIFESTATIONS IN GRANULOMATOUS POLYANGIITIS

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Case Description: We describe a 50-yearold woman who presented with lung cavitation and cutaneous manifestation (ulcers on her hands and digital ischemia of toes) who was diagnosed with granulomatous polyangiitis (GPA).
Clinical Hypothesis: Infection, other vasculitis, connective tissue disease and malignant etiologies.
Diagnostic Pathways: The diagnosis is based on clinical picture, clinical pathology of the involved organs and in the positive result of ANCA-c (antinuclear cytoplasmatic antibodies).
Discussion and Learning Points: Granulomatous polyangiitis (GPA) is a rare anti-neutrophil cytoplasmic antibodies (ANCA) vasculitis that affects small vessels. Treatment is conducted with immunosuppressing drugs and should be started as early as possible. In the absence of typical manifestations, GPA is indeed a diagnostic challenge to the physician. Atypical manifestations like cutaneous lesions are found in 50% of patients, but digital ischemia accounts for <1% of cases. However, these forms of presentation are a challenge for the diagnosis of GPA, as the disease can initially present in a localized form before heralding into a generalized disease.

1211 / #EV1050

ADULT-ONSET STILL'S DISEASE: AN EXCLUSION DIAGNOSTIC

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Case Description: We describe a 49-year-old man who presented fever, arthralgias, odynophagia, mediastinal and hilar adenopathy, splenomegaly and negative anti-nuclear antibodies and rheumatoid factor. Fulfilling 3 of 4 major and 3 of 4 minor Yamaguchi criteria the diagnose of adult-onset Still's disease (AOSD) was made and initiated the treatment with a recombinant human non-glycosylated IL-1 receptor antagonist, anakinra.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: Infectious, autoimmune and neoplastic diseases.
Diagnostic Pathways: The diagnosis is clinical, and it often needs the exclusion of infectious, neoplasic, autoimmune and other inflammatory diseases.
Discussion and Learning Points: The AOSD is a systemic inflammatory disorder of unknow etiology. It's characterized by spiking fever, arthritis and maculo-papular evanescent skin rash. Treatment remains empirical with non-steroidal anti-inflammatory drugs, corticosteroids, and biological and non-biological disease modifying antirheumatic drugs (DMARDs). An early treatment with anakinra may modify the natural course of the disease. The acute inflammatory process could be stopped if the suitable treatment is administered, so, it´s important to realize that an early intervention with biological DMARDs may induce a larger long-term improvement than the delayed administration.

2586 / #EV1051

CASTLEMAN DISEASE

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Case Description: We present the case of a 64-year-old-man who complained of recurring abdominal pain and fever. He was previously diagnosed of hypertension, type 2 diabetes, ischaemic heart disease and psoriasis. He was admitted several times due to a sistemic inflammatory syndrome of uncertain origin. Clinical exammination only revealed a palpable exantema.
Clinical Hypothesis: Differential diagnostics during the hospitalizations included systemic infections, lymphoproliferative disorders and autoinmune diseases.
Diagnostic Pathways: An erythema nodosum and a leukocytoclastic vasculitis was diagnosed with a skin biopsy. Blood tests showed a macrocytic anemia, hipoalbuminemia, acute kidney failure, C-reactive protein elevation and polyclonal hypergammaglobulinemia. Serology and autoimmunity test findings were unremarkable. A CT scan revealed a generalized subcentimetric adenopathy, hepatosplenomegaly, interstitial lung disease and small pleural effusion. Bone marrow biopsy described a megakaryocytic hyperplasia with policlonal inmunophenotype. The small volumen lymphadenopathy made the diagnosis challenging due to the difficulty obtaining a biopsy. After one year of admissions, the patient developed superficial inguinal lymph nodes that made biopsy feasible. Pathological anathomy confirmed the presence of a multicentric castleman disease (MCD), human herpesvirus 8 (HHV8)–unrelated. Simultaneusly a renal biopsy was performed showing a pauci-immune proliferative glomerulonephritis.
Discussion and Learning Points: MCD is a type of castleman diseased characterized by the affection of multiple node stations. It is named idiopathic MCD (iMCD) when HHV8 is absent. Morover, this subgroup can also be clasiffied into two distinct entities, iMCD-trombocytopenia, ascitis, reticulin fibrosis, renal dysfunction, organomegaly (iMCD-TAFRO) and not-otherwise-specified (iMCD-NOS). The lack of thrombocytopenia in this case lead to the final diagnosis of iMCD-NOS.

1428 / #EV1052

SIMPLIFYING A DIAGNOSTIC OF A RARE DISEASE

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Case Description: We describe the case of a 28-year-old female who presents a chronic hypokalemia since the age of 17. The patient had a past history of a glucose intolerance, biliary lithiasis, urolithiasis and recurrent corneal ulcer with conjunctival lithiasis. Her family's medical history is irrelevant. Despite having no diagnosis, she was medicated with oral potassium supplements in combination with an aldosterone antagonist. It was requested Internal Medicine consultation and the medical record was studied. It was found persistent hypokalemia, hypomagnesaemia and hypocalciuria. Therefore, the patient only needed an arterial blood gas test that documented metabolic alkalosis to have the diagnosis of Gitelman syndrome. In conclusion, the diagnosis of rare disease could be difficult but what delayed the diagnosis was the absence of an adequate clinical history and the correlation with the biochemical findings.
Clinical Hypothesis: Gitelman syndrome.
Diagnostic Pathways: Arterial blood gas test.
Discussion and Learning Points: In conclusion, the diagnosis of rare disease could be difficult but what delayed the diagnosis was the absence of an adequate clinical history and the correlation with the biochemical findings.

1189 / #EV1053

RETROPERITONEAL FIBROSIS: IDIOPATHIC OR SECONDARY? - A CLINICAL CASE

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Case Description: Retroperitoneal fibrosis (RF) is a rare disease, characterized by inflammation and fibrosis in retroperitoneal tissues. A 45-year-old white female, smoker and with past medical

 DOI: 10.12890/2022_V9Sup1

history of depression, medicated with venlafaxine and pregabalin. Admitted to the Emergency Department (ED) with left flank abdominal pain radiating to ipsilateral inferior limb with a month of duration. Abdominal palpation elicited tenderness on the left flank and left iliac regions. A computer tomography (CT) in ED revealed periaortic fibrosis without ureterehydronephrosis.
Clinical Hypothesis: The clinical hypothesis was RF.
Diagnostic Pathways: Laboratory results reveled a creatinine of 0.96 mg/dL and C-reactive protein of 1.82 mg/dL. Additional investigation ruled out autoimmune disease, hematologic and solid malignancy, tuberculosis and elevation of serum Immunoglobulin G4. CT of the abdomen evidence periaortic inflammation and fibrosis, extending since infra-renal left artery until the origin of iliac external and internal arteries and right ureterehydronephrosis.
Discussion and Learning Points: In conclusion, corticosteroid therapy was initiated and at week 4 of treatment control CT presented regression of disease. After 30 weeks of treatment control CT reveled resolution of inflammation. A biopsy was not realized because the risk of major complications. The treatment should not be delayed because there is major response. Pregabalin is associated to RF and we cannot exclude a secondary cause. The patient maintain vigilance for malignancy or relapse.

864 / #EV1054

THE INEVITABLE END OF KEARNS-SAYRE SYNDROME

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Case Description: We present a case of a 20-year-old female patient diagnosed with Kearns-Sayre Syndrome (KSS) complicated with ataxia, progressive external ophthalmoplegia and retinitis, type 2 Diabetes Mellitus, corneal ulcers, and complete heart block with pacemaker. The patient was admitted to the emergency room (ER) due to dyspnea and increased respiratory secretions with 10 days of evolution. In the last few months, the patient showed progressive worsening of her general condition with progressive weakness, dysarthria progressing to anarthria and dysphagia to solids and liquids. At the ER she presented metabolic acidemia, hyperglycemia 254 mg/dl and ketonemia. She had respiratory exhaustion requiring orotracheal intubation.
Clinical Hypothesis: Diabetic ketoacidosis in a patient with mitochondrial myopathy. Community-acquired pneumonia.
Diagnostic Pathways: Respiratory samples were collected and revealed infection by *Klebsiella oxytoca*. Neurologically, the patient maintained generalized muscle weakness. Computerized axial tomography showed atrophy and leukoencephalopathy. She was successfully extubated after 306 hours of ventilation. Considering the progressive deterioration of the general condition, the case was discussed in a multidisciplinary meeting and with the family, and it was decided that the patient didn´t present conditions for further invasive measures. Upon the stabilization of the situation of diabetic ketoacidosis and pneumonia, the patient was transferred to the Palliative Care Unit, where she eventually passed away.
Discussion and Learning Points: KSS is a rare neuromuscular disorder characterized by progressive limitation of eye movements. There is currently no effective way to treat mitochondria abnormalities in KSS. Treatment is symptomatic and supportive. KSS is a slowly progressive disorder. The prognosis varies depending on the severity and the number of organs involved.

2350 / #EV1055

IDIOPATHIC CD4+ LYMPHOPENIA ASSOCIATED MULTISYSTEMIC INFLAMMATORY SYNDROME (MIS): TWO RARE CONDITIONS

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Case Description: 59 year-old woman with a history of metastatic lung carcinoma under treatment & good response and idiopathic CD4 lymphopenia. The patient denied any symptoms or previous diagnosis of COVID-19. She was admitted due to a sudden onset of fever, arthromyalgia, lumbago, associated with the second shot of mRNA vaccine against SARS-CoV-2 48 hours before. Spinal cord MRI scan didn't show any data of infection. She presented progressive lower extremity edema, abdominal pain accompanied by gastro-alimentary nausea and vomiting 72 hours later she presented dyspnea and oxygen echocardiogram biventricular dysfunction, cardioMRI compatible with Takotsubo myocardiopathy.
Clinical Hypothesis: At clinical context, there is evidence of an acute non-infectious inflammatory process with elevated biomarkers that involves several systems related with acute ventricular dysfunction, excluding all the most probable causes. The history of vaccination, asymptomatic infection by COVID-19 becomes relevant to suspect in MIS.
Diagnostic Pathways: The patient showed positive IgG antibodies and protein S for SARS-COV-2, as well as elevation of biomarkers, negative blood and urine cultures, pleural fluid without evidence of malignancy, acute ventricular dysfunction evidenced by cardiacMIR performed CDC criteria for multisystem inflammatory syndrome CPR 86.2 mg/dL (0-6 mg/dL); IL-6 143.3 pg/ml (0-7 pg/ml); troponin I 0.190ng/ml 0 - 0.100); procalcitonin 0.05 ng/ml (0-

 DOI: 10.12890/2022_V9Sup1

0.5 ng/ml).
Discussion and Learning Points: MIS-A is characterized by hyperinflammatory syndrome that occurs days after infection/vaccination against SARS-CoV-2. CD4+ lymphopenia may be associated with this condition however there is a lack of information to correlate this event. Takotsubo syndrome is a rare complication of SARS-CoV-2 infection and there are no reported cases associated with MIS-A.

1997 / #EV1056

LOWER LIMB VEIN THROMBOSIS COMPLICATING COMPLEX REGIONAL PAIN SYNDROME (CRPS). A CASE REPORT

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Case Description: A 36-year-old man presented with extreme pain and swelling of the right leg from foot to mid-thigh. 2 years earlier he suffered right medial meniscus tear of the right knee after a fall and underwent arthroscopy with meniscectomy two months after injury. After surgery and the patient became debilitated by pain and swelling that progressed over time. Physical examination revealed tenderness, allodynia, non-pitting edema, erythema, hyperhidrosis, and alternating temperature along the affected limb.
Clinical Hypothesis: Although complex regional pain syndrome (CRPS) is highly suspected, differential diagnosis included infectious, neoplastic, vascular, infiltrative and inflammatory diseases that needed to be ruled out.
Diagnostic Pathways: Blood lab tests including white blood count, c-reactive protein, creatinine kinase (CK) and LDH were within normal limits. Serology for RF, ANA, ANCA and anti Jo-1 was negative. MRI scan demonstrated swelling of the subcutaneous tissue and superficial edema. Deep muscle biopsy revealed mild fibrosis but no specific findings. Duplex ultrasound examination revealed thrombosis of the great saphenous vein at the level of gastrocnemius muscle and apixaban was initiated.
Discussion and Learning Points: CRPS is a rare disorder characterized by pain, swelling, skin changes, and vasomotor instability of the affected extremity. The pathophysiology of CRPS remains unclear. Autonomic dysregulation, Immunologic factors, genetic predisposition, and psychological stress may play a role. The disability in CRPS could be associated with increased risk of lower limb vein thrombosis. The clinical finding may overlap in CRPS and vein thrombosis (superficial and deep), posing a challenge for the clinician. Prophylactic anticoagulant therapy should be considered in patients with lower limb CRPS.

1422 / #EV1057

BUERGER'S DISEASE - A DIAGNOSIS TO KEEP IN MIND

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Case Description: A 41-year-old woman presented to the emergency department with increasingly severe pain on the toes of her right foot, accompanied by plantar numbness and discoloration at the tip of the bigger toe for the past three weeks. The patient had a 8-pack year history of smoking, and no other relevant medical history, except for occasional numbness of both hands and feet. At admission, the patient presented cold extremities and absent dorsalis pedis pulse. Arterial Doppler ultrasound revealed severely compromised flow in the distal right popliteal artery and right tibial artery. In a matter of one month, the case quickly evolved into necrosis of the right foot, with compartment syndrome and necrotizing fasceiitis, later submitted to fasciotomy. Despite immediate smoking cessation and medical therapy with anticoagulant, pentoxifylline and prostaglandin analogues, the patient was ultimately submitted to below the knee amputation.
Clinical Hypothesis: Peripheral arterial disease; vasculitis; antiphospholipid syndrome (APS); Thromboangiitis obliterans (Buerger's disease).
Diagnostic Pathways: Antinuclear antibodies were not detected, and serum complement concentrations were normal. Protein C, protein S, and antithrombin III levels were within normal range. Hematological evaluation completed later on did not identify any hypercoagulable state. Ultrasound scans showed no embolic source in the heart or abdominal aorta.
Discussion and Learning Points: Buerger's disease is not only a predominantly clinical diagnosis, but also a diagnosis of exclusion. Therefore, it requires a high level of suspicion in young, male smoker patients who present with acute onset ischemia of the extremities. Early detection and treatment, especially immediate interruption of tobacco use, may prevent later amputation.

847 / #EV1058

FIBROMYALGIC PAIN UNDER STUDY

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Case Description: A 39-year-old woman diagnosed with fibromyalgia a few years ago, came to the internal medicine consultation due to the occurence of myalgia and early fatigue in relation to overload of physical exercise during the three years of evolution. On physical examination, there was no weakness in any muscle group of limbs. Preserved and symmetrical tendon reflexes. Normal gait, she could squat without support

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: The occurence of exercise intolerance and muscle pain made us suspect a metabolic or mitochondrial myopathy. The clinical history was the fundamental pillar for the diagnosis.
Diagnostic Pathways: In previous analytics it was observed CPK values until 500 U/L. It was decided to request various complementary tests to complete the study: Electromyogram with nonspecific mild myopathic involvement. Forearm test exercise with ischemia without elevation of lactate levels. Biopsy of left quadriceps with minimal and nonspecific changes with immunohistochemical study (HE, SDH and *Gomori trichrome* staining) and histoenzymatic with no relevant findings. Normal CPT-II result. Finally, an alteration was found in the mitochondrial respiratory chain: deficiency of complex II, III, IV and II + III.
Discussion and Learning Points: Mitochondrial myopathy with involvement of the respiratory chains encompasses a chronic condition which include various manifestations such as: exercise intolerance, muscle pain crises induced by strenuous and uninterrupted exercise, fasting, infections or heat excessive. In general, the treatment is symptomatic. However the use of vitamin "cocktails", antioxidants and cofactors are spread with the objetive to favor the production of ATP, although its efficacy has not been reliably demonstrated.

1970 / #EV1059

LYNCH SYNDROME AND THYROID NODULES: A SINGLE CENTER EXPERIENCE.

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Background and Aims:
Lynch syndrome (LS) is an autosomal dominant disease associated with germ-line mutations of genes involved in mismatch repair (MLH1, MSH2, MSH6 and PMS2). LS patients are at increased risk for colorectal cancer and other malignancies (especially endometrial, ovarian and gastric cancer). There are few reported cases of thyroid cancer (TC) in patients suffering from LS. The aim of this study is to systematically investigate the presence of thyroid nodules in LS patients and to explore its association with clinical features of the disease.
Methods: From our cohort of 66 LS patients followed at our rare disease clinic, 22 (33.3%) prospectively underwent thyroid ultrasound.
Results: Mean (SD) age was 48.2 (14.8) years; 14 (63.6%) were women. Four (18.2%) patients were carriers of MLH1 mutation, 7 (31.8%) of MSH2, 9 (40.9%) of MSH6, for 2 (9.1%) the mutation was not known. In 17 patients (77.3%) we found at least one thyroid nodule, localized bilaterally in 4 cases (23.5%), in the right lobe in 4 cases (23.5%), in the left lobe in 3 cases (17.6%); for 6 patients (35.3%) the localization was not available. The size of the nodules was <1 cm in 7 (41.2%) patients, >1 cm in 5 (29.4%) patients; not available for 5 patients (29.4%).
Conclusions: Thyroid nodules are frequent in patients with LS and often occur bilaterally. Systematic investigations are needed to estimate their prevalence and features.

2217 / #EV1060

A CASE OF CONGESTIVE HEART FAILURE AS A MANIFESTATION OF ERYTHRODERMA

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Case Description: 51-year-old woman; allergy to amoxicillin-clavulanic, prothrombin gene mutation, deep vein thromboses, varicose ulcers. She went for pain and erythema in the left leg, ulcers with exudation compatible with cellulitis.Therapy was started with ciprofloxacin and clindamycin, changed to sulfamethoxazole-trimethoprim after identication of MRSA in culture;Then, she presented erythroderma of more than > 90% of the body surface, eosinophilia, hypertransaminasemia and acute heart and respiratory failure.Switched to linezolid with good evolution.
Clinical Hypothesis: Ruling out other pathologies, heart failure was assumed to be as complication of drug-related erythroderma
Diagnostic Pathways: A transthoracic echocardiogram showed pulmonary hypertension without structural heart disease, a pulmonary CT angiography without PTE, autoimmunity and serology, negatives. Ultrasound control showed improvenment of pulmonary pressures.
Discussion and Learning Points: Erythroderma is any scaly erythematous eruption of more than 90% of the body surface. May cause, hydroelectrolytic and thermoregulatory disturbances, sepsis or cardiac failure.Frequent causes are eczema, psoriasis, toxicoderma and T-lymphomas. It could be caused by interactions between cytokines and cell adhesion molecules. Tumor necrosis factor and IFN-gamma, produce an increase in the division of epidermal cells and the mitotic rate producing exfoliation. Clinical manifestations onset insidiously, except in cases for drug, where are abrupt. Scaling exfoliative are typical in drug reactions and the blistering are secondary to eczema. The systemic manifestations are tremors, dysthermia and lymphadenopathies, infrequently hydroelectrolyte alterations, cardiac and respiratory failure and infections. A type of drug erythroderma exists, DRESS syndrome; Diagnostic criteria (three): causal relationship with drug, skin rash, involvement of more than one organ, lymphadenopathy in two sites, lymphocytosis or eosinophilia or thrombocytopenia, fever.

 DOI: 10.12890/2022_V9Sup1

490 / #EV1061

WHEN BONES ARE MORE FRAGILE THAN CRYSTAL: A CASE OF HYPOPHOSPHATEMIC OSTEOMALACIA

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Case Description: We describe the case of a 59-year-old woman who came to our attention for lower back pain and myalgias at the pelvic girdle, lasting for 10 months. She had been walking only for small distances, using crutches, for four months. No surgery or noteworthy pahologies in her medical history. She had performed a pelvic-MRI positive for multiple fractures of the pelvis and 99mTC-HDP bon scan positive for multiple areas of increased bon turn-over suggestive for small spontaneous bone lesions of the ribs, pelvis, knees and right tarsus. At the blood tests hypophosphatemia, elevated ALP levels and only mild hyperphosphaturia.
Clinical Hypothesis: A part from the necessity of excluding postmenopausal and secondary form of osteoporosis, the widespread localization of the fractures and the persistent hypophosphatemia suggested the hypothesis of rare forms of osteomalacia, including TIO (tumor induced osteomalacia).
Diagnostic Pathways: DEXA (T-score -4 ds in the lumbar and femoral neck) and 18-FDG PET-CT (negative for pathological accumulations) were performed. Study for celiac disease, thyroid dysfunction, hyperparathyroidism and autoimmunity were negative. PET-CT with gallium citrate was not suggestive for neoplastic lesions expressing SST2 and SST5 receptors. FGF23 plasmatic levels were above the upper limit.
Discussion and Learning Points: Hypophosphatemic osteomalacia is a rare disorder caharacterized by hypophosphatemia and fractures. Localization of responsible tumors could be difficult since the majority are small and could be localized everywhere. When tumors are undetectable phosphate supplements and active vitamin D should be administrated.

Zinan Y et al, Tumor-induced osteomalacia. Osteoporos Sarcopenia. 2018;4(4):119-127

507 / #EV1062

HYPOXEMIA IN NEUROMUSCULAR DISEASE: DON'T TAKE ANYTHING FOR GRANTED

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Case Description: A 37 year-old male went to the Emergency Room complaining about malaise, myalgias, astenia and headaches that had showed up in the last six months. He reported that his brother had been recently diagnosed facioescapulohumeral dystrophy (FSHD). Pulsyoximetry revealed SatO2 88% and an urgent blood test evidenced both mild normocytic anemia and hyperckemia.
Clinical Hypothesis: Respiratory failure due to new onset facioescapulohumeral dystrophy.
Diagnostic Pathways: It was quite appealing that the patient denied lack of breath although he had such low pulsyoxymetry values. In addition, respiratory involvement was only reported in 1% of cases of FSHD; indeed those cases had already an advanced extrarespiratoty involvement. Therefore, we performed an arterial gasometry which confirmed SatO2 88% but showed no hipoxemia and p50 value of 50 (twice its normal value); findings that suggested hemoglobin pathologies. Genetic tests confirmed both low affinity oxygen haemoglobin disease and FSHD. On the other hand, functional respiratory tests revealed no ventilatory anomalies.
Discussion and Learning Points: Evaluation of hipoxemia has to be always as systematic as possible, otherwise we may promp into numerous mistakes when we try to determine its etiology and, consequently, its treatment. In this case, we realised that the patient was not even hypoxemic; the problem concerned only the hemoglobin molecule, so no further intervention was required regarding to a possible neuromuscular respiratory involvement. Hemoglobin oxygen low affinity patologies are rare diseases whose main importance is that patients are aware of them so that unnecessary tests are avoided when low pulsioxymetry values, mild anemia or peripheral cianosis appear.

734 / #EV1063

PULMONARY MASS IN AN 18-YEAR-OLD PATIENT

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Case Description: An 18-year-old patient with a history of type I neurofibromatosis, who came to the emergency room due to symptoms of fever, cough and hemoptysis. An analysis is performed in which an increase in acute phase reactants and leukocytosis and a chest radiograph where a mass is observed in the upper lobe of the right lung. He was admitted and after performing a chest CT scan, it was observed that the mass, which measured 8.6 x 9.4 cm, did not depend on the lung parenchyma. After its removal and study in pathological anatomy, Schwannoma was diagnosed.
Clinical Hypothesis: Pneumonia would be the main diagnosis to take into account, due to symptoms and age of the patient. Even so, more complementary tests should always be carried out to refine the diagnosis. Taking into account the patient's history, the extra-pulmonary tumor would also be another possible diagnosis to consider.
Diagnostic Pathways: Extensive clinical history, personal history, complete laboratory tests with serology, chest X-ray, chest CT and fundamentally the pathological anatomy.
Discussion and Learning Points: This case is the perfect example of

 DOI: 10.12890/2022_V9Sup1

a disagreement between complementary tests and main diagnoses of lung mass and, on the other hand, a total concordance with the patient's personal history. Although rare, it must be borne in mind that type I neurofibromatosis is a hereditary disease that can express neurogenic tumors, as was the case in this case.

979 / #EV1064

MISTAKING SARCOIDOSIS: A RARE CASE OF GRANULOMATOSIS

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Case Description: A 63-year-old man with a diagnosis of extrapulmonary tuberculosis presented with fever, thoracalgia, weight loss, diffuse lymphadenopathy and a massive pleural effusion, despite the strict adherence to five months of anti-tubercular treatment. He had already undergone two hospitalizations for the same clinical picture. Extensive laboratory and radiologic investigations for possible autoimmune, infectious, hematologic and neoplastic conditions all resulted negative. A lymph node biopsy showed a granulomatous necrotizing lymphadenitis, suspicious for tuberculosis. Despite *Mycobacterium tuberculosis* (MT) was never isolated and tuberculin skin test resulted negative, therapy for tuberculosis was started. At admission to our ward, total-body CT and PET scans showed a progression of new disseminated nodular consolidations.

Clinical Hypothesis: Differential diagnosis for necrotizing granulomatosis included multidrug-resistant tuberculosis, Wegener granulomatosis, Churg Strauss syndrome, necrobiotic nodules of rheumatoid arthritis, lymphomatoid granulomatosis and necrotizing sarcoid granulomatosis (NSG).

Diagnostic Pathways: After microscopic and cultural search for MT and other micro-organism resulted again negative on urine, stool, blood, pleural fluid and spinal lesion biopsy, we started considering alternative diagnosis. Having already rejected other autoimmune, hematological and neoplastic disorders, NGS resulted the most consistent hypothesis. With an expert we thus re-examined histological specimens that were suggestive for an atypical presentation of sarcoidosis. Steroid therapy was initiated, achieving symptoms improvement.

Discussion and Learning Points: Sarcoidosis is a rare condition that can be challenging to diagnose, due to its variability in clinical presentation, often mimicking alternative conditions like disseminated tuberculosis. A high degree of suspicion and an experienced lab in anatomical pathology are essential for final diagnosis.

1325 / #EV1065

LEUKOCYTOCLASTIC VASCULITIS PRODROMAL TO BULLOUS PEMGHIGOID

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Case Description: 68-year-old-man presented with pruritic palpable purpura and erythematous plaques on lower limbs that extended to lower abdomen and arms. He reported urinary tract infection four days before the cutaneous manifestations, medicated with ciprofloxacin. No history of fever, arthralgia, myalgia, abdominal pain, diarrhea, weight loss or other symptoms.

Clinical Hypothesis: Is this a case of leukocytoclastic vasculitis associated to ciprofloxacin?

Diagnostic Pathways: History, examination, and clinical investigations (which included full blood count, urea, electrolyte, and liver function tests, autoantibodies) showed no systemic involvement, temporal relationship with the beginning of the antibiotherapy or other triggering factors. He presented consumption of complement factors, hypogamaglobulinemia and elevation of rheumatoid factor. Echocardiogram showed no signs of endocarditis. CT scan showed no alterations. Skin biopsy was suggestive of leukocytoclastic vasculitis. The patient's eruption improved with bed rest, but it relapsed a week later. The skin biopsy was repeated, and the immunofluorescence showed linear immunoglobulin G at the dermo-epidermal junction more suggestive of bullous pemphigoid. The patient started oral corticosteroid with total remission of skin lesions. Two months later, after corticosteroid weaning, he presented blisters predominantly in the upper limbs and trunk that responded well to an increase in corticoid dosing.

Discussion and Learning Points: Cutaneous bullous pemphigoid is the most common autoimmune blistering dermatosis in the elderly, although it remains largely undiagnosed. We present the case of a rare association between leukocytoclastic vasculitis prodromal to bullous pemphigoid. We highlight that direct immunofluorescence may be positive on skin biopsies taken before blisters manifest.

2394 / #EV1066

CEFTRIAXONE-INDUCED ENCEPHALOPATHY IN A PATIENT WITH CHRONIC KIDNEY DISEASE

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Case Description: A 56-year-old woman, without cognitive impairment and with a prior history of stroke and chronic kidney disease stage 5, presented to the emergency department after a sudden episode of lipothymia. Based on laboratory results the diagnosis of urinary tract infection with acute kidney failure AKIN III was made. The patient started ceftriaxone 2 g/id and was put

 DOI: 10.12890/2022_V9Sup1

on hemodialysis. Unexpectedly, she exhibited progressively deterioration of her neurological state and, ten days after the admission, apathy and brief periods of agitation and chorea were identified. Some mental improvements were noticed days later with subsequent recovery of the previous neurological state.
Clinical Hypothesis: Metabolic encephalopathy, seizure or nonconvulsive status epilepticus and acute lesions of the central nervous system were the main differential diagnosis considered.
Diagnostic Pathways: Head CT did not reveal any acute alterations or space-occupying lesions and the EEG showed moderate encephalopathy. There was no evidence of metabolic imbalance nor significant improvement after hemodialysis. These findings excluded all the main differential diagnoses first considered, so a retrospective analysis was made to consider other possible causes for the neurologic deficits. Hence, we realized that the improvement matched the fourth day of antimicrobial suspension, without any further alterations. A presumptive diagnosis of ceftriaxone-induced encephalopathy was made.
Discussion and Learning Points: This rare case pretends to alert physicians to the possibility of pharmacological encephalopathy, especially in vulnerable patients. In the future, studies might be conducted to establish ceftriaxone dose adjustments based on renal function and/or by monitoring its plasma concentrations.

1692 / #EV1067

BONE CHANGES IN TUBEROUS SCLEROSIS MIMICKING METASTASES

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Case Description: A 43-year-old female patient was sent for urgent consultation due to diffuse bone involvement and presence of osteoblastic lesions, in lumbar and thoracoabdominal-pelvic CT (TAP CT) and suspected bone metastasis. The patient as a known TSC with pulmonary, cerebral, cutaneous and renal involvement since 25 years old.
Clinical Hypothesis: Bone involvement in tuberous sclerosis; bone metastasis; primary bone tumor.
Diagnostic Pathways: TAP CT showed multiple cystic lesions involving all lung lobes, in the context of lymphangioleiomyomatosis. Left nephrectomy. Right kidney replaced by multiple nodular areas, corresponding to angiomyolipomas. Throughout the entire skeleton, multiple sclerotic images and lumbar CT scan revealed multiple osteocondensing lesions in all lumbosacral vertebrae and iliac bones. After comparison with previous exams, it was found that there was already a description of sclerotic/osteoblastic bone formations for at least 5 years.
Discussion and Learning Points: Tuberous sclerosis complex (TSC) is a multisystem genetic rare disease characterized by the presence of hamartomas in various organs, such as the brain, heart, skin, eyes, kidneys, lungs and liver. Bone changes in tuberous sclerosis are asymptomatic and present in up to 50% of patients. Although of minor clinical relevance, it is important to know about this rather frequent "rare manifestation" as bone sclerotic foci could be misinterpreted as bone metastasis which might result in unnecessary and potentially invasive assessments in spite being a common benign manifestation of TSC.

Boronat S, Barber I. Less common manifestations in TSC. Am J Med Genet C Semin Med Genet. 2018 Sep;178(3):348-354.

45 / #EV1068

RENDU OSLER-WEBER-SYNDROME, A DIAGNOSTIC AND TREATMENT CHALLENGE IN AN OUTPATIET- CASE REPORT

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Case Description: Rare diseases present fundamentally different challenges from those of more common diseases. Hereditary hemorrhagic telangiectasia (HHT) also known as Osler-Weber-Rendu syndrome is a rare autosomal dominant disorder, which results in vascular dysplasia affecting mainly visceral and mucocutaneous organs. A 53 year-old male with a 21-year history of recurrent spontaneous epistaxis presented with fatigability, intolerant to exertion. During the previous 15 days, he has experienced daily, three episodes of recurrent nasal bleeding. His family history was significant, the 73-year-old father and 18-year-old son having also epistaxis without diagnosis until now. Physical examination revealed intense sclerotegumentary pallor, telangiectases in the lips , tongue and nasal mucosa.
Clinical Hypothesis: The patient met criteria and had a definite hereditary hemorrhagic telangiectasia. His laboratory workup revealed a hemoglobin count of 6.5 g/dl. He was treated with blood transfusion, iron supplement, tranexamic acid, and nasal packing, at present having 8.5 -9.2 g/dl hemoglobin count.
Diagnostic Pathways: Abdominal ultrasonographic examination identifies hepatic arteriovenous shunts and signs of portal hypertension, an aspect confirmed by the tomographic examination. Echocardiographically the patient has severe pulmonary hypertension, no intacardiac shunts on transthoracic examination and no pulmonary arteriovenous shunt tomographically visible.
Discussion and Learning Points: The case poses diagnostic problems, the complete evaluation, including genetic tests, being necessary to identify specific complications Concerning the treatment to control epistaxis, and anemia as well, the patient did not benefit from surgical procedures limited clinical expertise and expert centers, neither possible effective medication because of any clear indication for this disease.

 DOI: 10.12890/2022_V9Sup1

619 / #EV1069

TICK BORNE ENCEPHALITIS (TBE) IN NORTH EAST OF GREECE

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Case Description: Tick borne encephalitisis (TBE) is a very rare disease in Greece.

Clinical Hypothesis: A 54-year old cattle man previous healthy, was admitted to our hospital with fever, chills, severe weakness, worsening headache, confusion, lethargy, nausea and vomiting, five days ago. The symptoms persisted despite taking ibuprofen. He denied any awareness of being recently bitten by arthropods, ticks or animals.

Diagnostic Pathways: Cardiac, pulmonary and abdominal examinations were normal. On neurological examination, neck stiffness, tremor of the limps and tongue recognized. Kernig's sign was positive. Laboratory examination showed leukocytosis, neutrophilosis and hyponatriaemia. CT-scan of brain was normal and lumbar puncture was performed. Cerebrospinal fluid (CSF) showed 55 leukocytes per mm^3 with lymphatic predominance, glucose 55 mg/dl and protein 0.66gl. The diagnosis of viral meningoencephalitis was made and a 10-day course of intravenous ceftriaxone plus vibramycin plus acyclovir, was began. All initial microbiological testing on CSF remained negative, including bacterial culture. PCR of CSF for EBV, CMV, TB, HVS I and II were negative. Based on the patient's job, detection of TBE Virus and West Nile Virus antibodies were performed in the Greek National Reference Centre for arboviruses and hemorrhagic fever. IgM and IgG serum antibodies of TBE were positive. The patient's symptoms slightly improved and on Day 14 he was discharged. After one month, all symptoms had resolved and 1gG antibodies were slightly increased witch confirmed the diagnosis.

Discussion and Learning Points: TBE should be included in the differential diagnosis in case of meningoencephalitis even in the absence of a tick bite which is only recognized by 50–60% of TBE patients.

2528 / #EV1070

CASE REPORT: INTRAHEPATIC ARTERIO-VENOUS SHUNT AS RARE CAUSE OF HEPATIC ENCEPHALOPATHY

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Case Description: 77 year-old woman, ECOG 2, diagnosed with cholangiocarcinoma. In December 2021 the patient was submitted to an exploratory laparotomy. During the procedure, tumoral mass resection was not executed due to invasion of the right hepatic artery. One week after surgery, the patient begins to show signs of disorientation. Two weeks after being discharged from the surgical ward, the patient is observed in the emergency room for altered mental status, confusion and fever. The patient was admitted to in-hospital treatment of pyelonephritis. Despite initial good response to antibiotics, on the 5th day of in-hospital treatment, the patient shows acute signs of confusion, apathy and flapping.

Clinical Hypothesis: The hypothesis of hepatic encephalopathy (HE) was considered and treatment with laxatives was started.

Diagnostic Pathways: Laboratory studies showed ammonia of 237 mmol/L. After treatment with laxatives there was a complete recovery of mental status. Therefore, we assumed the diagnosis of HE type II and proceeded with etiologic study. All causes of HE were excluded, with the exception of an intrahepatic arteriovenous shunt (IHS) visualized in the computed tomography angiography. We assumed the IHS as the cause of HE. Since there were no treatment options, the patient was oriented to palliative care due to disease progression.

Discussion and Learning Points: There are few reported cases of IHS in patients without previous liver disease. We bring this case to show the importance of considering this diagnostic hypothesis in patients presenting with encephalopathy, since embolization of these shunts might treat them effectively, preventing recurrence.

42 / #EV1071

AUTOIMMUNE HEMOLYTIC ANEMIA IN MULTICENTRIC CASTLEMAN DISEASE: CASE REPORT

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Case Description: Our study reports a 25-year-old male patient previously diagnosed with idiopathic Multicentric Castleman

 DOI: 10.12890/2022_V9Sup1

disease, admitted with a 6-day history of headache, shortness of breath, vomiting, inappetence and jaundice. In clinical examination, the patient presented cutaneous-mucosal pallor, mild jaundice and mild tachycardia.
Clinical Hypothesis: Laboratoy findings suggested the diagnosis of autoimmune hemolytic anemia by warm antibodies.
Diagnostic Pathways: The patient presented with a severe anemia with clinical and laboratory signs of hemolysis, with negative crioagglutinins. Platelet level was normal, there was no splenomegaly, fever, hypertriglyceridemia, hyperferritinemia, and coagulation disorders, therefore excluding other differential diagnosis such as hemophagocytic lymphohistiocytosis.
Discussion and Learning Points: Castleman's disease is a rare polyclonal lymphoproliferative disorder of B-lymphocytes and plasma cells that can manifest as unicentric or multicentric disease. Multicentric Castleman disease (MCD) is idiopathic in half of the cases. The etiology of idiopathic MCD is uncertain, but it is known that the overproduction of pro-inflammatory interleukins, especially IL-6, is implicated in the pathophysiology of the disease. MCD progresses with recurrent infections, including opportunistic infections and autoimmune manifestations. The occurrence of autoimmune hemolytic anemia, however, is rare. Monoclonal antibobody anti IL-6 receptor, tocilizumab, has proved a valuable therapeutic option in these patients. Our study reports a 25-year-old male patient previously diagnosed with idiopathic MCD presenting with autoimmune hemolytic anemia by warm antibodies, that achieved rapid and suistained response with systemic corticotherapy (4 mg/kg/day) and single dose tocilizumab (4mg/kg), with subsequentt tappering off the corticoid. The patient maintained regular returns after hospital discharge with monthly administration of tocilizumab (8 mg/kg) in monotherapy, with sustained response to date.

560 / #EV1072

PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY ASSOCIATED WITH HIV INFECTION DIAGNOSED BY BRAIN BIOPSY WITH REPEATED NEGATIVE PCR TESTING OF CSF JC VIRUS DNA

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Case Description: Female patient, 51 years old, ex-drug addict and chronic HIV1 infection, diagnosed 10 years ago with a history of opportunistic infections in the past and non-compliance antiretroviral therapy that goes to the emergency room due to a speech alteration and dysarthria which worsened in the last 10 days. She denied fever, altered state of consciousness, headache or other symptoms. On observation was stable with expression aphasia without other focal deficits. Analytical study without relevant changes. Brain CT: Subcortical left midfrontal hypodensity that seems to interest U fibers without mass effect.
Clinical Hypothesis: Admitted probable progressive multifocal leukoencephalopathy (PML).
Diagnostic Pathways: In the case study the cerebrospinal fluid (CSF) was innocent. PCR Testing of John Cunningham Virus (JCV) was negative and HIV viral load was negative. Brain MRI: with Left mid-frontal subcortical lesion that in the diffusion study has marginal restriction (active demyelination) - alterations compatible with PML. Despite antiretroviral therapy, as his clinical symptoms worsened and a new lumbar puncture was performed with a negative CSF study and PCR Testing of CSF JCV was negative. In the absence of a definitive diagnosis, an intracranial lesion biopsy was performed. Pathological anatomy with a result compatible with LEMP. Note that the PCR screening of JCV in the intracranial biopsy was negative.
Discussion and Learning Points: Brain biopsy should be considered for the clinical diagnosis of PML when CSF JCV is negative on repeated DNA PCR. Usually, the clinical outcome of patients with PML is poor with an inexorable progression to death within 6 months of symptom onset.

784 / #EV1073

A RARE ASSOCIATION BETWEEN LEFT VENTRICULAR NON COMPACTION CARDIOMYOPATHY AND ADULT POLYCYSTIC KIDNEY DISEASE

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Case Description: We present the case of a patient with heart failure with reduced left ventricular ejection fraction, diagnosed in the first instance by echocardiography and by cardiac magnetic resonance imaging method with left ventricular non compactation (LVNC). At the time of diagnosis, the patient also had mild renal impairment but a high erythrocyte and haematocrit level, inappropriate in this setting. JAK (Janus Kinase) 2 V617F mutation was absent, erythropoietin level was slightly increased, arterial O2 pressure level was normal and abdominal echography revealed bilateral polycystic kidney disease.
Clinical Hypothesis: The genes responsible for autosomal dominant polycystic kidney disease (ADPKD) development are PKD1 - coding for polycystin 1 and PKD2 - coding for polycystin. There are a few experimental data suggesting that polycystins might play an important role in cardiac development and hence PKD1 and PKD2 mutations may be involved in primary cardiomyopathies, explaining this particular association of LVNC cardiomyopathy and ADPKD.
Diagnostic Pathways: The patient had polycytemia, in sharp contrast with his symptoms (shortness of breath, hypertension,

 DOI: 10.12890/2022_V9Sup1

dyspnoea, lower limb edema). Jak 2 gene mutation was negative, however his serum erythropoetin levels were high. The echocardiography showed a pattern compatible with non-compaction cardiomyopathy, later confirmed by a cardiac MRI scan. The abdominal ultrasound showed a replaced renal and liver parenchyma with multiple cysts.
Discussion and Learning Points: Not every polycytemia is of an hematological nature. Ultrasound of the abdomen should be performed routinely. Hereditary case of non compaction cardyomiopathy and PKD which is very rare.

1247 / #EV1074

ALTERATIONS OF THE CHOLESTASIS PARAMETERS IN A PRECONCEPTION CONSULTATION

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Case Description: We present the case of a 35-year-old healthy woman who has forwarded to our consultation for alterations of the hepatic function. Intended to get pregnant.
Clinical Hypothesis: For the last eight years, the aminotransferases values were three times higher than the upper limit of normality (AST 150 iu/l; ALT 200 iu/l), also with an elevation of alkaline phosphatase (80 iu/l), gamma-GT (90 iu/l) and a decrease of alpha-1-antitrypsin (69 mg/dl – normal values between 88-174 mg/dL). Bilirubin levels were normal. She denied the consumption of tobacco, alcohol, herbal products or drugs. No drug or food allergies. Denies taking hepatotoxic drugs or prolonged courses of antibiotics. No recent travels.
Diagnostic Pathways: Copper, ceruloplasmin, ferritin and transferrin saturation were normal. Viral and autoimmune hepatitis were excluded, as well as HIV, syphilis, tuberculosis, among others. Abdominal ultrasound, CT scan, cholangiopancreatography and liver biopsy were normal. The genetic study ruled out the presence of mutations in the SERPINA gene, but not the possibility of rarer mutations. With an inconclusive extensive study, we requested the exclusion of rarer mutations. It was identified heterozygosity for the pathogenic variant c.1130.dup in the SERPINA gene sequencing. This was the most likely cause for the sustained elevation of transaminases and 50% alpha-1-antitrypsin activity. No clinical consequences are expected for the patient and future offspring. There is a 50% probability of transmission of the variant with pregnancy.
Discussion and Learning Points:Even with an extensive and exhaustive complementary study, it is important to continue the genetic study, when we don't have a diagnostic, in order to prevent future complications.

2609 / #EV1075

THE CLINICAL LABYRINTH OF CHRONIC GRANULOMATOUS DISEASES: NOT ONLY SARCOIDOSIS

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Case Description: Sarcoidosis and tuberculosis are two pathologies that in some cases share similar clinical features. In other cases the differential diagnosis appears more difficult, as these two pathologies can coexist or even mimic each other. Our diagnostic challenge began in November 2020, when a 22-year-old male patient with suspected sarcoidosis came to our observation, suffering from dysphonia and dry cough since 2019. The patient in 2016 presented a contact with a tuberculosis positive case in school environment, therefore at that time he began a prophylactic treatment with isoniazid, suspended after 3 weeks due to an increase in cholestasis indices. He had also previously undergone a laryngeal mass reduction surgery, whose histological examination described a picture of granulomatous laryngitis with sarcoid-like features with Ziehl-Neelsen staining negative.
Clinical Hypothesis: We ruled out autoimmune, neoplastic and infectious diseases.
Diagnostic Pathways: Then quantiferon TB-Gold test was positive such as the mycobacterium-oriented sputum culture examination. So we formulated the diagnosis of isolated laryngeal tuberculosis. Subsequently the patient undertook the specific antitubecular therapy with a remarkable clinical-instrumental improvement, associated with the regression of the laryngeal lesion, reaching at the end of the therapy itself the complete healing.
Discussion and Learning Points: This case suggests how deep the attention must be on the granulomatous diseases, which can coexist and even exclude each other, but at the same time can share some features. The chosen diagnostic arsenal is profoundly decisive for a correct clinical and therapeutic setting.

1600 / #EV1076

PULMONARY EMBOLISM IN KLINEFELTER SYNDROME

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Case Description: A 31 year-old male presented with suspected pulmonary embolism. Vital signs was normal, D-dimer 17 mg/L, and a chest CT showed central pulmonary embolism. Echocardiography showed signs of right ventricular strain. A

DOI: 10.12890/2022_V9Sup1

DVT was not diagnosed. He was treated with tinzaparin and later apixaban. Tests for coagulopathy was normal.
Clinical Hypothesis: Klinefelter syndrome (KS) is a genetic disorder in males caused additional X-chromosones, most commonly 47 XXY. The prevalence is 1/700 males and the syndrome is associated with increased morbidity. It is widely underdiagnosed. Lack of testosterone leads to the findings and a reduced testicular size is a defining trait. Patients can have mild or significant manifestations Cognitive symptoms can present in childhood. A reduced testicular growth after puberty leads to small testicular volume. Later on testosterone deficity often develops, leading to hypogonadism, i.e reduction of muscle mass, gynecomastia, obsesity and often infertility.
Diagnostic Pathways: There is an increased risk of serveral associated conditions in Klinefelter syndrome, e.g. venous thromboembolism (VTE). The mechanism is not clear, contributing factors are e.g defect fibrinolysis and increased platelet activation.
Discussion and Learning Points: Many patients with KS lacked the right diagnosis and it is a risk factors to consider in childless men with findings suggestive of hypogonadism and with unprovoked VTE. It is not clear if testosterone treatment itself is a risk factor for VTE in KS. Learning points: Klinefelter syndrome are underdiagnosed in males with venous thromboembolism. Klinefelter syndrome should be considered in childless men with unprovoked VTE. A careful clinical examination are the cornerstone in the diagnostic workup.

200 / #EV1077

GENERALISED LYMPHADENOPATHY IN ROSAI-DORFMAN´S DISEASE

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Case Description: Our patient is a 64 year old male without significant comorbidities, seeking medical help for 14 days of fever, night sweats, headache, bilaterally swollen lymph nodes of the neck, groin and axilae. Initial blood test showed leukocytosis 14x109, 117 g/l hemoglobin, thrombocytopenia 75x109, eosinophilia 4.16x109, CRP 103 mg/l, and mild elevation of liver enzymes.
Clinical Hypothesis: Primarily a hemathological disorder was considered.
Diagnostic Pathways: After ruling out an infectious etiology, focus shifted on malignancy and autoimmune disease. Following a bone marrow biopsy, that was negative, corticoids were administered with good effect. Biopsy of cervical lymphadenopathy was performed showing unspecific inflammatory changes. We then biopsied enlarged mediastinal lymph nodes. The first and second histological readings were identical. Bronchoscopy was crucial, as cytology was indicative of histiocytosis. Third review of histology proved the diagnosis of Rosai-Dorfman´s disease.
Discussion and Learning Points: There are several factors contributing to the prolonged diagnostic process. Patient´s age could have steered us towards a more probable cause: lymphoma, Rosai-Dorfman's disease is typically found in younger population. The rarity of the disease itself could be an important factor, as it may have not even been considered. This is supported by the fact, that only after a suspition for histiocytosis was made, the specific histological methods were applied. We also believe that administration of corticosteroids could have affected the appearance of histiocytes and the rate of emperipolesis, influencing the histological reading. We proved, that there are several key factors affecting any diagnostic process: interdisciplinary cooperation, frequent review of acquired results and revision of previously made conclusions.

746 / #EV1078

EAGLE SYNDROME: AN UNCOMMON CAUSE OF CHRONIC NECK PAIN

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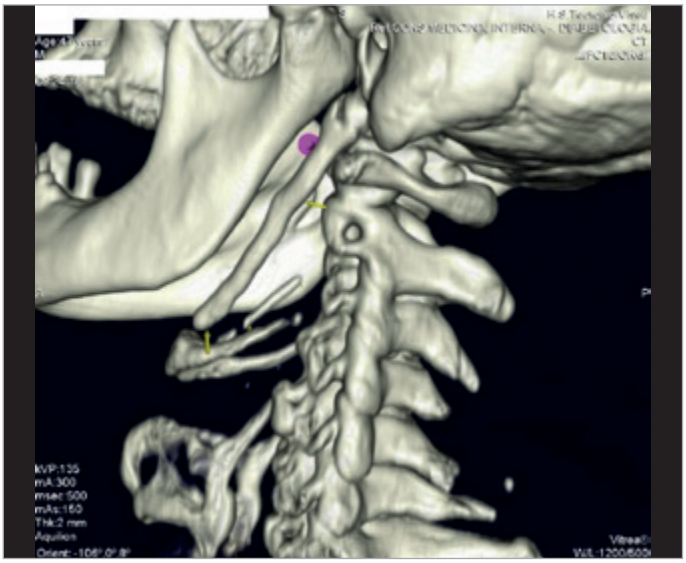
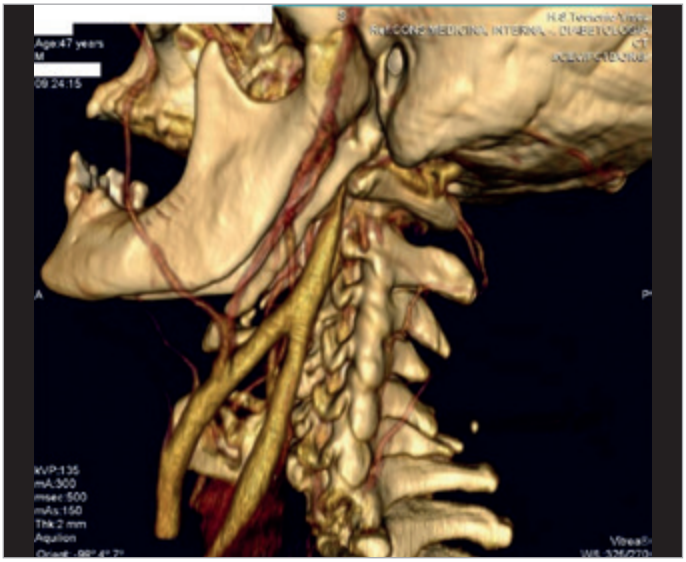
Case Description: A 47-year-old man, followed at an Internal Medicine – Diabetology consulta, had long lasting complains of left cervical pain and ipsilateral headache, that over the last 4 months had been progressively increasing and started to affect the left ear. Additionally, the patient mentioned dysphagia, pharyngeal globus, periorbital paresthesia and that all these symptoms were exacerbated with deglutition. During the physical examination, a hard and elongated formation was palpable in his left peri-amygdalin area. The cervical CT-scan revealed asymmetrical bilateral calcifications of the stylohyoid ligaments.
Clinical Hypothesis: Eagle syndrome; Horner's syndrome; lesions to the cervical vertebrae or muscular structures; migraine.
Diagnostic Pathways: Clinical history; physical examination; cervical CT-scan. (Figure 1-3).
Discussion and Learning Points: Eagle syndrome, first described in 1870 and named after Watt W. Eagle in 1937, is characterized by an abnormal calcification of any of the components of the stylohyoid apparatus (styloid process, stylohyoid ligament and lesser horn of the hyoid bone). According to Eagle's classification, there are two subtypes: the classic type, usually associated with amygdalotomy and the carotid artery type, caused by compression of the styloid process over the carotid artery thus leading to foreign body sensation and cervical pain. Eagle syndrome is an uncommon and relatively unknown condition that can constitute the differential diagnosis of chronic headache and neck pain. After consulting the literature, it seems that the majority of these patients go through various specialties and consults, before a final diagnosis is established. The definitive treatment is usually surgical since the pharmacological options do not produce long lasting effects.

 DOI: 10.12890/2022_V9Sup1



#EV1078 Figure 1.



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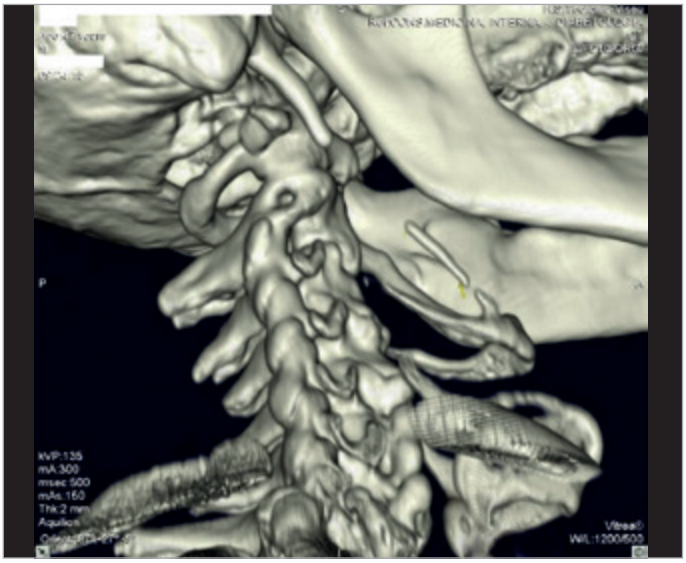

#EV1078 Figure 3.

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THIS RASH IS CANCER? – CARCINOMA ERYSIPELOIDES

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Case Description: A 58 year-old female presented with DVT and AKI on a background of T4N1B rectal cancer 2 months post-chemotherapy. On examination, patient had a well-demarcated, thickened, erythematous plaques on her abdomen and groin area.
Clinical Hypothesis: The rash resembles cellulitis or erysipelas, is warm on palpation with rough leathery texture, non-tender and non-pruritic. Dermatology consult was sought, initial impression was metastatic rectal cancer or cutaneous lymphoma.
Diagnostic Pathways: Biopsy of left inguinal nodes confirmed diagnosis of carcinoma erysipeloides (CE) from rectal adenocarcinoma on histopathology.
Discussion and Learning Points: CE is a rare form of cutaneous metastasis most commonly associated with breast cancer. It is the result of lymphovascular invasion of tumour cells causing dermal lymphatic blockage which can occur at any stage of disease. Whilst rectal adenocarcinoma commonly metastasizes to liver and lung, cutaneous metastasis can rarely occur in advanced disease. Healthcare practitioners should be cautious of new skin lesions in rectal cancer patients as it can be a sign of metastasis and associated with poor prognosis. Our patient passed away 2 weeks after the diagnosis. Skin biopsy is the gold standard of diagnosis. In addition to treatment of primary cancer, systemic chemotherapy and surgical resection for isolated lesion had been explored but no effective treatment strategies have been standardized.

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686 / #EV1080

PREVALENCE OF CANCER IN ACID SPHINGOMYELINASE DEFICIENCY

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Background and Aims: Acid sphingomyelinase deficiency (ASMD; OMIM# 607616), also known as Niemann-Pick disease types

DOI: 10.12890/2022_V9Sup1

A and B (or neurovisceral and chronic visceral ASMD), is a rare autosomal recessive lysosomal disease. Chronic visceral-ASMD is characterized by hepatosplenomegaly, secondary anemia and thrombocytopenia and interstitial lung disease (ILD) During the last years, an unexpected diagnosis of cancer was observed in several CV-ASMD patients referred to our tertiary center. The role of ASM deficiency in cancer development has already been suggested.
Methods: We retrospectively reviewed the medical records of the adult chronic visceral ASMD patients of our cohort and studied the incidence of cancer.
Results: 31 one patients (12 females; 19 males) were included with a median age of 48.7 years (IQ 30.3-55.1). 5 cancers were observed in 1 female (breast cancer), and 4 males (2 lung cancers, one thyroid cancer and one bladder cancer) leading to a prevalence of 16.1 %. The existence of cancer was associated with a more severe ASMD characterized by larger spleen (25 [22.5-25] vs 18 cm [17–20]; p=0.042); lower diffusing capacity for carbon monoxide (DLCO; 29.5 [17.8-43.0] vs 58.5 % [49.8– 69.5%]; p=0.01) and tobacco use (100 vs 45%; p=0.04). Three patients died, all from cancer (p=0.002).
Conclusions: We observed an abnormally elevated incidence of cancers in our CV-ASMD patients. The severity of the disease appeared correlated with the risk of cancer. Systematic screening for cancer should be performed and carcinogenic substances such as tobacco should be avoided in ASMD patients.

393 / #EV1081

HOME TREATMENT OF INFECTED CHRONIC ULCER IN PATIENTS WITH OSSIFYING MYOSITIS

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Case Description: Progressive ossifying myositis (MOP), or progressive ossifying fibrodysplasia (PFO), is a rare disease, with less than 2000 cases described, autosomic dominant and with variable expressiveness, with sporadic cases. The formation of heterotopic bones involves tendons, facias, aponeurosis and muscles. The patient presents edema, due to inflammatory processes, which are calcifying, with loss of mobility of the affected region. This sometimes produces ulcers from trauma, being difficult to heal due to the basic histological changes. We present the case of a 38-year-old patient with an MOP undergoing treatment with oral lepicortinolo and who has had a chronic ulcer on the inner and posterior face of the right leg since 2010. He has performed numerous unsuccessful treatments including graft, vacuum and hyperbaric medicine. There are also numerous antibiotic treatments for ulcer over infection, presenting various nosocomial complications.
Clinical Hypothesis: Infected chronic ulcers in a patient whith progressive ossifying fibrodysplasia.
Diagnostic Pathways: Culture of wound exudate.
Discussion and Learning Points: We were referred to the patient by Surgery due to infection of the ulcer by P*seudomona aeruginosa* sensitive to gentamicin, ceftazidima and piperacillin tazobactam. Treatment with gentamicin was given at 240 mg per day e.v. and dressings were performed alternately with Aquacel Extra. At the end of the treatment, he presented a slight improvement in epithelialization, denegativizing the exudate of the ulcer. The patient was referred to the UCCI of the area of residence. In this patient, intravenous home antibiotic treatment allowed avoiding conventional hospitalization, with psychological and health gains, avoiding nosocomyal infections as had already happened in previous hospitalizations.

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BEHIND THE GONALGIA

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Case Description: A 67-year-old-woman, with hypertension, depression and ankle dislocation, presented with knees pain over 2 months. Magnetic resonance imaging reported gonarthrosis, meniscal tear and probable bone secondaryization. Bone scintigraphy revealed intense and heterogeneous osteoblastic activity in the spine and lower limbs, particularly in the knees, suspecting bone metastasis. Bone biopsy demonstrated the presence of inflammatory infiltration and extensive fibrosis involving fat tissue and many xanthomatous histocytes. Immunohistochemical staining was positive for CD68 and negative for CD1a and S100. The molecular study identified the BRAF V600 mutation that confirmed the Erdheim-Chester disease (ECD). The findings within full-body 18F-fluorodeoxyglucose positron emission tomography – computed tomography (FDG PET-CT) showed high captation at diametaphyseal regions of the femur and tibia, and stomach; the thoracic aorta was enlarged. The patient was referred on to specialist center.
Clinical Hypothesis: The first hypothesis was a bone neoplasm, although the biopsy confirms the ECD.
Diagnostic Pathways: To confirm the diagnosis of ECD is essential a clinical finding (typical manifestations of bone involvement, hairy kidney, coated aorta or right atrial pseudo-tumor) and at least one histopathological (foamy or lipid-laden histiocytes admixed with fibrosis, positive for CD68 or CD163 and negative for CD1a) or molecular findings (BRAF V600 or other gene along the MAPKinase pathway mutation).
Discussion and Learning Points: ECD is a rare histiocytosis and challenging disease due to multisystemic presentation, unusual tissue tropism and insidious onset, so is required a high level of suspicion. New target-treatments can be a new hope for ECD patients.

 DOI: 10.12890/2022_V9Sup1

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PUDENDAL NERVE NEURALGIA, AN UNDERDIAGNOSED CAUSE OF CHRONIC PAIN

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Case Description: A 48-year-old man with no relevant history presented anal pain, located in the posterior center of the anus without laterality, of almost a year and a half of evolution without a trigger.

Clinical Hypothesis: The symptoms were fluctuating, denying fecal or urinary incontinence or sexual dysfunction. It worsens with decubitus, sitting, occasionally ejaculation or defecation and improves with standing.

Diagnostic Pathways: Neurophysiological evaluation was requested and the different terminal branches of the pudendal nerve were studied bilaterally (dorsal penile nerve, motor branches of the perineal nerve and inferior rectal nerve), observing parameters within the limits of normality. All Nantes essential clinical criteria are met (Must meet 2 essential criteria or one essential and two complementary criteria) for pudendal neuralgia (PNN) except blockade that has not been performed and several of the additional ones with neurophysiological examination of pudendal normal.

Discussion and Learning Points: PNN is a rare cause of pain in the pelvic floor that affects the quality of life of patients that can be presented by mechanical, infectious or immunological processes. Treatment should be sequential and it includes: drugs, pelvic floor rehabilitation, infiltrations with corticosteroids, botulinum toxin, neurolysis, radiofrequency, and even decompressive nerve surgery. For neuropathic pain, which is the main symptom, amitriptyline, gabapentin, or pregabalin are used along with anti-inflammatory pain relievers, lidocaine gel or patch, and opioids.

Our patient had an excellent response to amitriptyline 24 mg daily. An early diagnosis will allow better treatment options for patients and an improvement in their quality of life.

2421 / #EV1084

A 42 YEARS OLD WOMAN WITH ARTHROMYALGIA

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Case Description: A 42-year-old woman came to the emergency room for arthromyalgia and choluria. She does not have personal medical history of interest except for a diagnosis of fibromyalgia. She refers dark urines without urinary symptoms and severe arthralgia and myalgia. It was not the first episode. On physical examination there was pain and weakness in muscles more intense in the pelvian/shoulder girdle. In the blood tests, serum elevation of creatine kinase (33162), LDH (1115) and GOT (951) was observed.

Clinical Hypothesis: According to the clinic the clinical hypothesis was a myopathy.

Diagnostic Pathways: Toxics, drugs, as well as trauma and excessive physical exercise were ruled out. An echocardiogram and electromyogram were performed with normal results and a blood test with negative autoimmunity. A paraneoplastic and autoimmune origin was discarded and a metabolic myopathy was suspected. Finally, a genetic study was carried with pathogenic mutations in a gene associated with carnitine palmitoyltransferase II deficiency.

Discussion and Learning Points: Carnitine palmitoyltransferase II deficiency is an autosomal recessive disorder that affects the oxidation of long-chain fatty acids. It should be suspected in patients who present recurrent myalgia crises accompanied by myoglobinuria in relation to physical exercise, prolonged fasting, exposure to cold or stress. Analytically, the elevation of long-chain acylcarnitines in the blood is characteristic, although the diagnosis is established through a genetic study. Treatment is based on a high-carbohydrate, low-fat diet and the prevention of triggering factors such as fasting and prolonged physical exercise and some drugs.

2422 / #EV1085

A 49 YEARS OLD WOMAN WITH LOWER BACK PAIN AND HEMATURIA

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Case Description: A 49-years-old woman with a history of chronic obstructive pulmonay disease without treatment with other medical records, came to the medical office for several months' symptoms of lower back pain and occasionally gross hematuria. The physical examination and a rutine blood test including creatinine did not show alterations. It was also done a urine sediment without microscopic hematuria.

Clinical Hypothesis: Hematuria under study.

Diagnostic Pathways: A second blood test including autoimmunity and serology was done which did not show pathological results. The study was completed by the realization of a body CT who showed a compression of the left renal vein by the superior mesenteric artery, with perirenal varices as well as adjacent to the hilum. Finally, according to these results and the clinic of the patient a nutcracker syndrome was diagnosed and the patient was referred to the surgery for valuation.

Discussion and Learning Points: The nutcracker syndrome refers to compression of the left renal vein, most commonly between the aorta and the superior mesenteric artery. Hematuria, pain, pelvic varicosities, and varicoceles are the most common clinical signs that should raise suspicion for the diagnosis. Many young patients are asymptomatic or have a benign clinical course and may outgrow their symptoms. Those with serious impairment or severe symptoms may benefit from a surgical or intravascular intervention.

DOI: 10.12890/2022_V9Sup1

1687 / #EV1086

ACUTE COMPARTMENT SYNDROME IN A YOUNG MALE DIAGNOSED WITH TYPE 1 NEUROFIBROMATOSIS (NF1).

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Case Description: 39-year-old male with NF1 and an upper-limb amputation due to spontaneous haematomas and compartment syndrome. He consulted the emergency department with pain, ampoulous lesions and erythema on the stump. Vital signs, physical exam and laboratory tests were normal (including acute phase reactants - APR - and hemoglobin).
Clinical Hypothesis: First of all, vascular causes: arterial or venous thrombosis, peripheral embolisms, soft tissue haematomas and arterial aneurysms could explain the clinical findings. Moreover, neoplasms should be taken into account as a cause of pain in NF1 patients (vascular, soft tissue or neural). In third place, infectious complications (cellulitis or necrotizing fasciitis) should be borne in mind although the absence of fever and normal APR are against it. Finally, other less frequent causes such as complex regional pain syndrome or fasciitis-panniculitis syndrome were also considered.
Diagnostic Pathways: An angio-CT was made and it showed soft tissue inflammation on the stump without vascular complication. In five days, the patient worsened and an emergent CT was performed. It showed active hemorrhage on the stump and he was operated. A biopsy of the stump, including a sample of muscle tissue, was also implemented. A vascular PEComa associated with a venous malformation was the final diagnosis.
Discussion and Learning Points: PEComa is a rare perivascular tumor whose extra-abdominal localisation is extremely infrequent. However, lower extremities cases have been reported. Spontaneous haematomas in NF1 are also described secondary to aneurysms or plexiform neurofibromas. Our case emphasizes the importance of Pathology on the diagnostic pathway in NF1 complications when any vascular cause is evident on imaging.

582 / #EV1087

CHILAIDITI SYNDROME - AN EMERGENCY ROOM FINDING

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Case Description: 56 year old male, autonomous with background of cognitive deficit, asthma, high blood pressure and obesity. Subject entered the Emergency Services due to dyspnea and constipation, with no other complaints. In the thoracic radiography elevated diaphragmatic domes, blurred diaphragma limits, and chilaiditic sign were observed. In the thoracic CT scan, there were signs of small consolidation areas at the right costovertebral gutter, drawing areal bronchogram inside, and showed the colon's position between the right hemidiaphragm and the liver's upper side (sign of Chilaiditi). The patient started bronchodilator therapy due to the asthma and enema's for the constipation. The patient was discharged due to improvements in his condition.
Clinical Hypothesis: Mechanical, drug-induced, degenerative, metabolic, endocrinological, neurological and psychiatric causes of constipation.
Diagnostic Pathways: Abdominal CT scan with contrast confirmed the syndrome, but without complications. No sign of intestinal occlusion was found although the presence of fecalomas in the rectum was seen.
Discussion and Learning Points: The Chilaiditi sign is the presence of a loop of large intestine in the hepatodiaphragmatic space. When associated with symptoms (abdominal pain, dyspnea) is named Chilaiditi syndrome. In this case the presence of this sign and syndrome was found. Chilaiditi syndrome's etiology is usually unknown and is most likely due to multifactorial origin. In the presence of a patient with Chilaiditi sign and no symptoms, no treatment is required. The treatment is usually conservative, with laxatives, rest and hydration. We should always think about this syndrome in the differential diagnosis of other conditions (bowel perforation is the classical example), to prevent unnecessary surgical interventions.

387 / #EV1088

UNEXPECTED CASE OF A DIGESTIVE, RENAL AND CARDIAC AMYLOIDOSIS AA IN A YOUNG WOMAN PREVIOUSLY HEALTHY

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Case Description: Patient without relevant diseases came to Urgency several times because abdominal pain. She has got a gastroscopy, getting the information about an H.Pylori chronic infection. 6 months after the treatment, abdominal pain continued with hiporexia, diarrhea with non-pathological products, vomits, losing 20 Kg, and lately with malleolar edemas. Her physical cardiac, respiratory and abdominal examination was normal. The only relevant positive signs were edemas in legs and abdominal pain in right side. Laboratory evaluation pointed out only a decrease in the glomerular filtration to 44 ml/min, creatinine 115 mg/dL, with negative serology for HIV, HCV, HBV. She had an abdominal Tomography which gave us the information about an inflammation in small intestines and mesenteric fat. The study of the feces in the patient was negative for infection. An echocardiography and a colonoscopy were made.
Clinical Hypothesis: With such lab results, a previous history of abdominal pain, lost weight and diarrhea, and taking into account the negative results for infections and the absence of fever, the

 DOI: 10.12890/2022_V9Sup1

hypothesis of a systemic disease in the walls of the small intestine was considered.
Diagnostic Pathways: A colonoscopy with biopsies was performed to reveal the presence of deposits in small intestine´ walls which in microscope with congo-red were positives, with green birefringence. After that the echocardiography reveals a biventricular subendocardial involvement pattern
Discussion and Learning Points: She was diagnosed with amyloidosis AA, due to the several affected systems the patient get a cardiogenic shock and became dead

2531 / #EV1089

STEVENS - JONHSON SYNDROME / TOXIC EPIDERMAL NECROLYSIS – WHEN EVERYTHING CAN GO WRONG

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Case Description: An 88-year-old independent woman, suffered a fall with traumatic brain injury, with subsequent development of neurological deficits, for which she was diagnosed with subdural hematoma in the left convexity. She underwent craniotomy and 1 month later was reoperated for drainage of the subdural empyema. A *S. aureus* was isolated and vancomycin was started for 4 weeks. While performing the treatment, without adding new drugs to the usual therapy, the antibiotic reached high and toxic serum levels, and at the same time, a rash with blisters emerged and rapidly turned into a generalized epidermolysis in at least 20% of the body, including the oral mucosa, which is why a Stevens-Johnson's Syndrome/toxic epidermal necrolysis was assumed. In collaboration with plastic surgery at the hospital, vancomycin was discontinued and the patient started supportive treatment: management of dehydration and proper wound care.
Clinical Hypothesis: Stevens-Johnson's Syndrome/toxic epidermal necrolysis, adverse drug reaction, viral exanthem, bullous pemphigoid and autoimmune blistering diseases (e.g., pemphigus vulgaris, IgA dermatosis)
Diagnostic Pathways: Clinical evolution and history of events; collaboration with plastic surgery; blood tests with elevation of inflammatory parameters with high levels of vancomycin; no skin biopsy.
Discussion and Learning Points: Stevens-Johnson syndrome/toxic epidermal necrolysis is a rare disease that cause destruction of the skin and mucous membrane. With this case, it is intended to emphasize the importance of contemplating different etiologies of this syndrome, aldo most of the times, it is impossible to identify the exact one, since it can be caused by medication, infection or both.

946 / #EV1090

SYSTEMIC LUPUS ERYTHEMATOSUS AND COMMON VARIABLE IMMUNODEFICIENCY: A CASE REPORT

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Case Description: An 18-year-old patient was diagnosed with SLE in 2011 (at the age of 9). She was put on corticosteroids. Immunosupressants were introduced in 2012. The patient also received an anti-CD20 treatment.Throughout those years, several infections occurred including: pulmonary infections, systemic candida infection and Herpes zoster. The laboratory tests showed a hypogammaglobulinemia that was thought to be a consequence of taking the anti-CD20 treatment.The patient also kept developing articular and hematological relapses of her Lupus every 2 months. In October 2020, she was admitted for bacterial bronchial infection although she was no more on the anti-CD20 therapy for the past 18 months. Laboratory findings included a low serum IgG level of 121 mg/dL, a low Ig A level of 10 mg/dL and an Ig M level of 141 mg/dl, thus the diagnosis of CVID was made.The patient was put on monthly cures of veinoglobulins and eventually went into remission. No other episodes of infection or relapses of her SLE were observed.
Clinical Hypothesis: Systemic lupus Eeythematosus (SLE) is characterized by high levels of autoantibodies. Common Variable Immunodeficiency (CVID) is related to a defect in antibody production which leads to low levels of immunoglobulins. The physiopathology that explains the association SLE-CVID remains unclear.
Diagnostic Pathways: The association of these two entities is rarely reported in the literature, we presented a new case.
Discussion and Learning Points: It is an association that should be mentioned in lupus patients who have recurrent infections especially that immunoglobulin deficiency can result from immunosuppressive treatment and thus lead to a delay in the diagnosis of CVID.

 DOI: 10.12890/2022_V9Sup1

1221 / #EV1091

VASCULAR INVOLVEMENT IN BEHÇET'S SYNDROME: THE EXPERIENCE OF AN INTERNAL MEDICINE DEPARTMENT

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Case Description: Behçet's Syndrome (BS) is a vasculitis that can affect veins and arteries. Vascular involvement in BS presents commonly as a venous thromboembolism.
Clinical Hypothesis: We assessed the differential clinical features between two groups of patients diagnosed with BS, with and without vascular involvement.A retrospective analysis of the medical records of 60 patients was performed.
Diagnostic Pathways: The mean age at diagnosis of BS was 34.02 years. Skin mucosa lesions were described in 59 patients (98.3%). Eye lesions 23/60 and arthralgia 27/60 were described in 38.3% and 45% of cases respectively. 33.3% of patients had neurological symptoms. Vascular involvement was observed in 32 patients (53.3%), of whom 31 men and 1 woman. Venous thromboembolism was most common (78.1%). Patients with vascular involvement had cutaneous signs in 100% of cases, joint complaints in 37.5% of cases (p=0.21) and ocular signs in 34.4% of cases (p=0.5). Neurological involvement was found in 37.5% of cases (p=0.46). The vascular involvement was associated with cardiac lesions in 15.6% of cases (p=0.029). All patients with cardiac involvement had vascular involvement and the association between these 2 types of symptoms was found to be statistically significant. Besides colchicine, 26 of patients with vascular involvment were put on steroids (81.3%), of whom 20 patients went into remission (87%). Only 20 patients received immunosuppressants (62.5%).
Discussion and Learning Points: In our study, there is a significant association between vascular and cardiac involvement, thus a special attention should be given to screening for cardiac involvement as part of the overall assessment in patients with BS, even when the patient is asymptomatic.

653 / #EV1092

WHEN GENETICS GUIDES THE DIAGNOSIS

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Case Description: 68-year-old patient of Syrian origin followed up by the Nephrology service for KDIGO G3bA1 kidney disease secondary to no-AL, no-ATTR amyloidosis- biopsy-confirmed. Admitted to the emergency department for fever of unknown origin. No others complaints. Laboratory testing revealed inflammatory syndrome , kidney function disturbed (GFR 26 mL/min), normal liver and thyroid function tests, negative blood and urine cultures. Negative autoantibody. SARS-CoV-2 negative. Thoracic and abdominal imaging unremarcable.
Clinical Hypothesis: Infectious disease; Autoimmune: autoinflammatory disease; Neoplastic disease: all assessments were negative.
Diagnostic Pathways: Aside from this incidental finding, a more detailed anamnesis revealed that he experienced recurrent febrile episodes lasting one to two weeks, two-three times by year, in addition to diffuse arthralgia, progressive hypoacusis and intermittent urticarial rash. In this context, further genetic studies demonstrated heterozygosity for NLPR3: c.977G>T, p.(Gly326 Val). A diagnosis of Muckle-Wells syndrome was made and we inciate treatement with IL-1ß inhibitor.
Discussion and Learning Points: Autoinflammatory diseases (AID) are rare disorders characterized by hyperactivation of the innate immune system in the absence of microbial infection or autoantibody production. This results in chronic systemic and organ inflammation that can lead to AA amyloidosis and secondary chronic kidney disease. Cryopyrin-associated periodic syndrome (cryopyrinopathies - CAPS) represents a spectrum of AID with autosomal dominant inheritance which include three overlapping phenotypes, one of which is Muckle-Wells syndrome. These phenotypes have in common a mutation in the NLRP3–gene which encodes for NLRP3 protein or cryopyrin, responsible for NLRP3 inflammasome activation and overproduction of IL-1ß. Early recognition of CAPS is essential for administration of appropriate therapy.

1432 / #EV1093

SAME PHENOTYPE WITH DIFFERENT GENETIC BASIS

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Case Description: We present 3 cases of patients with subcutaneous nodules (Hurley I or II), stigmata of Verneuil disease in the cicatricial phase. They have also recurrent abdominal pain, recurrent arthralgia. One patient presents recurrent deep venous throbosis of lower limbs, with negative exhaustive thrombophilic study. Another presents a Behcet phenotype.
Clinical Hypothesis: Behcet disease, Crohn's disease, sarcoidosis , spondiloarthropathy.
Diagnostic Pathways: Clinical observation; biopsy; genetic analysis: a pathogenic variant of CECR1 gene, typical for adenosine desaminase 2deficiency (one case) - mutations in MEFV gene (exon 2 and exon 10), specifics for Pyrin-associated autoinflammatory disease; Familial Mediterranean Fever (PAAD- FMF)- two cases.
Discussion and Learning Points: Verneuil disease (VD) or hidrosadenitis suppurativa is a chronic, inflammatory dermatological disease that progresses in flare-ups. VD manifests as painful subcutaneous nodules; abscesses and itching are often associated. Can be associated acne conglobata, Crohn's disease or/and joint inflammation. VD It is a non-life threatening disease, but is very painful, embarrassing and disabling on an

 DOI: 10.12890/2022_V9Sup1

individual and social level Autoinflammatory diseases (AID) are inflammatory phenomena linked to local factors (exogenous or endogenous) that involve the activation of innate immune system. They occur in a cyclic, stereotyped form and manifest themselves by symptoms combining fever and mainly skin, abdominal, joint signs and seritis. The cases are presented to draw attention to the importance of recognition of VD and its early management, in order to avoid recurrent abscesses and scarring, a source of complexes and exclusion. We discuss the relevance of classifying VD as an autoinflammatory disease, which opens new therapeutic perspective

1434 / #EV1094

RECURRENT APHTHOSIS

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Case Description: The authors present a series of 7 cases of recurrent aphthosis, with cutaneous, oesophageal and genital manifestations. We analyse the diagnostic procedure, the different aetiologies and the treatments according to aetiology .
Clinical Hypothesis: Vitamin B12, folic acid, Fe deficiency.Viruses (HIV, EBV). Inflammatory enterocolitis. Behcet's disease. Sweet's syndrome. Autoinflammatory diseases (Familial Mediterranean Fever, mevalonate kinase deficiency, PFAPA). Autoimmune diseases (pemphigus vulgaris, celiac disease).
Diagnostic Pathways: Clinical signs; laboratory data (+ auto-antibody research); histological features; gastro-colonoscopy; genetic analysis
Discussion and Learning Points: Depending on the location and extent of the canker sores, recurrent aphthosis is a serious and potentially life-threatening condition when not detected correctly. This disease is more frequent among people of Mediterranean origin. For our 7 cases, the revealed etiologies were: Behcet's disease, FMF, PAAND-FMF, Mevalonat Kinase deficiency, *Pemphigus vulgaris*. The treatments used according to the etiology were: colchicine, interleukin inhibitor, corticoids, Rituximab In the series presented we draw attention to the need for a correct etiological diagnosis, for adequate management and treatment. The importance of history-taking and genetic analysis in the detection of autoinflammatory diseases and the detection and titration of anti-desmoglein 1 and 3 antibodies in the management and follow-up of pemphigus vulgaris is emphasised.

2441 / #EV1095

NEUROFIBROMATOSIS TYPE 1 – A LATE BUT FAITHFUL PORTRAIT

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Case Description: A 54-year-old male was observed on the Internal Medicine consultation after excision of a facial papular lesion – the histological results were compatible with a neurofibroma. The patient had similar lesions on his face and trunk since his adolescence, as well as his family members. On physical examination, eight café au lait lesions were identified of the patient's back, as well as many neurofibromas on the patient's trunk and face, and bilateral axillary ephelides.
Clinical Hypothesis: After this observation, the clinical hypothesis of Type 1 Neurofibromatosis seemed likely.
Diagnostic Pathways: A thoracoabdominopelvic computed tomography scan, and a brain and lumbar spine MRI were performed, excluding visceral neurofibromatosis.
Discussion and Learning Points: When applying the National Institute of Health criteria, the presence of ≥ 6 café au lait lesions, axillary ephelides, and ≥ 2 neurofibromas in various locations, as well as a family history, confirmed the diagnosis of Neurofibromatosis type 1 (NF1). This case is of particular interest due to the late identification of the diagnosis as well as the full spectrum of documented cutaneous manifestations.

1013 / #EV1096

PERSISTENT DROWSINESS IN COPD CONCLUDES WITH SERPIN 1 GENE MUTATION

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Case Description: A 57-year-old woman admitted to the hospital due to drowsiness and dyspnea, a history of COPD with exposure to biomass from cooking with firewood for 40 years, to the examination with a barrel chest and crackling rales with persistent drowsiness, causes of drowsiness such as hypoglycemia, hyponatremia are corrected , hypercapnea and hypoxemia and he continues with drowsiness, analyze the liver and he has liver cirrhosis, treatment for hepatic encephalopathy is started and the drowsiness is corrected. normal alpha 1 antitrypsin levels and for not explaining COPD and cirrhosis we requested serpin1 gene resulting positive MZ variant.
Clinical Hypothesis: The clinical hypothesis is that we can find normal levels of alpha 1 antitrypsin (AAT) in alpha 1 antitrypsin deficiency disease and the guidelines mention that for the MZ variant serpin1 mutation the levels should be low but in this case the patient was in an acute pulmonary inflammatory state which normalized the levels of AAT.

 DOI: 10.12890/2022_V9Sup1

Diagnostic Pathways: We corroborated COPD with a pulmonary CT scan that showed honeycomb images, interlobular thickening and air entrapment. Single breath diffusion test at 38%, Echocardiogram with heart failure and cor pulmonale. Ecosonogram of the liver with changes compatible with liver cirrhosis. ATT Levels and Genotype for AAT Deficiency Positive for MZ Variant.

Discussion and Learning Points: Drowsiness led us to analyze the liver already with Child-Pugh A cirrhosis. When we did not find a cause of cirrhosis, we analyzed the serpin 1 gene, resulting positive for the MZ variant, explaining COPD and liver cirrhosis.

2208 / #EV1097

PATIENT WITH ANAEMIA AND RENDU-OSLER-WEBER SYNDROME

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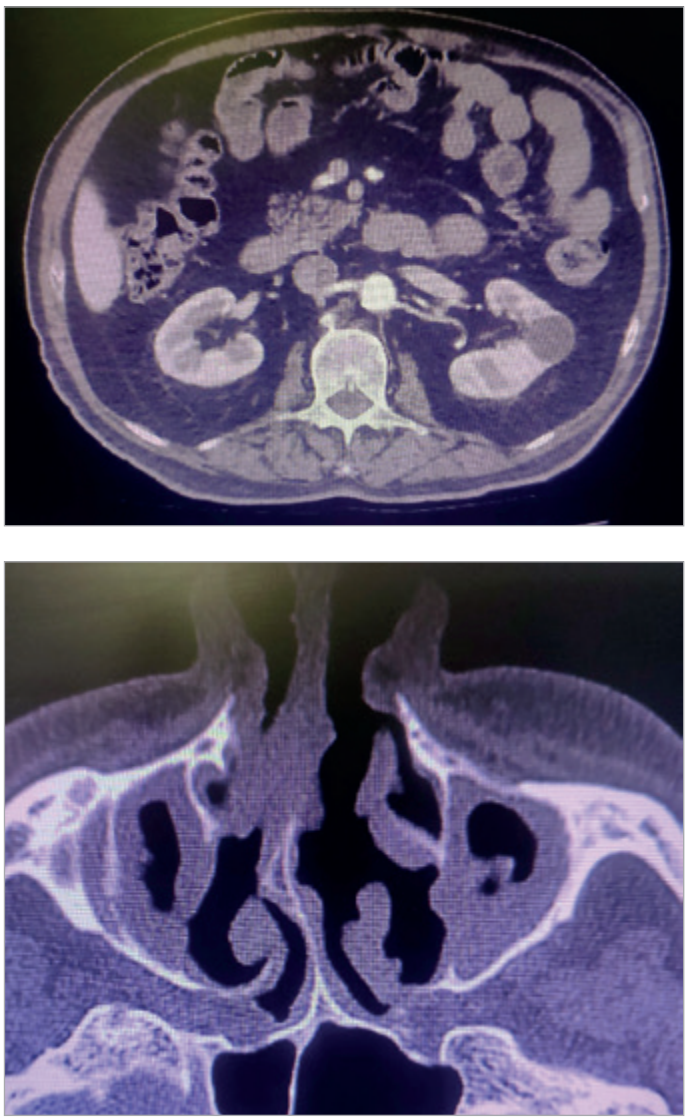
Case Description: 74-year-old man with hereditary hemorrhagic telangiectasia type I who consulted for severe asthenia, detecting Hb 7 mg/dl.

Clinical Hypothesis: Gastroscopy showed multiple vascular malformations of variable size without active bleeding, electrofulguration treated with argon gas and metal clips, duodenum and gastric upper body. In colonoscopy, several angiodysplasias without stigmata of recent bleeding. Treatment is supportive. During endoscopy, it is important to highlight the importance of identifying the active bleeding point and to perform argon plasma coagulation treatment on the same.

Diagnostic Pathways: CT without Contrast I.V. of paranasal sinuses finded marked mucosal thickening in both maxillary sinuses, which extend towards the drainage ostium, on the right side with possible expansion and extension towards the region of the turbinates and choanae. Abdominal and chest CT was performed with chronic cicatricial changes in the right pulmonary apex and simple kidney cysts (Figure 1).

Discussion and Learning Points: Hereditary hemorrhagic telangiectasia (HHT) or Rendu-Osler-Weber syndrome is one of those entities considered ”rare diseases” (affects one in 3,000-8,000 individuals) whose autosomal dominant inheritance is determined by the alteration in the coding of endoglin and activin like Kinase1 genes that cause HHT type 1 and 2 respectively and lead to dysplasia in the endothelium of the vascular wall due to haploinsufficiency for endoglin. This gives rise to a series of clinical manifestations that basically consist of repeated epistaxis, mucocutaneous telangiectasias and visceral arteriovenous malformations.



#EV1097 Figure 1.

2210 / #EV1098

MORGAGNI STEWART MOREL SYNDROME: HYPEROSTOSIS FRONTALIS INTERNA.

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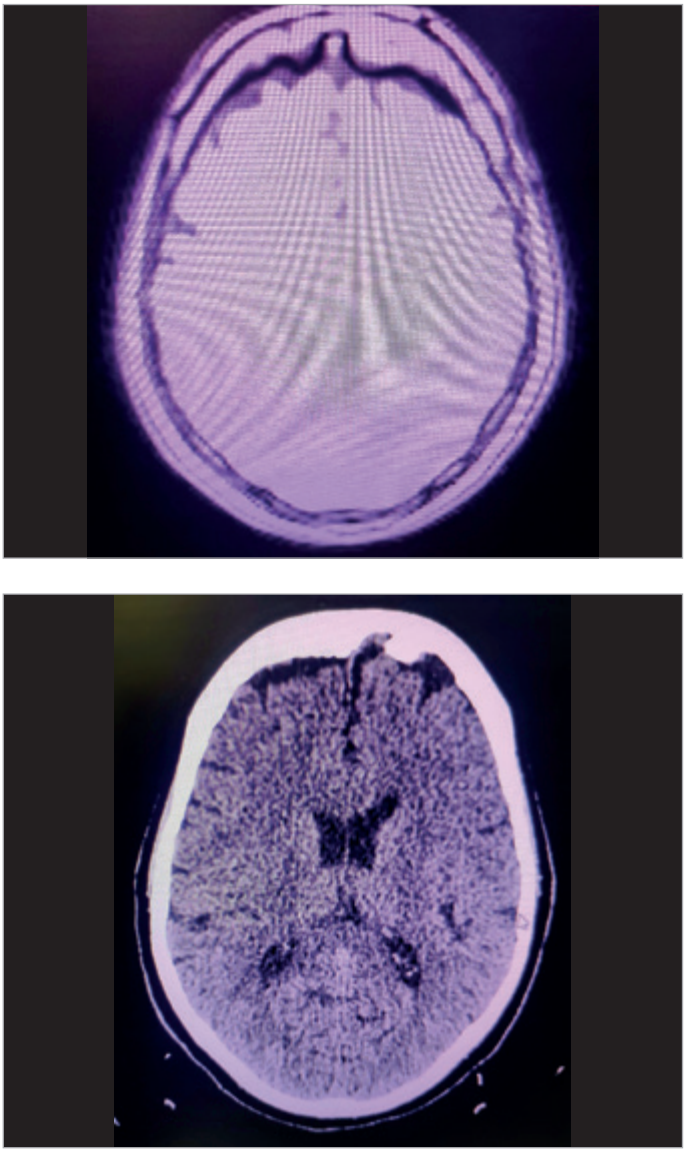
Case Description: 68-year-old woman with head trauma collapsing at the occipital level without consciousness lost. 24 hours later was still feeling dizzy with turning of objects and vomiting with previous vertigo episodes.

Clinical Hypothesis: Physical exploration with dizziness with turning-objects sensation. Neurological examination without meningeal signs, normal cranial nerves and pupils and photomotor reflex. Normal motor coordination and muscle strength. Preserved sensitivity. All blood test were normal, Cranial CT scan without significant intracranial alterations but 9 mm left frontoparietal lytic lession was observed. Cranial MRI with few punctiform

 DOI: 10.12890/2022_V9Sup1

images in both cerebral hemispheres suggestive of gliosis and hyperostosis frontalis interna (Figure).
Diagnostic Pathways: Morgagni-Stewart-Morel Syndrome is a condition characterized by hyperostosis frontalis interna as well as obesity and hypertrichosis, other signs may include seizures, headaches, diabetes insipidus, and sex gland disorders.
Discussion and Learning Points: Hyperostosis frontalis interna consists of a thickening of the inner table of the frontal bone. Radiographic study presents a greater bone density with thickening at the frontal level that is compared to the shape of a butterfly, generally associated with a tissue architecture disorder. It is described in 5- 15% of the general population and in menopausal women between 40-60%, more rarely in young individuals with atrophic testicles. The predilection for the frontal area can be considered related to the blood supply. There are different names according to the association of hyperostosis with symptoms: Stewart Morel syndrome: hyperostosis frontalis interna, obesity and mental disorders; Troell-Junet syndrome: hyperostosis frontalis interna, acromegaly, gout and diabetes mellitus.



#EV1098 Figure 1.

809 / #EV1099

A CONNECTED PROBLEM

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Case Description: We report the case of a 27-year-old woman with a personal history of scoliosis, congenital cataracts, microcornea, Raynaud's phenomenon and migraine. Admitted for acute symptoms of dysesthesia and facial and left upper limb paralysis. Examination revealed hypertelorism, epicanthus, joint hyperlaxity and sclerodactyly. Cranial CT and supra-aortic vessels angiography showed complete occlusion of the preophthalmic segment of the right internal carotid artery and the right middle cerebral artery, demonstrating acute ischemic lesion in this territory; subsequent MRI confirmed these lesions, as well as extensive bilateral white matter involvement, suggestive of severe microangiopathic disease.
Clinical Hypothesis: Given the personal history, clinical and radiological findings, diagnostic assessment is performed to rule out collagenopathy.
Diagnostic Pathways: A complete autoimmune and whole body CT angiography were performed and both negative. Genetic study of collagenopathies was requested, demonstrating heterozygosity in the gene COL4A1 c.3505+1G>C, not previously described as a pathogenic variant of the COL4A1-related disorders. Finally, the patient underwent indirect encephalic revascularization (encephalomyarteriosynangiosis) with positive outcome.
Discussion and Learning Points: COL4A1-related disorders include a spectrum of overlapping phenotypes characterized by a small-vessel brain disease, systemic findings (Raynaud's phenomenon among others) and ocular defects (congenital cataract, Axenfeld-Rieger anomaly). Some of the phenotypic features are common to other collagenopathies, such as COL4A2. In COLA41 small vessel involvement is typical; on the other hand, medium and large vessels involvement, as presented by our patient, are described more typically in other collagenopathies, a fact which could be explained by overlapping with another entity, with genetic mutations that have not yet been described and may require further studies.

1298 / #EV1100

SEIZURE: BRAIN AND LUNGS...

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Case Description: A 73-year-old male, active smoker, presented to the emergency department with generalized tonicoclonic seizures associated with anterograde amnesia and mechanical dorsalgia over the past week. Neurological examination was normal.

DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: Cranial computed tomography (CT) had no relevant acute or chronic findings. Lumbar CT showed compressive fracture of D7 and for this reason the exam was extended to include the thorax.
Diagnostic Pathways: Thorax CT revealed an expansive aortopulmonary formation suggestive of a neoplastic process. Histology of lung biopsy was compatible with small cell lung cancer and so chemotherapy was iniciated. A cerebral magnetic resonance was obtained to clarify the seizures, which did was not suggestive of cerebral metastasis. Anti-neuronal anti-GABA(B) antibodies were positive in serum and cerebrospinal fluid and anti-SOX1 antibodies and anti-Zic4 antibodies were positive in the serum thus establishing a diagnosis of paraneoplastic encephalitis syndrome.
Discussion and Learning Points: Paraneoplastic limbic encephalitis is a rare neurologic syndrome with a challenging diagnosis. It is described in patients presenting with lung cancer (50%), genital cancer (20%) and breast cancer (8%). This entity is clinically characterized by a cognitive disorder, amnesia, confusion, psychiatric symptoms or seizures. This case increases the awareness of anti-GABAb encephalitis and its related differential diagnosis. Recognition is crucial as with prompt diagnosis and treatment the majority has a favourable outcomes.

2274 / #EV1101

HASHIMOTO'S ENCEPHALITIS, REPORT OF A CASE

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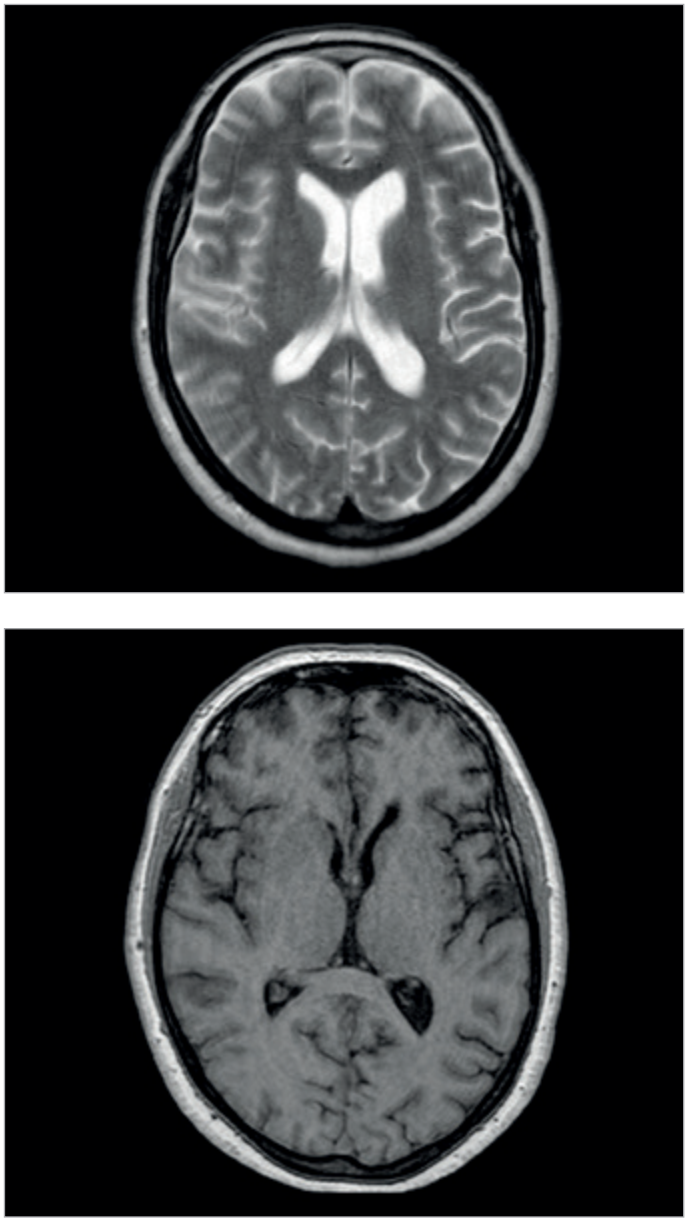
Case Description: 41-year-old woman, diabetes and Hashimoto's thyroiditis, with 10-minute tonic-clonic disconnection episode. Two months ago began myoclonic seizures and right side paresthesias, ataxia and motor transcortical aphasia. Flexor right leg spasms during exploration. Blood test and cultures were normal. Left frontal postictal edema at cranial RMN. Lumbar puncture was performed with normal LCR and negative microbiology. EEG records theta rhythm left frontoparietal during myoclonic seizures. Anti-peroxidase antibodies >1000 IU/ml in autoimmune test, Hashimoto's Encephalopathy was suspected confirmed by clinical improvement with corticosteroids and immunoglobulins (Figure).
Clinical Hypothesis: Once possible causes of encephalopathies have been ruled out, the diagnosis of Hashimoto's encephalitis is based on clinical symptoms with antithyroglobulin antibodies and the response to corticosteroid. Can be supported by other diagnostic tests, such as cerebrospinal fluid with a slight protein increase and mild lymphocytic pleocytosis.
Diagnostic Pathways: The electroencephalographic and cranial CT findings are nonspecific and can be reversed with corticosteroid.
Discussion and Learning Points: It was described in 1966 by Brain, with an estimated prevalence of 2.1/100,000. The average age is between 45- 55 years, with female predominance (5:1). Encephalopathy is present in 100% of cases, altered consciousness, impaired attention, behavioral and personality changes, focal or diffuse neurological signs, headache, and impaired function. Cerebrovascular accident- like episodes have been described in 25- 30%. The pathogenesis of this encephalopathy is unknown, associated with other autoimmune disorders (type 1 diabetes mellitus, systemic lupus erythematosus or Sjogren's syndrome). Thyroid function is normal and the diagnosis is the detection of antithyroid antibodies, especially antimicrosomal antibodies, since they are present in 100% of cases.



#EV1101 Figure 1.

 DOI: 10.12890/2022_V9Sup1

2003 / #EV1102

FAMILIAL HYPOKALAEMIC PERIODIC PARALYSIS

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Case Description: 15-year-old man consulting for acute loss of strength in the limbs during the morning. It wasn't the first time that happened to him. Neurological examination revealed loss of strength in the limbs, especially in the legs, and diminished osteotendinous reflexes. No medical history of interest. The family referred that his cousin was being studied for similar symptoms that coincided with episodes of hypokalaemia, something similar happened to his grandmother. The previous day he ate pizza and cake for dinner.

Clinical Hypothesis: Different diagnoses were put forward before the results of the tests were known, some of them were: periodic paralysis (which could be hypokalaemic, hyperkalaemic or thyrotoxic), myasthenia gravis, epilepsy or metabolic myopathy. Once the blood test was made, and considering the following items: family medical history, complete improvement after potassium replacement and carbohydrate intake the day before, the presumptive diagnosis was familial hypokalaemic periodic paralysis.

Diagnostic Pathways: Both, analytical (including autoimmunity, acetyl choline antibodies, muscle enzymes, hormones, ions and general parameters) and imaging tests, were normal, except potassium 2.6 mEq/L (3'5-5 mEq/L). Finally, a genetic test confirmed the patient's heterozygous carrier status for the c.1583G>A (p.Arg528His) mutation in the CACNA1S gene, the same as his cousin.

Discussion and Learning Points: Episodic paralysis is a rare disease with a prevalence of 1 per 100,000 people, being hypokalaemic, the most frequent type, with an autosomal dominant pattern of inheritance. Clinical manifestations can be confused with other entities, hence the importance of thinking about this disease and ask about family medical history, especially, in young people.

324 / #EV1103

ERDHEIM-CHESTER DISEASE – DIAGNOSIS OF RARE DISEASE 5 YEARS AFTER BONE BIOPSY

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Case Description: A 70-year-old woman presented with progressive bilateral leg pain, spastic tetraparesis, and slowed speech. Her medical history was significant for unclear bone lesions and distal leg pain for 8 years. A CT scan showed multiple sclerotic bone lesions and inflammation of the abdominal aorta. An MRI of the brain showed signs of pontine myelinolysis. Proteinelectrophoresis showed no presence of a paraprotein. The patient declined to perform bone biopsy. The histopathologic re-analysis and review of a bone biopsy taken 5 years before from the right tibia was compatible with the diagnosis of Erdheim-Chester disease. Analysis for the BRAF V600E mutation was positive. After consultation of a hemato-oncologist treatment was started with prednisolone and ciclophosphamid. However, treatment was subsequently stopped because of side effects, and the patient died two years after diagnosis.

Clinical Hypothesis: 5 years before admission a Tru-CutTM biopsy of the right tibia showed fibrohistiocytic proliferation with CD68 positive cells. The differential diagnosis of a benign histiocytoma was suggested, but no clear diagnosis made. We describe the first case of Erdheim-Chester disease after re-analysing a biopsy taken 5 years before.

Diagnostic Pathways: We asked the institute of pathology to re-analyse the biopsy made 5 years before. We asked to perfom a BRAF V600E Mutation analysis.

Discussion and Learning Points: Erdheim-Chester disease can present with multisystemic manifestations and slow progression over years. CD68 positive histiocytes in immune histochemistry and the BRAF V600E mutation are found in nearly 50% of cases and are crucial features for diagnosis. Erdheim-Chester disease should be considered in the differential diagnosis of multiple bone lesions.

568 / #EV1104

THE STRANGE CASE OF FEVER AND CERVICAL ADENOPATHY

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Case Description: Female, 38 years old. Background of Addison's disease, celiac disease (HLA DQ2+), Wilkie's syndrome, and known Factor V Leiden mutation (heterozygosity for the mutation G1691A). The patient resorted to an Internal Medicine appointment referred by her Primary Care Physician due to low fever with approximately two weeks of evolution associated with the onset of cervical lump, cutaneous rash and fatigue.

Clinical Hypothesis: Lymphoproliferative syndrome; autoimmune disease; adult-onset Still's disease; Kikuchi-Fujimoto disease.

Diagnostic Pathways: The patient was admitted for an additional investigation. The cervical ultrasound showed numerous hypoechogenic adenopathies located at the right supraclavicular space, without central hilum and some with pathological internal architecture. The lymph node biopsy

 DOI: 10.12890/2022_V9Sup1

showed yellowish necrotic foci on the cut surface of the node, lymphocytic T cells, plasmacytoid monocytes and a histiocytic cellular infiltrate (histiocytes CD68+), some areas with necrotic eosinophilic fibrinoid material with irregular distribution of nuclear debris fragments, in absence of neutrophilic infiltrate. It was also showed related perilymphadenitis and histiocytic infiltrate extendable to the perinodal space. Laboratory findings only showed marked leukopenia. Serological and autoimmune markers were all negative. All symptoms were solved after symptomatic treatment.
Discussion and Learning Points: The clinical findings and biopsy results point to Kikuchi disease, also called Kikuchi-Fujimoto disease or Kikuchi histiocytic necrotizing lymphadenitis, which is a rare and benign condition most frequently described in young women, of unknown cause usually characterized by cervical lymphadenopathy and fever. Histopathology of the lymph nodes differentiates Kikuchi disease from several more serious conditions that it may mimic.

620 / #EV1105

A PATIENT PRESENTING AT THE EMERGENCY DEPARTMENT WITH DYSURIA AND URINE RETENTION: A RARE CASE OF SOLITARY FIBROUS TUMOR OF THE PROSTATE

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Case Description: A 58-year old Caucasian man with a history of arterial hypertension and no familial medical history, presented in the emergency department with a 6 months history of pelvic discomfort, urinary frequency and urgency. The pelvic ultrasonography, revealed a dilated bladder containing about 600 cm^3 of urine and a well-limited 800 cm^3 pelvic tumor located in the anatomic area of the prostatic gland, causing patrial obstruction of the upper urinary tract and the colon. Magnetic resonance of the abdomen confirmed the existence of a heterogeneous pelvic tumor (sized 14x11.3x10.3 cm) and described the tumor as possible sarcoma infiltrating the colon. After full work-up the tumor was removed and the histology revealed the extremely rare condition (only 22 cases recorded up to date of diagnosis) of a solitary fibrous tumor of the prostate. The patient is monitored yearly with no problems since the excision of the tumor.
Clinical Hypothesis: The differential diagnosis of the case included: prostatic cancer, sarcoma, solitary fibrous tumor, congenital disorder.
Diagnostic Pathways: The patient underwent radiology and blood exams, biopsy of the tumor, endoscopy of the gastrointestinal system to check for infiltration or colon cancer, intervention radiology with placement of percutaneous nephrostomy tubes (pig-tails) and finally urological surgery with the removal of the tumor.
Discussion and Learning Points: Solitary fibrous tumor of prostate is a spindle-cell tumor derived from fibroblasts and is extremely rare. It is usually described in the pleura and has been originally described as a serosa-associated tumor of the thorax. It can be found in patients of all ages, but mostly between 50 and 70 years.

1241 / #EV1106

AN UNCOMMON ETIOLOGY OF SHOCK

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Case Description: A 53-year old man with previous diagnosis of hypertension, epilepsy and alcoholism, was admitted to the Emergency Department for altered state of consciousness. In the previous days he had history of nausea, vomiting, abdominal pain and reduced urinary output. At physical examination, he was lethargic, dehydrated, tachypneic and hypotensive. An arterial blood gas test was performed revealing a severe metabolic acidemia (pH 7.09, HCO3 4.2). It was also remarkable a sodium of 100 mmol/L, ionized calcium of 0.3mmol/L and chloride of 55 mmol/L. Laboratory results showed a major renal dysfunction (creatinine of 19 mg/dL), hyperphosphatemia (20.3 mg/dL), elevated inflammatory parameters and lipase of 2752 UI/L.
Clinical Hypothesis: The presumptive diagnosis of pancreatitis with multiorgan failure was made and the patient was admitted at the Intensive Care Unit (ICU) for demanding urgent renal replacement therapy and increasing doses of vasopressors. As soon as hydrocortisone was added for refractory shock the patient presented with a rapid and unexpected recovery allowing the step down and suspension of vasopressors.
Diagnostic Pathways: The hypothesis of adrenal insufficiency was considered, explaining not only the shock but also the electrolye imbalances present at the admission. Abdominal computed tomography scan did not support the diagnosis of pancreatitis but reported a diffuse bilateral enlargement of the kidneys associated with nephrotic proteinuria and monoclonal spike at alfa-2 protein on laboratory tests. Diastolic dysfunction was shown at ecocardiography which, in conjuction with the previous results, raised the suspicion of immunoglobulin light chain (AL) amyloidosis, confirmed by further fat abdominal biopsy.
Discussion and Learning Points: This report shows us that rare can also be severe.

 DOI: 10.12890/2022_V9Sup1

1043 / #EV1107

CYTOPHAGIC SINUS HISTIOCYTOSIS: A CASE REPORT

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Djillali Belkhenchir El Biar ex Birtraria, Medecine Interne, El Biar, Algeria

Case Description: Cytophagic sinus histiocytosis is a benign, rare and chronic condition. It is secondary to a lympho-histiocytic disorder causing benign histiocytic proliferation. The purpose of this observation is to present to you a rare disease called Rosai Dorfman's disease, the clinical particularity of which is that it associates, in addition to lymph node involvement, extranodal locations, the development of which is favorable with corticosteroid therapy. Observation A 32-year-old man with no particular pathological history consulted us for a large basi-cervical mass. Morphological exploration of the latter revealed multiple compressive bilateral cervico-mediatisnal lymphadenopathy associated with two thyroid nodules . Thyroidectomy with lymph node dissection was performed and the histopathological study concluded with lymph node and thyroid localisation of Rosai Dorfman cytophagic sinus histiocytosis. 5 years later, the patient had another consultation for the reappearance of another large basi-cervical mass, with the chest CT-scan showing an appearance of multiple cervicomedial lymphadenopathy. The search for other localisations of this rare clinical entity has made it possible to highlight skin damage such as eczema lesions in the gluteal region as well as bone damage objectified by brain CT.
Clinical Hypothesis: The initiation of effective corticosteroid therapy allowed excellent clinical and radiological progress.
Diagnostic Pathways: Histopathological diagnosis
Discussion and Learning Points: Cytophagic sinus histiocytosis is a very rare condition characterized by benign histiocytic proliferation, although lymph node involvement is the most common, other extranodal locations should be sought. To this day, corticosteroid therapy remains the cornerstone for its management, on the horizon, therapeutic perspectives are necessary to avoid any recurrence.

1344 / #EV1108

LEIOMYOSARCOMA IN A PATIENT WITH MADELUNG'S DISEASE: A CASE REPORT

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Case Description: A 45-year-old male with bilateral congenital anophthalmia, polyorchidism, and Madelung's disease, presented to the emergency department with a 3-week history of non-selective anorexia, post-prandial vomiting, early satiety and non-quantified weight loss. Physical examination showed palpable hepatomegaly with irregular borders. The computed tomography scan revealed a large intra-abdominal mass, seemingly unconnected to any visceral organ, as well as numerous hepatic nodules, suggestive of metastases.
Clinical Hypothesis: Melanoma, gastrointestinal cancer, pancreatic cancer and sarcoma were considered as possible primary tumors.
Diagnostic Pathways: Upon observation, no suspicious skin lesions were identified. Endoscopic studies showed no significant changes besides extrinsic compression of the stomach. All tumor markers were within normal range. Liver biopsy of one of the nodules was performed; histology and immunohistochemistry were compatible with leiomyosarcoma.
Discussion and Learning Points: Madelung's disease has been associated with cancer of the upper airways. Malignant liposarcomatous transformation of benign lipomas has also been described. The association between Madelung's disease and leiomyosarcoma has not been yet described. However, this case report shows a possible correlation between the two, especially given the mesenchymal origin of both conditions. Moreover, the patient had congenital anomalies that could be part of a genetic syndrome with increased predisposition for the development of leiomyosarcoma.

425 / #EV1109

FIRST RESULTS FROM A PROPENSITY MATCHING TRIAL OF MYCOPHENOLATE MOFETIL VS. AZATHIOPRINE IN TREATMENT-NAÏVE PATIENTS WITH AUTOIMMUNE HEPATITIS

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Background and Aims: As previous real-world studies have shown that mycophenolate mofetil (MMF) might have better efficacy than azathioprine (AZA) in autoimmune hepatitis (AIH), we conducted a propensity matching study to assess the efficacy and safety of MMF vs. AZA.
Methods: All 126-consecutive treatment-naïve adult AIH patients, diagnosed and followed in our department since 2016, were prospectively included. Patients received prednisolone 0.5-1mg/kg/day plus either AZA 1-2mg/kg/day or 1.5-2g/day MMF. The schedule of prednisolone tapering was identical between the groups.
Results: After propensity matching score and adjustment for known factors affecting the response to treatment and outcome, 64 patients were included in the study (32 on MMF and 32 on AZA). Rates of non-response, complete biochemical response (CBR) (at 6- and 12-months), and prednisolone withdrawal (at 6-months, 12-months, and end of follow-up) were identical

DOI: 10.12890/2022_V9Sup1

between the groups. However, CBR at the end of follow-up was significantly higher in the MMF group (p=0.003). Patients on AZA were more prone to switch to MMF (p=0.0001), because of intolerance and/or insufficient response to AZA. The overall CBR rates after changes were also significantly higher in the MMF-group compared to either AZA-induced CBR at 6-months (p=0.003), 12-months (p=0.003), or the overall response of the initial AZA-group (p<0.0001).

Conclusions: We showed for the first time in a propensity matching study that MMF can be used as first-line therapy in AIH as attested by the significantly higher CBR rates both at end of follow-up and after switching to MMF compared to AZA.

DOI: 10.12890/2022_V9Sup1

AS17. RESPIRATORY DISEASES

1135 / #EV1110

DOUBLE TROUBLE: THE COEXISTENCE OF HODKING LYMPHOMA AND TUBERCULOSIS

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Case Description: A 21-year-old woman presented to the Emergency Department with a 3-month history of progressive fatigue, anorexia, weight loss and irritative coughing. She was emaciated, febrile and pale, but hemodynamically stable and with no respiratory distress; she had palpable mild hepatosplenomegaly and palpable nodules in the cervical, right supraclavicular and inguinal regions, soft in consistency in both cervical and inguinal sites and hard in the supraclavicular area, with no signs of local inflammation.

Clinical Hypothesis: Lymphoproliferative disorder; tuberculosis (TB).

Diagnostic Pathways: Laboratory testing showed elevation of inflammatory markers and mild cytolytic and cholestatic changes; there was immunological scarring to cytomegalovirus and Epstein-Barr virus. Chest radiography revealed bilateral perihilar nodular opacities and granular interstitial alterations; the cervical-thoracic-abdominopelvic CT scan documented multiple bilateral micronodules, adenopathic conglomerates in the cervical, mediastinal, hilar, paracardiac and internal mammary node chains, hepatosplenomegaly and adenopathies along the great vessels, mesentery and coeliac territory. Bacilloscopy, sputum culture and direct examination of blood samples showed no evidence of acid-fast bacilli. A bronchoscopy was performed, where an endobronchial mass was identified and biopsied; the histopathology was compatible with Hodgkin lymphoma (HL) and the excisional biopsy of a cervical adenopathy reinforced the diagnosis, identifying its nodular sclerosing subtype. There was Mycobacterium tuberculosis DNA present in the bronchoalveolar lavage, confirming the concomitant diagnosis of TB.

Discussion and Learning Points: The overlapping clinical characteristics of both HL and TB create a diagnostic challenge, even more so when they present concomitantly. Thus, it requires a high level of suspicion, making it important to raise awareness on this clinical entity.

550 / #EV1111

USE OF NINTEDANIB IN A PATIENT WITH POSTCOVID FIBROSIS ASSOCIATED WITH SARCOIDOSIS.

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Case Description: Caucasian, male, 40 years old, presented on 21/09/2020 with symptoms of acute respiratory viral infection. From anamnesis is known, that in 2018 the patient was diagnosed with sarcoidosis and receives metilprednisolone 8 mg. Previous CT 03/09/2020. (Figure 1).

On 21/09/2020 CT scan was performed. (Figure 2).

On 22/09/2020, taking into account clinical manifestations, the changes on the CT scans, laboratory data (an increase in the level of seromucoids, C-reactive protein by 10 times, ESR), the patient was diagnosed with mild SARS-CoV-2 infection. The patient received symptomatic therapy. On 05/10/2020, a control CT scan was performed (Figure 3).

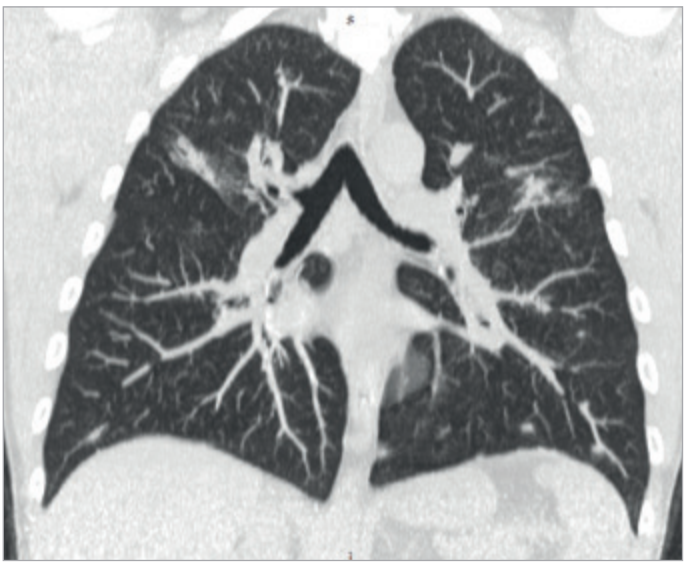
Clinical Hypothesis: Taking into account the off-label study "Nintedanib for the Treatment of SARS-CoV-2 Induced Pulmonary Fibrosis (NINTECOR)" opened on 09/09/2020, which investigated the effect of nintedanib on pulmonary fibrosis as a consequence of SARS-CoV-2. Based on this study, and presece of post-COVID-19 pneumonia pulmonary fibrosis, persistence of shortness of breath and low oxygen saturation (SpO2 91-92%) and the history of sarcoidosis, the patient received the drug "Ofev" (nintedanib) 150 mg 2 times a day for a month.

Diagnostic Pathways: On 09/11/2020, a control CT (Figure 4).

After receiving the results, "Ofev" was prescribed for another 1 month. On 23/12/2020, CT did not show significant changes in lungs (Figure 5).

Discussion and Learning Points: This clinical case proves the effectiveness of the appointment of nintedanib for the treatment of post-COVID-19 pneumonia pulmonary fibrosis. However this drug did not show convincing dynamics in relation to pulmonary fibrosis due to sarcoidosis.It's advised to prescribe nintedanib for 1 month.

DOI: 10.12890/2022_V9Sup1



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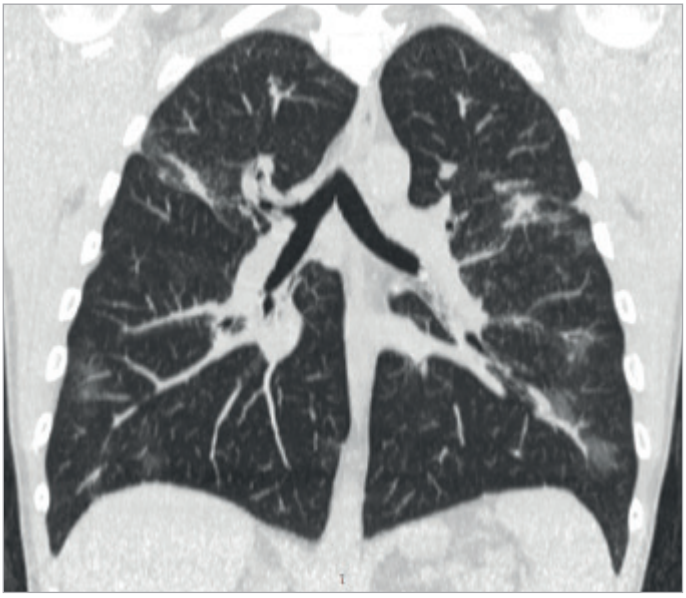

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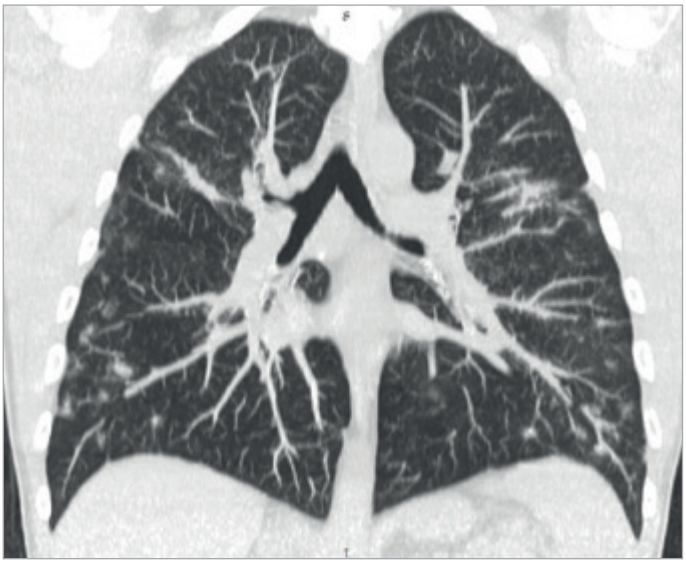

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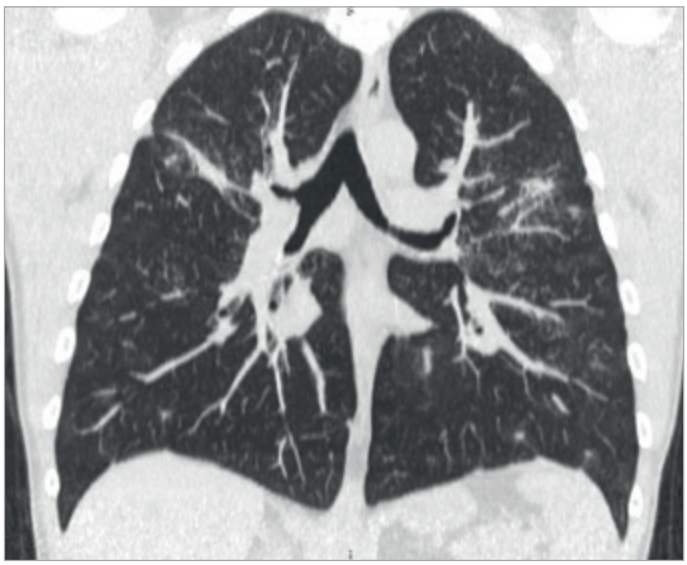

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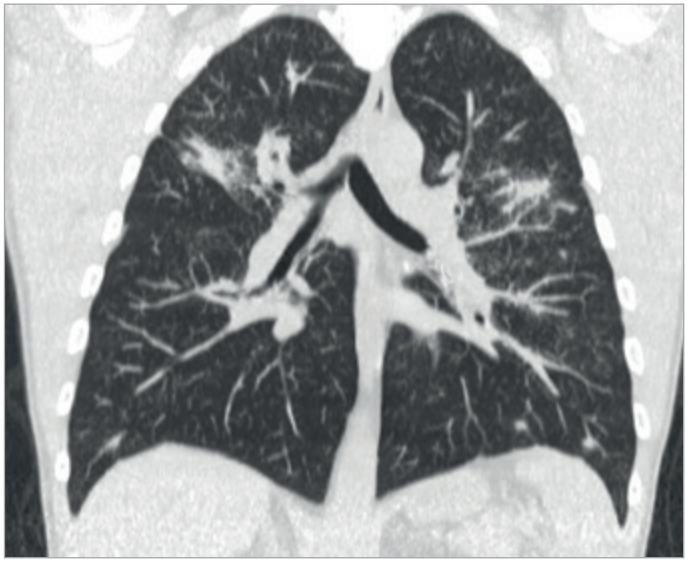

#EV1111 Figure 5.

917 / #EV1112

EVALUATION OF THE IMPACT OF THE COMBINED PATHOLOGY OF BRONCHIAL ASTHMA AND OBESITY ON THE QUALITY OF LIFE

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Background and Aims: Management of comorbid conditions is an important issue in the modern medicine. One of the frequent cases of combined pathology are bronchial asthma (BA) and obesity. Obesity increases the risk of development of asthma and worsens the disease. The study aims to analyze the impact of combination of BA and obesity on the quality of life of patients.

Methods: Patients received a complete clinical and laboratory examination, spirometry, body mass index (BMI) measurement,

DOI: 10.12890/2022_V9Sup1

and were offered to fill in the Asthma control questionnaire (ACQ-5) and The Short Form (36) Health Survey (SF-36). 30 patients were examined and divided into 3 groups: 10 patients with asthma and normal BMI, 10 patients with asthma and obesity, 10 patients with obesity.
Results: Mean age of participants with BA alone – 39.4±1.76, BA and obesity 56.4±1.25. Among patients with BA, SF-36 physical component score (PCS) was equal to 35.82±3.7 and mental component score (MCS) - 44.75±5.2. Among patients with BA and obesity, SF-36 results were as follows: PCS 24.7 ±5.7, MCS 47.09±2.72. Results among patients with obesity only: SF-36 PCS 44.79±4.3; MCS 51,77±3,52. Physical component score was lowest in patients with BA and obesity, mental component score was lowest in patients with BA only.
Conclusions: Combined pathology of bronchial asthma and obesity leads to the increased burden of the disease and significantly affects physical component of the quality of life of patients. Mental health component remains relatively stable. Complex personalized treatment approach will help in improving the control of asthma.

2692 / #EV1113

MILIARY PATTERN: NOT ALWAYS TUBERCULOSIS

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Case Description: A 69-year-old woman, with no relevant clinical history or toxic habits, consults for mild fever and progressive respiratory symptoms in the last two months. A chest X-ray showed a miliary pattern, right perihiliar consolidation, right pleural effusion and bilateral lymphadenopathy; with no relevant findings in any of the blood test performed. The following days, she suffered a clinical deterioration, requiring admission in ICU for mechanical ventilation.
Clinical Hypothesis: Suspected infectious pathology in a patient with fever and radiological miliary infiltrate.
Diagnostic Pathways: Given the clinical suspicion of tuberculosis with bacterial superinfection, tuberculostatic and antibacterial treatment was decided. Samples for mycobacteria, bacteria, viruses and fungi were taken, including PCR, serology, culture, gram, sputum, urine, bronchial aspiration and biopsy, without success in microbiological isolation. A subsequent CT scan concluded the presence of numerous bilateral millimetric pulmonary nodules suggestive of stage IV invasive mucinous adenocarcinoma of the lung. A bronchoscopy found a lesion suggestive of neoplasia, whose biopsy confirmed the diagnosis of invasive mucinous adenocarcinoma, typified as EGFR genotype.
Discussion and Learning Points: Invasive mucinous adenocarcinoma (former bronchioloalveolar) is a rare entity among pulmonary carcinomas. It more commonly affects women, young people and non-smokers. An estimated of 10% of this tumors have EGFR mutation, which opens up the possibility of targeted therapy with tyrosine-kinase inhibitors, with promising results up until the present time. Although tuberculosis is the main aetiology to rule out in a miliary pattern, the rapid clinical worsening despite adequate therapy and the absence of mycobacterial isolation forces us to exclude other less frequent causes such as malignant neoplasms.

1784 / #EV1114

BORDETELLA BRONCHISEPTICA PNEUMONIA IN A KIDNEY TRANSPLANT RECIPIENT: A CASE REPORT

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Case Description: A 49-year-old man, born in India, presented with fatigue, asthenia, polydipsia and pollakiuria within a week of evolution; there was no history of recent travels, contact with animals or substance misuse. On admission, he had high blood glucose and ketone level of 5.6mmol/L.The patient was a kidney transplant recipient from a living-donor in 2013 in India for chronic kidney disease stage 5 (unknown etiology) and was medicated with tacrolimus, prednisolone, mycophenolic acid and trimethoprim+sulfamethoxazole.
Clinical Hypothesis: Inaugural diabetes mellitus; atypical pathogen infection.
Diagnostic Pathways: Investigation carried out initially revealed: leukocytosis (13,000/uL), C-reactive protein 67 mg/dL; chest radiography with bilateral infiltrate;computed axial tomography with" (...) four areas of grossly nodular densification in the pulmonary parenchymal assessment, two voluminous at the bases and two smaller, one in the middle lobe and another in the lingula (...)". After blood and urine cultures were obtained - which later turned out negative - ceftriaxone was empirically started. Subsequently, bronchoalveolar lavage was performed, with isolation of *Bordetella bronchiseptica* and treatment with doxycycline was started. There was significant clinical improvement, with the patient later being transferred to a kidney transplant unit for continuation of care. As complications during hospitalization, can stand out inaugural diabetes mellitus and esophagitis by cytomegalovirus.
Discussion and Learning Points: *Bordetella bronchiseptica* is a gram-negative coccobacillus, commonly responsible for infections in animals. Though rare in humans, infections with this agent have been documented. Immunosuppressed patients are susceptible to a variety of different infectious conditions and agents, and the presentation may be atypical. Bordetella bronchiseptica, despite being an uncommon pathogen, should be considered mainly in immunocompromised patients.

 DOI: 10.12890/2022_V9Sup1

874 / #EV1115

A CASE OF BORDETELLA BRONCHISEPTICA IN HUMAN

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Case Description: An 84-year-old man with ischaemic heart failure and cardiovascular risk factors, went to the Emergency Department for fever, cough, and progressive worsening of dyspnoea for 2 weeks. He also presented a constitutional syndrome with anorexia, weight loss, and nocturnal hypersudoresis.
Clinical Hypothesis: Community pneumonia.
Diagnostic Pathways: Analytically, the inflammatory parameters were elevated, he had persistent lymphopenia and worsening of anemia, with characteristics of anemia of chronic diseases. The chest radiograph showed a bilateral cotton-wool infiltrate. Test for Influenza, SARS-CoV-2, and human immunodeficiency virus were negative. Electrophoresis of proteins had no monoclonal peak. Empirical antibiotherapy with amoxicillin/clavulanic acid and azithromycin was started. Due to respiratory failure and persistence of non-daily afternoon fever, a chest CT was carried out which showed consolidations and ground-glass opacities bilaterally, central and, thickening of the intralobular septa. A bronchofibroscopy was carried out with aspiration of mucopurulent tracheobronchial secretions and antibiotic therapy was changed to piperacillin/tazobactam. Bordetella bronchiseptica was isolated in the bacteriological examination of bronchial lavage; mycobacteriological and mycological were negative.
Discussion and Learning Points: After a review of the epidemiological context, there was a close coexistence with a baby dog, with cough. This microorganism is common in dogs, although rarely transmitted to humans. In this case, due to the valid epidemiological context, with temporal relation with the onset of the patient's symptoms, infection by this agent was admitted. The patient showed progressive clinical improvement, having completed 4 weeks of antibiotherapy.

2381 / #EV1116

PNEUMONIA VERSUS PULMONARY THROMBOEMBOLISM… OR BOTH?

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Case Description: 96-year-old man, with no history of pulmonary disease, was admitted at the emergency department for fever and obnubilation. He was hemodynamically stable after fluid resuscitation, but presented severe respiratory failure and acute kidney injury. The thoracic radiography showed a lobar infiltrate. The diagnosis of pneumonia was assumed, and empirical antibiotic therapy was started.
Clinical Hypothesis: The diagnosis of pneumonia was assumed, and empirical antibiotic therapy was started. However, the disproportion between the degree of respiratory failure and the clinical and analytical improvement from the infectious disease led to other diagnoses being considered, as pulmonary thromboembolism.
Diagnostic Pathways: Due to kidney injury, thoracic angio-CT was delayed, but therapeutic anticoagulation was started. The angio-CT performed around 76 hours of anticoagulation showed evidence of pneumonia as well as segmental thromboembolism, both on the right side.
Discussion and Learning Points: Pneumonia is a very common infection, but its presenting symptoms are often unspecific. In Medicine, the rule is to frame the signs and symptoms in a single clinical problem, however, we are often faced with less clear clinical scenarios. In this clinical case, despite the high degree of certainty in the initial diagnosis, there were details that didn't completely agreed, leading to the evaluation of possible concomitant diagnoses. Rational thinking with attention to details were essential.

281 / #EV1117

PERIPHERAL BLOOD EOSINOPHIL LEVEL IN EXACERBATED COPD PATIENTS, AND THEIR RELATIONSHIP WITH THE STABLE PHASE OF THE DISEASE

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Background and Aims: To know if the correlation of basal eosinophils and in exacerbation of COPD patients could be helpful in promoting and proposing basal treatment adjustments.
Methods: Retrospective, observational study of COPD patients, reviewed in consultations of pneumology, who have attended in hospital emergencies due to exacerbation during 2018.
Results: 250 patients were included, 48 suffered exacerbations and were treated in the emergency room.The majority of the exacerbated patients had Gold grade D (47.9%).47.9% required hospitalization and 45.8% were discharged from the emergency room. 6.25% were admitted to the ICU. 8.3% of patients died.79% of the patients had inhaled corticosteroids. Regarding the number of eosinophils, we divide them into eosinophils (≤300) or (> 300), both in exacerbation and baseline prior to that exacerbation, and we found that with independence of the treatment, 89.1% of the

 DOI: 10.12890/2022_V9Sup1

patients had a positive correlation between the blood eosinophils in stable phase and during exacerbation. 10.4% did not have it. The 80.4% had a positive correlation, with eosinophils ≤300 in stable phase and in its exacerbation, while that 8.6% had a positive correlation with eosinophils> 300.
Conclusions: The exacerbations of COPD that are treated in the emergency room correspond to patients with a higher degree severity in COPD. We found a very high correlation between the level of basal eosinophils and those that have during the exacerbation, regardless of the base treatment, so that from the emergency department we could use this parameter during exacerbation with similar guarantees to those that offer in stable patients.

2013 / #EV1118

ORGANIZING PNEUMONIA

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Case Description: We describe a case of a 61-year-old female with hypoxemia, cough, myalgias, night sweets and weigh lost with 1 week of evolution, who was diagnosed with organizing pneumonia.
Clinical Hypothesis: Bacterial pneumoniae, tuberculosis, organizing cryptogenic pneumonia, organizing pneumonia due to SARS-CoV-2 vaccine.
Diagnostic Pathways: Organizing pneumonia is a rare disease that usually affects individuals in fifth or sixth decades of life. Organizing pneumonia is classified as an Interstitial Lung Disease and is defined by clinical, radiological and histological findings.
Discussion and Learning Points: The etiology of Organizing Pneumonia is a challenge to the physician due to similarity of patters between causes. In order to classify it as cryptogenic organizing pneumoniae, the etiologies associated with this condition must be excluded first. However there are cases described associated with drugs vaccine-induced interstitial lung disease so this etiology must be taken into consideration.

828 / #EV1119

VERTEBRAL FRACTURE IN PATIENTS WITH STABLE COPD. SEMI-COPD STUDY

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Background and Aims: To determine the prevalence of vertebral fracture in COPD patients.
Methods: Multicenter observational study. Patients with COPD in stable phase were included. Data on age, sex, comorbidities, lung function were collected with spirometry and pharmacological treatments. The patients were performed a thoracic and lumbar spine X-ray. Two radiologists examined the radiographs. Vertebral fractures were classified according to Genant's criteria.
Results: 73 patients were included, 66 men and 7 women, with a average of 71.7 (9.3) years. The% FEV1 postbronchodilation was 57.7 (20.0). 16 (21.9%) patients were diagnosed with osteoporosis, one (1.4%) had had a hip fracture and 8 (11%) other fractures. Inhaled corticosteroids were used by 42 (57.5%) patients and systemic vere used by 3 (4.1%). The existence of at least one vertebral fracture was observed in 39 (53.4%) patients and 23 (31.5%) had more than one fracture. 96 fractures were observed. The vertebrae affected were D8 (16.4%), D9 (8.2%), D10 (10.9%), D11 (8.2%), D12 (13.7%), L1 (21.9%), L2 (13.7%), L3 (12.3%), L4 (2.7%) and L5 (9.6%). The vertebral accusation was anterior in 65.6% of the fractures, posterior in 5.2%, and biconcave in 29.2%.74.4% of the fractures were Genant grade 1,18.6% grade 2, and 7% grade 3. Patients with vertebral fracture scored higher on the CAT (20.2 vs. 15.1; p=0.046).In the multivariate analysis, only weight was associated with vertebral fracture with an OR of 0.949 (95% CI 0.908-0.992, P=0.019).
Conclusions: The prevalence of vertebral fracture in COPD patients is high and is associated with lower body weight.

1955 / #EV1120

SPONTANEOUS PNEUMOMEDIASTINUM - REPORT OF A CASE

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Case Description: A young man went to the hospital complaining of thoracalgia, cervicalgia and dysphagia. He had a right cervical subcutaneous emphysema at the physical examination. There were

 DOI: 10.12890/2022_V9Sup1

not any changes on his blood test results. A computed tomography revealed a subcutaneous emphysema and a pneumomediastinum, with no sign of pneumothorax. Prophylactic antibiotic therapy was initiated with amoxicillin/clavulanic acid. The radiological revaluation showed a regression of the pneumomediastinum and the subcutaneous emphysema and the patient was discharged after 4 days.

Clinical Hypothesis: The diagnosis of spontaneous pneumomediastinum (SP) may go unnoticed because its most common symptoms are usually associated with respiratory or cardiovascular diseases. Another diagnosis that should be excluded is a spontaneous pneumothorax. Both cases usually occur on young tall males and are associated with tobacco or inhaled drug consumption.

Diagnostic Pathways: SP's most frequent sign is a subcutaneous emphysema. The presence of Hamman's sign, a crunching sound at auscultation in synchrony with the heartbeat, is almost pathognomonic of a pneumomediastinum diagnostic. The chest radiography is the first radiological exam and usually establishes the diagnosis. Esophageal rupture is a rare complication that should be excluded by computed tomography or barium esophagram.

Discussion and Learning Points: SP is usually a benign condition with a conservative therapeutic strategy. The most common symptoms are more associated with respiratory or cardiovascular diseases. SP should be included on the differential diagnosis of chest pain complaints due to its rare complications that may require a more intensive approach.

2598 / #EV1121

DRUG-RELATED PNEUMONITIS: A RARE DIAGNOSIS WITH A COMMON CLINICAL PRESENTATION

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Case Description: A 62-year-old woman presents to the emergency department with a sudden onset dyspnea and hemoptysis. The first medical evaluation detects hypoxemic respiratory failure. Her medical history includes metastatic renal cell carcinoma in treatment with axitinib, hypertension, hypothyroidism and heart failure. Blood tests revealed mild leukocytosis, negative C-reactive protein and elevated NT-proBNP and chest CT showed bilateral ground-glass opacities and bilateral pleural effusion, known to be a transudate.

Clinical Hypothesis: Given the clinical context, oncological disease progression was immediately considered. Pulmonary embolism, pulmonary edema and COVID-19 pneumonia could also explain the findings and were considered as the main differential diagnosis.

Diagnostic Pathways: Chest CT was reassessed for the presence of thrombi in pulmonary vasculature and suspicious nodular lesions, and both were excluded. The improvement of pleural effusion over previous observations and poor response to diuretic therapy did not support acute decompensation of heart failure. Real-time PCR did not detect SARS-CoV-2 virus. Due to the recent start of axitinib, the hypothesis of iatrogenic was considered and the patient was treated with 60 mg prednisolone and supportive care, with subsequent clinical recovery.

Discussion and Learning Points: Bilateral ground-glass opacities on chest CT is a common but non-specific finding with a broad spectrum of differential diagnosis. Tyrosine kinase inhibitors may rarely cause adverse pulmonary events with this pattern plus hypoxemic respiratory failure. Since coronavirus infection can mimic the clinical and radiologic pattern of drug-related pneumonitis, internists should be alert to it, especially in the context of the COVID-19 pandemic.

275 / #EV1122

TREATMENT OF ACUTE EXACERBATIONS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE WITH ACUPUNCTURE DURING HOSPITALIZATION: A THREE- ARM RNANDOMIZED- CONTROLLED TRIAL

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Background and Aims: Acute exacerbations of chronic obstructive pulmonary disease (AECOPD) are a health-care burden. Acupuncture improves dyspnea in COPD but has not been tested in AECOPD. We evaluated the efficacy and safety of true acupuncture added to standard-of-care (SOC), as compared with both sham-procedure plus SOC, and SOC only, for treatment of AECOPD among inpatients.

Methods: This randomized-controlled trial was set in a tertiary hospital in Israel. Patients diagnosed with AECOPD were assigned to either true acupuncture with SOC, sham-procedure with SOC or SOC only. The primary outcome was clinical improvement as measured daily by the validated modified Borg (mBorg) scale. Secondary outcomes included improvement of subjective and objective features, as well as duration of hospitalization and treatment failure. Acupuncture-related side effects were evaluated by the validated AcupAE questionnaire.

Results: 72 patients were randomized: 26 were assigned to acupuncture treatment, 24 to sham-control and 22 to SOC-control arm. Baseline characteristics including clinical symptoms were similar in the three groups. A statistically significant difference in dyspnea intensity was found from the first day of evaluation after

 DOI: 10.12890/2022_V9Sup1

treatment (p=0.014 between the 3 arms – significant difference of both true acupuncture vs sham-control: p=0.031, and true acupuncture vs SOC-control: p=0.014), and until day 3 after treatment. Similar results were found for sputum production, but no statistical significance was found when comparing objective features between the three arms. No safety event was delineated during the study period.
Conclusions: Acupuncture seems safe and effective in the treatment of AECOPD during hospitalization. Larger studies are required to confirm our findings.

1563 / #EV1123

RADIOLOGICAL CHARACTERISTICS, FUNCTIONAL EVOLUTION AND SURVIVAL IN REAL LIFE OF PATIENTS WITH IDIOPATHIC PULMONARY FIBROSIS IN ANTIFIBROTIC TREATMENT

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Background and Aims: The objective was to know the general characteristics of patients with diagnosis of IPF and evaluating the behavior of lung function decline after initiation of antifibrotic treatment and their survival.
Methods: Observational, retrospective and descriptive study of patients diagnosed with IPF in the last 5 years that started antifibrotic treatment. We collected variables at the time of diagnosis and functional before the start of treatment and at the annual check-up.
Results: Cohort of 22 patients, 90.9% men (mean age 70±10 years). There were 13.6% of active smokers, 59.1% ex-smokers and 27.3% non-smokers. The predominant radiological pattern was of probable UIP (45.5%), performing surgical biopsy in 60% and cryobiopsy in 10%. In 13.6% a pattern was detected indeterminate for UIP with diagnosis histology of NIU. The typical UIN pattern appeared in 40.9% and no biopsies were performed in none. Before treatment, the mean value of FVC was 80.25%±14.98: 75% with mild restrictive pattern, 20% with moderate pattern and 5% severe. The diffusion was 45.32%±24.6: 10.5% with mild affectation, 26.3% moderate and 5.3% very severe. TLC was 69.88%±10.2: mild involvement 53%, moderate 29% and severe 18%. The mean fall in lung function in the review annual was 7.5%±11.4 for FVC, 2.2%±9.25 for TLC and 12.29%±8.4 for DLCO. Median survival was 40 months.
Conclusions: Our diagnostic profile for IPF is of 70-year-old men, ex-smokers, with a mild restriction, severe diffusion impairment and total lung capacity moderate. The antifibrotic treatment slows the loss of lung function.

2728 / #EV1124

CHRONIC COUGH: A LUNG TUMOR PRESENTATION

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Case Description: A 58-year-old female, non-smoker, came to the Emergency Department for cough accompanied by mucous sputum, with 3 months of evolution. Also refers to a loss of 2 kg of weight and fatigue for moderate efforts, without other symptoms. On chest radiography, she presents multiple infracentimetric micronodules, dispersed in both lung fields. Analytically: (VS) 69 mm 1st hr, ferritin 256.0 ng/mL, (LDH) 297 U/L. In the thoraco-abdomino-pelvic CT scan to be highlighted. In the lower cervical evaluation multiple adenopathies that extend into the retroclavicular and supraclavicular regions, some with a necrotic appearance. In the thoracic evaluation, countless scattered nodules bilaterally reaching all lobes are highlighted, referring to the presence of a mass with irregular contours. In the adjacent left upper lobe and adherent to the mediastinum approximately 7.6 cm in length, extending to the aortopulmonary window, associated with multiple adenopathies at the hilar and mediastinal level. These aspects raise the suspicion of lung cancer with bilateral metastasis and lymph node involvement. Bronchoscopy with biopsy was performed with direct signs of atypia in the BLSE, awaiting results.
Clinical Hypothesis: Chronic cough can be a symptomatic manifestation of multiple pathologies, namely infectious, autoimmune or even neoplastic.
Diagnostic Pathways: Report of a case in which coughing was a symptom of the presentation of a lung neoplasm.
Discussion and Learning Points: This case aims to highlight the need to carry out an in-depth investigation of a chronic cough and to suspect a neoplastic disease, even in young patients without associated risk factors.

2694 / #EV1125

PLATYPNEA-ORTHODEOXIA SYNDROME IN A PATIENT WITH COVID19: A CASE REPORT

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Case Description: This is the case of a 74-year-old woman with a personal history of liver cirrhosis without portal hypertension, mild pulmonary hypertension and aortic elongation. She attended the Emergency Department (ED) of our center due to

 DOI: 10.12890/2022_V9Sup1

fever, muscle pain and dyspnea. A blood test showed elevated inflammatory markers. PCR for SARS-CoV-2 was positive and chest X-ray was compatible with bilateral bronchopneumonia and aortic elongation. The patient was admitted to the hospital ward, receiving treatment for SARS-COV-2 infection with dexamethasone and low-flow oxygen therapy. During the first two weeks of evolution, she presented a favorable response. However, during the rehabilitation sessions she presented oscillations in oxygen saturation. with episodes of oxygen desaturation and dyspnea occurring when the patient was in a seated position, both improving when she was in the supine position.

Clinical Hypothesis: In view of these findings, the main clinical hypothesis was platypnea-orthodeoxia syndrome (POS).

Diagnostic Pathways: The study was completed with agitated serum echocardiography, which showed intracavitary shunt suggestive of patent foramen oval (PFO) with early and massive passage of bubbles to the left cavities. The patient underwent surgery with closure of the shunt with clinical improvement and resolution of POS.

Discussion and Learning Points: Recently, within the SARS-CoV-2 pandemic, some cases of POS have been described that are related to infection by this viral agent and the development of an imbalance in ventilation/perfusion (V/P), that favors shunt. It is important to know about this connection, given that, sometimes the diagnosis of POS is difficult, requiring a high degree of suspicion on the part of clinicians.

1183 / #EV1126

ADHERENCE TO CLINICAL PRACTICE GUIDELINES IN PATIENTS HOSPITALIZED FOR COPD EXACERBATIONS. INTER-ANALYSIS OF THE ADEG-EPOC STUDY

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Background and Aims: Describe the clinical characteristics of patients hospitalized for COPD exacerbations in the Internal Medicine Services in Spain, evaluate the adequacy of clinical management and treatment to the recommendations of clinical practice guidelines (GOLD and GesEPOC) and analyse possible variability in its application.

Methods: Multicentre observational, longitudinal and prospective study (19 Spanish hospitals) in which were including consecutive hospitalized patients since January 2020, whose main reason for admission is COPD exacerbation. This inter-analysis includes the first 151 patients with complete records at June 1, 2021.

Results: 151 patients were included (82.8% males, 75.3±9.9 years old) with significant associated comorbidity (Charlson index: 6.3±2.5), and severe obstruction (FEV1: 48.7%±16.5%). The adequacy to the clinical practice guidelines (CPGs) in the initial evaluation and in the treatment of exacerbations was globally 30%, without differences by geographical areas, while by sex there was a greater adequacy in women (p=0.0067 for clinical evaluation, and p= 0.0063 for treatment). Adequacy regarding treatment of stable COPD was 60%.

Conclusions: (1) The global adherence to the CPGs guidelines regarding the management and treatment of acute exacerbations of COPD and the treatment of stable COPD in the Spanish Internal Medicine Services is low, and there is still a significant margin for improvement. (2) In our country there is some variability, not previously described, in the application of clinical guidelines

 DOI: 10.12890/2022_V9Sup1

to patients hospitalized for COPD exacerbations, not having detected geographic variability but greater adherence in women with the disease.

607 / #EV1127

THE DIFFERENTIAL DIAGNOSIS OF CARDIOGENIC PULMONARY EDEMA

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Case Description: We present the case of a 57-year-old woman transferred to our hospital with suspected left pyelonephritis and decompensated heart failure. She had pain in the bilateral lumbar region with progressive dyspneic sensation in the last weeks. Initial labs were significant for a normal B-type natriuretic peptide and a normal PCR. A chest X-ray was performed, which showed a diffuse bilateral interstitial infiltrates. A thoracic CT was performed that showing data of heart failure, so an echocardiogram was performed that showed no alterations. What was striking is that a young patient with no cardiovascular risk factors or history of ischemic heart disease will debut with a decompensated heart failure. We reviewed the thoracic ct. and visualized mediastinal adenopathies and a reticulonodular pattern with endobronchial thickening and interstitial lines, suggestive of heart failure as the first possibility, to rule out carcinomatous lymphangitis. With the suspicion that it was a disseminated oncological disease, a CT scan of the abdomen was extended, where a left ureterohidronephrosis was seen, secondary to a marked thickening of the ureter, suggestive of urothelial carcinoma. Lytic bone lesions of lumbar vertebral location compatible with metastasis were also visualized.
Clinical Hypothesis: The first hypothesis was that it was heart failure.
Diagnostic Pathways: The different causes of progressive dyspnea with interstitial lung disease were considered: cardiogenic pulmonary edema, pneumonia, pulmonary tuberculosis, Interstitial lung disease, vasculitis, bronchioloalveolar carcinoma, and lymphangitic carcinomatosis.
Discussion and Learning Points: We present this case to remember that interstitial pulmonary edema is a radiological pattern that is present in many tumors, including lung carcinoma and lymphangitic carcinomatosis.

1974 / #EV1128

CONSOLIDATION IS NOT ALWAYS PNEUMONIA

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Case Description: 86-year-old man presented with chest pain, worsening dyspnea, fever and malaise. He had no cough, sputum or hemoptysis. His past medical history was irrelevant. He was treated for community-acquired pneumonia with amoxicillin/clavulanate and azithromycin, without significant clinical improvement. Given persistence of symptoms, he was hospitalized 3 weeks later. CT scan demonstrated extensive consolidations bilaterally. He was discharged after 9 days of piperacillin/tazobactam. Three months later, he returned with chest pain, malaise but no fever. Physical exam showed crackles in both lung bases. Analytically, he had anemia, leucopenia, erythrocyte sedimentation rate of 52 mm/1h and C-reactive protein of 63.5 mg/L. CT scan revealed bilateral dispersed airborne bronchogram consolidations. SARS-CoV-2 was negative. He started imipenem/cilastatin.
Clinical Hypothesis: Diagnosis of infectious pneumonia was initially assumed but the lack of antibiotic response, negative microbiological cultures and ANA 1:640 speckled pattern raised the hypothesis of inflammatory (like diffuse interstitial lung disease) or neoplastic cause.
Diagnostic Pathways: He underwent bronchofibroscopy. There was no evidence of infection or neoplastic cells. Bronchoalveolar lavage revealed lymphocytic alveolitis. Additional immunological study was unremarkable. CT-guided lung biopsy was compatible with organizing pneumonia. In the absence of a known etiology, we assumed cryptogenic organizing pneumonia (COP), initially treated with prednisone 0.75 mg/kg, with clinical and imagiological improvement during the next 3 months.
Discussion and Learning Points: Organizing pneumonia has been emerging as a late phase complication of COVID-19. But COP, an infrequent inflammatory lung disease that can be confused with wide range of pulmonary diseases, must not be forgotten and clinical suspicion is essential for timely diagnosis to be made.

 DOI: 10.12890/2022_V9Sup1

969 / #EV1129

HOW LONG THE INFECTIVITY LAST IN SARS COVID PNEUMONIA?

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Background and Aims: In SARS-CoV-2 infection and lung involvement the infectivity period is uncertain. Hence we are not sure of the control masures we need to implement as a public health measure toprevent further spread of the pandemic. This has led to each government making its own preference in executing control methods. Our aim was to see whether patents who were treated for COVID-19 continue to harbour the virus in their sputum and if so how long? So that input could be given to the authorities for implementation.

Methods: Some 25 patients were selected form our hospital patients who were treated for COVID-19 pneumonia (HRCT PROVED) over time of 6 months and their sputum wereexamined just before discharge or at the time of review after 10 days. Their sputum were examined by rtpcr method for the presence of virus from an accredidated labortory.

Results: Out of the cohort examined we had 30% of the samples showing positive RTPCR for COVID-19 even after 10 days of complete resolution of symptoms.

Conclusions: We hypothesise that COVID-19 infectivity last longer than it is presumed. Even after complete resolution of symptoms, people continue to be inefcetive for more than 15 days and hence preventive strategies should be focussed on methods keeping this fact in mind.

826 / #EV1130

CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION (CTEPH): A CASE REPORT

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Case Description: Chronic thromboembolic pulmonary hypertension (CTEPH) is a clinical entity characterized by an increase pulmonary vascular resistance, due to obstruction of the vascular bed by organized and partially recanalized thrombus. It is one of the most frequent causes of pulmonary hypertension, with an estimated 0.1 to 8.8% of patients with acute pulmonary thromboembolism may develop CTEPH.

Clinical Case: Female, 71 years old, autonomous. History of hypertension, dyslipidemia, obesity and deep vein thrombosis (DVT) of the left lower limb for 4 years, having been under anticoagulation for 1 year. Admitted to Emergency Service for chest pain and palpitations with 4 days of evolution. On objective examination, hemodynamic stability, with clinical congestive heart failure, gasimetrically with hypoxemic respiratory failure and analytically with a slight increase in inflammatory parameters.

Clinical Hypothesis: Chronic thromboembolic pulmonary hypertension.

Diagnostic Pathways: Chest CT angiography revealed a defect of repletion involving the emergence of the left pulmonary artery with almost complete occlusion of this structure. Echocardiogram transthoracic with precapillary pulmonary hypertension (PASP 51 mmHg), without dysfunction and/or dilatation of the right cavities. Given the findings, we hypothesized CTEPH complicated with acute pulmonary embolism (PE), having restarted hypocoagulation. From the complementary study, V/Q scintigraphy revealing bilateral segmental/subsegmental perfusion defects. The patient was referred to specialty consultation.

Discussion and Learning Points: Diagnostic hypothesis of CTEPH should be considered in the assessment of patients with pulmonary hypertension, not only for its high prevalence and mortality but, above all, for therapeutic optimization or even surgical resolution through pulmonary thromboendarterectomy (PEA).

2407 / #EV1131

LUNG HAT-TRICK

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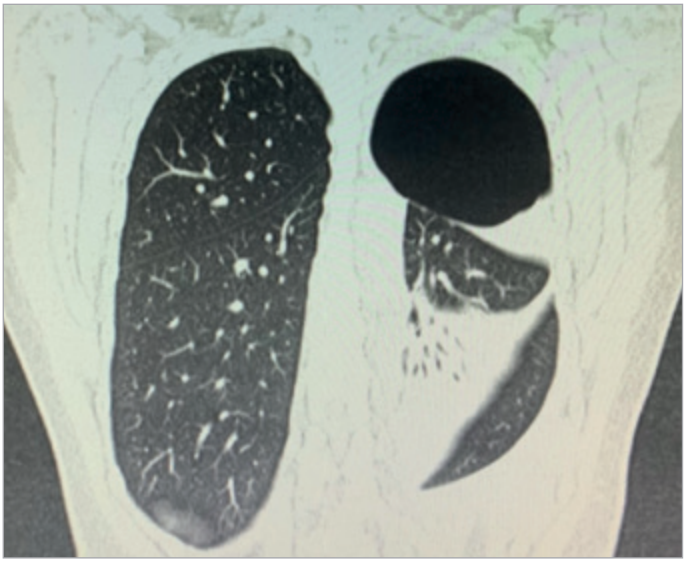
Case Description: Secondary spontaneous pneumothorax (SSPE) is defined as that which presents as a complication of an underlying lung disease. There are many possible associations, but they can be systematically grouped as follows: airways disease, infection, congenital lung disease, interstitial lung disease, connective tissue/inflammatory disease, thoracic endometriosis, malignancy or miscellaneous causes. We present an incredible image of non-acute PES, associated with a pulmonary bleb of apical location and pleural effusion in a 30-year-old woman, without any known revealing antecedents or any usual medication. The patient was observed in the emergency department for dyspnoea and sudden cough. Reference was also made to left pleuritic pain with a three-week evolution concomitant with the recognition of infection by SARS-CoV-2. The patient was submitted to drainage of the hydropneumothorax with an output of 500 mL of air and 200 mL of fluid, characterised (according to Light's criteria) as an exudate rich in eosinophils. Unlike primary spontaneous pneumothorax, PES has a high recurrence rate (above 50%,), thus recommending definitive intervention in the vast majority of patients. Pulmonary segmentectomy by video-thoracoscopy is considered to be the first line. Chemical pleurodesis is an alternative, as well as lung volume reduction surgery, the latter intended for very specific cases.

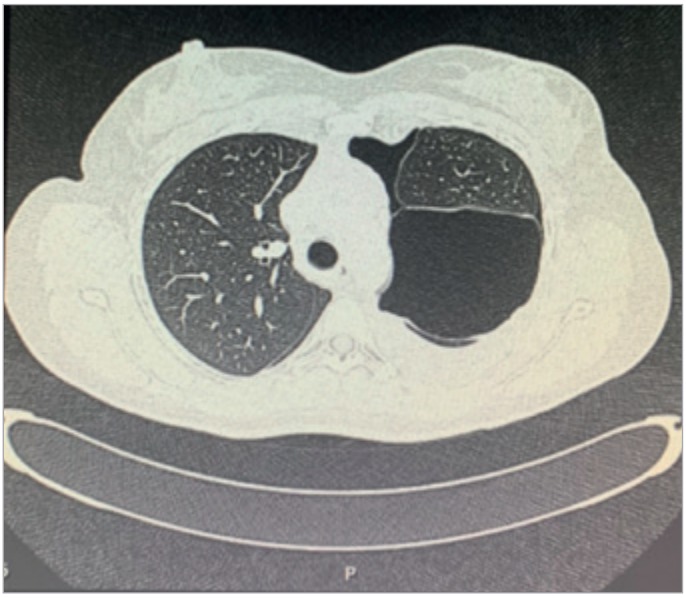
Clinical Hypothesis: Secondary or primary spontaneous pneumothorax, hydropneumothorax.

 DOI: 10.12890/2022_V9Sup1

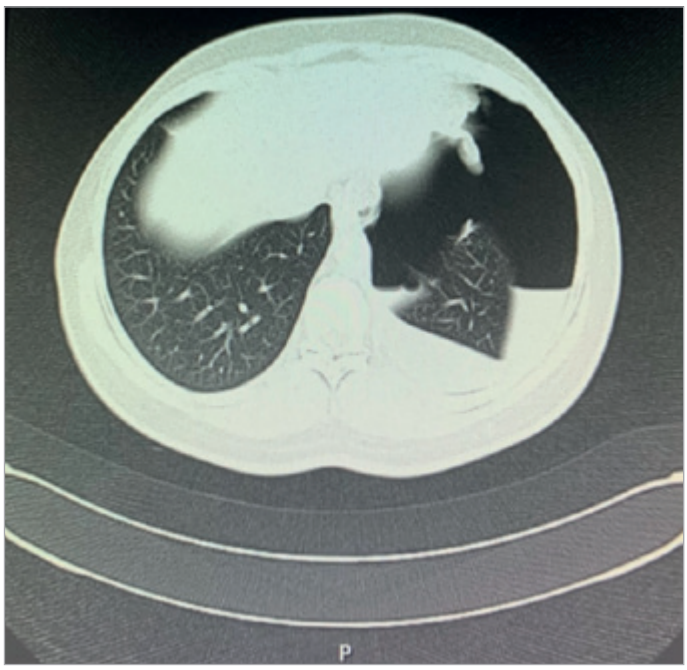
Diagnostic Pathways: Chest radiography, thoracic computed axial tomography.
Discussion and Learning Points: The importance of semiology, more specifically of thoracic percussion.



#EV1131 Figure 1.



#EV1131 Figure 2.



#EV1131 Figure 3.

228 / #EV1132

PERIPHERAL DESATURATION DURING A PANDEMIC - A DIAGNOSTIC CHALLENGE FOR A COMMON PROBLEM.

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Case Description: A 71-year-old female with a previous history of hypertension and dyslipidemia was admitted to the Emergency Department due to an altered mental status with prostration. On physical examination, neurological deficits were not objectified; she was febrile (38.2°C), normotensive, polypneic and with peripheral oxygen saturation of 79% in room air.
Clinical Hypothesis: The causes of hypoxemia are vast and its workoup during the COVID-19 pandemic can be challenging, ranging from infection, inflammatory, neoplastic and thromboembolic diseases.
Diagnostic Pathways: Arterial blood gas revealed respiratory alkalosis and hypoxemic respiratory failure.The nasopharyngeal SARS-CoV-2 viral load was negative. Brain CT, chest X-ray and electrocardiogram were performed and were unremarkable. During her stay in the emergency room, she progressed to circulatory shock. Transthoracic echocardiogram showed severe right ventricular systolic dysfunction with MCconnell sign and dilated and plethoric inferior vena cava. The suspicion of obstructive shock was confirmed by CT angiography, which

 DOI: 10.12890/2022_V9Sup1

demonstrated the presence of of occlusive thrombus in the right pulmonary artery and in the bifurcation of the left pulmonary artery. During her stay in the ED she progressed to cardiac arrest, warranting the immediate administration of alteplase. Return of spontaneous circulation was observed 10 minutes of life support.
Discussion and Learning Points: The assessment of respiratory failure is diagnostic challenge during the COVID-19 pandemic considering the limitations inherent to the mandatory reorganization of health services. Pulmonary Embolism constitutes a frequent pathology in the ER whose recognition requires a high level of suspicion, considering the myriad of possible clinical manifestations. The timely diagnosis allows the quick approach of a pathology with potential fatal outcome.

2658 / #EV1133

EGGSHELL CALCIFICATION PATTERN - AN INCIDENTAL FINDING

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Case Description: An 82-year-old man was admitted in the emergency room with multiple trauma injuries resulting from a road traffic accident. As part of the systematic evaluation, he was found to have bilateral hilar lymphadenopathy with calcification in circumferential pattern identified as eggshell calcification on computed tomography (CT). On further evaluation, he admitted having complaints of breathlessness on exertion and cough with minimal sputum for several years along with a history of cigarette smoking. Moreover, he had worked as a miner for 20 years. The patient denied history of fever, night sweats or weight loss and there was no past diagnosis of of tuberculosis. A complete physical examination was normal apart from the trauma injuries.
Clinical Hypothesis: Based on his significant occupational history and chest imaging, a diagnosis of silicosis was made.
Diagnostic Pathways: The patient was later referred to Pneumology for further evaluation and follow-up.
Discussion and Learning Points: Silicosis is a fibrotic pneumoconiosis caused by the inhalation of fine particles of silica. In simple silicosis, the most characteristic feature at CT is the presence of multiple small nodules. Enlargement of hilar and mediastinal lymph nodes may precede the appearance of parenchymal nodular lesions and its calcification is common and typically occurs at the periphery of the node. The resulting eggshell calcification pattern is highly suggestive of silicosis. This pattern can also be observed in worker's pneumoconiosis and occasionally in sarcoidosis, blastomycosis or histoplasmosis. In conclusion, silicosis may present as an incidental radiological finding several years after exposure to silica dust. The eggshell calcification presents as a classic radiological finding.

1246 / #EV1134

HYPEREOSINOPHILIA WITH CONCURRENT THROMBOEMBOLISM - A COINCIDENCE?

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Case Description: A 70-year-old female with a previous history of dyspepsia and anxiety disorder, presented to the Emergency room with weight loss for over the last six months. She denied recent travelling, changes in daily habits, and sedentary lifestyle. At admission she presented only with fatigue/asthenia, without any other relevant clinical signs (including a normal BMI). Laboratory data showed hypereosinophilia (>1,500/uL in separate examinations on different days, already present months before). Imaging studies revealed bilateral pleural effusion and bilateral pulmonary embolism (PE). The patient was prescribed anticoagulation.
Clinical Hypothesis: Cancer of unknown origin.
Diagnostic Pathways: Initial investigation excluded congenital and acquired thrombophilia, and markers for autoimmune and infectious diseases including common parasitic infections were negative. Despite negative cancer markers, clinical suspicion of cancer led to endoscopic imaging of the digestive tract which did not show focal lesions. PET scan did not confirm lymphadenopathy and bone biopsy excluded hematologic involvement.
Discussion and Learning Points: Since Trousseau's decade, authors have addressed the relationship between cancer and PE providing firm evidence of the increased risk of malignancy during follow-up of patients with PE. In this case, however, all screening was negative. Recently, it was proposed that thrombotic risk is increased in eosinophil-mediated disorders since eosinophils are a major source of tissue factor, the initiator of blood coagulation. Maino et al. showed that 16.7% patients with sporadic hypereosinophilia had concurrent PE. It seems that hypereosinophilia can function as a biomarker for early suspicion of PE.

 DOI: 10.12890/2022_V9Sup1

2084 / #EV1135

AN UNUSUAL CASE OF DYSPNEA IN A WELDER MAN

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Case Description: We report a case of a 33-year-old welder man, an active smoker, that presented with fever, dyspnea, cough and malaise, 6 hours after exposure to zinc oxide fumes without the proper working protection.

Clinical Hypothesis: Metal-fume fever is an occupational, acute poisoning disease of workers exposed to metallic oxides fume. It presents as an acute, self-limiting, flu-like symptom complex often misdiagnosed as a viral illness.

Diagnostic Pathways: The patient had respiratory failure (pO2/FiO2 143), leukocytosis, C- reactive protein of 290 mg/dL and negative test for SARS-CoV-2. His chest-radiography showed bilateral interstitial infiltrates.

Discussion and Learning Points: The patient started oxygen and anti-inflammatory medication with clinic, analytic and radiological improvement. He was discharged 9 days later. Metal fume fever is a relatively uncommon presentation to the emergency department and requires a careful medical history. It has a benign course but has the potential to become severe, especially in smokers or patients with previous cardiorespiratory diseases, demanding close surveillance.

735 / #EV1136

POST-TRAUMATIC PNEUMATOCELES IN A YOUNG PATIENT

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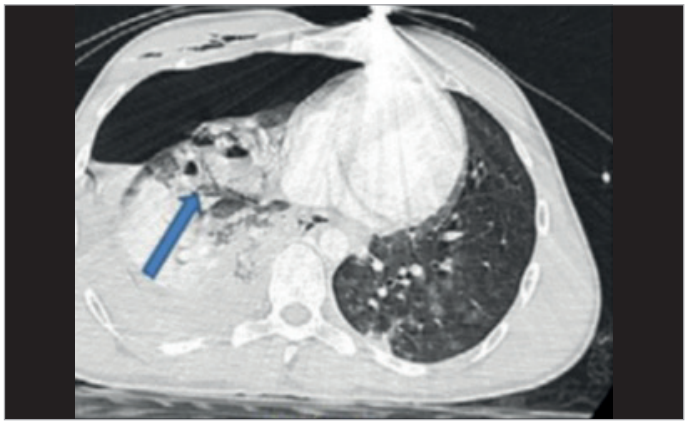
Case Description: A 17-year-old man with no relevant medical history who suffered a high-energy motorcycle accident requiring admission to the ICU with invasive mechanical ventilation (IMV), amines and stabilization of the open femur fracture he presented. A body-CT scan was performed upon admission, which also showed right hemopneumothorax and bilateral pulmonary contusion (predominantly right), placing a right endothoracic drainage tube. After 8 days in the ICU, being able to remove the IMV, he was moved to the conventional ward where a control CT scan was performed, showing almost complete expansion of the right lung and large cystic formations that seemed to correspond to post-traumatic pneumatoceles. After discharge, a new chest CT scan was performed where complete resolution of right hydropneumothorax and pneumatoceles were observed, and functional tests that showed a normal ventilatory pattern.

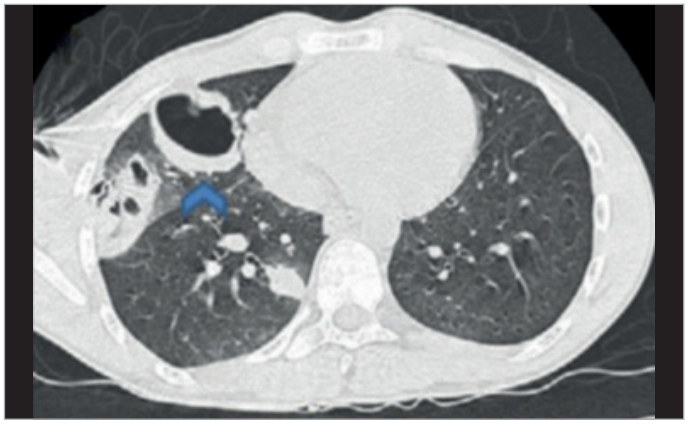
Clinical Hypothesis: Right pneumatoceles secondary to chest trauma, spontaneously resolved.

Diagnostic Pathways: In this case, given the history of chest trauma and observing the evolution of the pulmonary lesions on the CT scan, it seemed clear that they were post-traumatic pneumatoceles. Differential diagnosis includes infections (ruled out in our patient in absence of infectious signs) and congenital lesions.

Discussion and Learning Points: Pneumatoceles or pseudocysts are thin-walled cystic formations that contain air within them and that form in the lung interstitium. Post-traumatic pneumatoceles are infrequent and underdiagnosed injuries that can appear after trauma or contusion of the chest. Other possible causes may be infections, congenital cysts or cystic adenoid malformations. Post-traumatic pneumatoceles usually resolve spontaneously and therapeutic management is based on supportive treatment to ensure adequate ventilation.

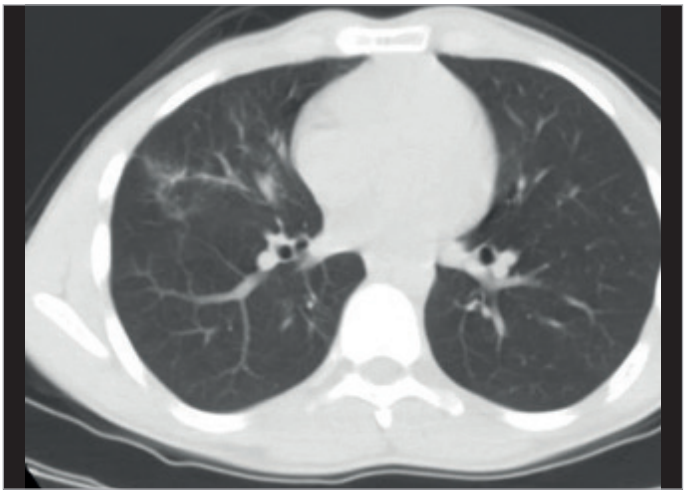


#EV1136 Figure 1: CT scan at admission

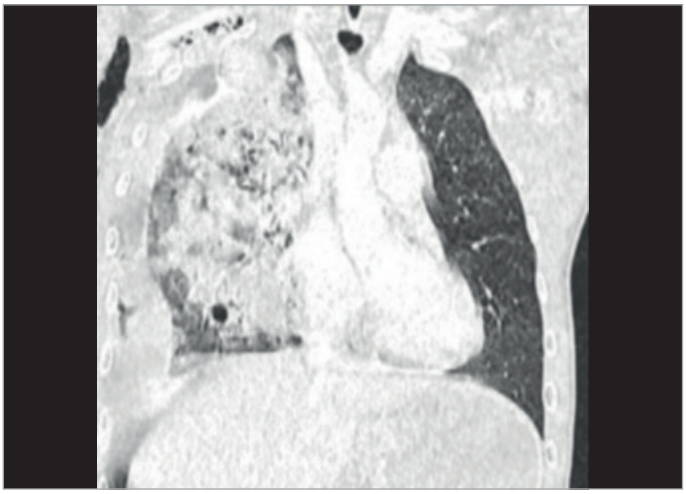


#EV1136 Figure 2: CT scan 5 days later after placing endothoracic drainage tube.

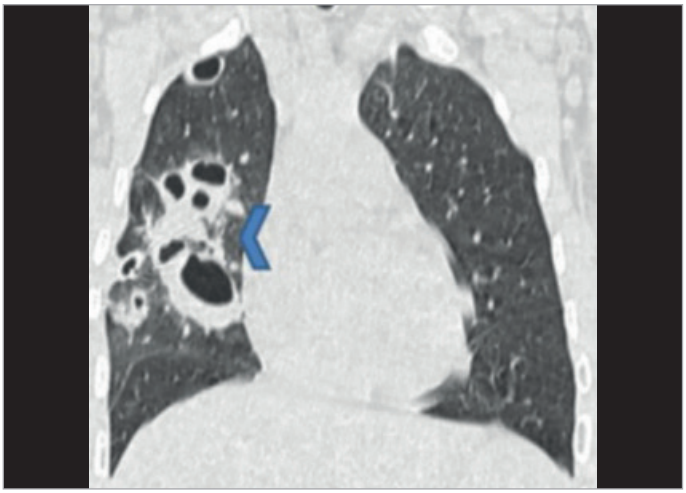
DOI: 10.12890/2022_V9Sup1



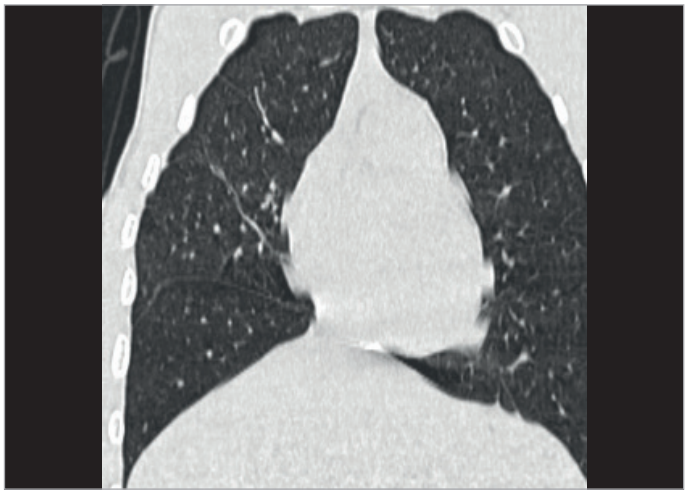
#EV1136 Figure 3: CT scan 3 months later.



#EV1136 Figure 4.



#EV1136 Figure 5.



#EV1136 Figure 6.

1050 / #EV1137

COR PULMONALE IN A YOUNG PATIENT: PRIMARY CILIARY DYSKINESIA.

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[3]Hospital Juan Ramón Jiménez, Internal Medicine, Huelva, Spain

Case Description: A 57-year-old man who was diagnosed 22 years ago with primary ciliary dyskinesia, manifested with cystic bronchiectasis (with chronic bronchial colonization by Gram negative) and also associated with chronic sinusopathy and sterility. Over time, he developed severe chronic cor pulmonale with severe pulmonary hypertension and preserved left ventricular ejection fraction. He required home oxygen theraphy and was on the waiting list for lung transplantation. In last admission, due to respiratory infection and heart failure, he required non-invasive ventilation, which he maintained at discharge. When he was evaluated a month later, he showed clinical worsening with III-IV mMRC dyspnea and moderate right ventricular dysfunction in the echocardiography. The accelerated clinical and functional worsening led to his dismissal for lung transplantation and, finally, his death.

Clinical Hypothesis: Severe cor pulmonale in a patient with primary ciliary dyskinesia.

Diagnostic Pathways: The differential diagnosis of ciliopathies includes cystic fibrosis, immunodeficiencies, respiratory allergies, gastroesophageal reflux and airway disorders. Once it is diagnosed, it is important to perform an echocardiography to assess cardiac function and optimize treatment.

Discussion and Learning Points: Primary ciliary dyskinesia is a rare disease with autosomal recessive inheritance and characterized by altered or absent ciliary movement, which produces a deficient mucocilliary clearance that leads to repeated respiratory infections causing permanent lung damage with the development

DOI: 10.12890/2022_V9Sup1

of bronchiectasis. It produces dysmotility of the sperm causing sterility, and situs inversus can also be present (Kartagener syndrome). Diagnostic tests include nasal nitric oxide test, the study of the ciliary ultrastructure and movement, immunofluorescence and genetic studies. Respiratory physiotherapy is a fundamental and the prognosis is usually unfavorable.

1792 / #EV1138

BLEBS, BULLAE AND SPONTANEOUS PNEUMOTHORAX

Sara Sá, Rita Pera, João Lagarteira, Lília Castelo Branco, Jose Miguel Brizuela, Cristiana Batouxas, Miriam Blanco

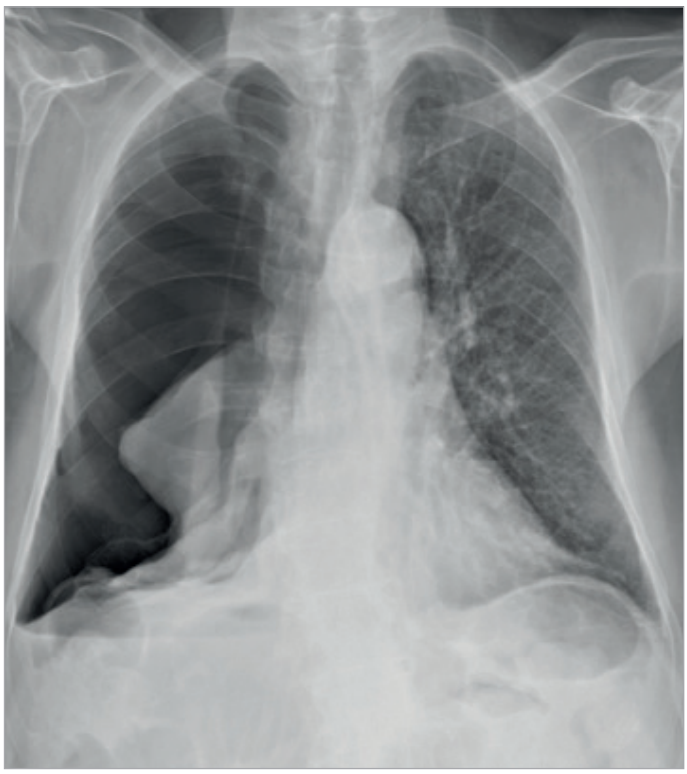
Unidade Local de Saúde do Nordeste, Unidade Hospitalar de Bragança, Serviço de Medicina Interna, Bragança, Portugal

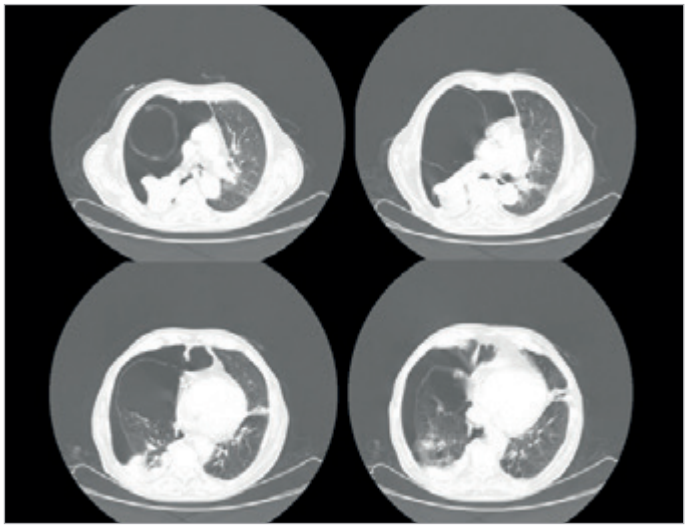
Case Description: 83-year-old male, ex-smoker of 90 SPY Prior history of hypertension, dyslipidemia, stroke without sequelae, COPD under OLD 4L/min and repetitive pneumothorax. Come to emergency room in context of worsening dyspnea (NYHA IV) and tachypnea with a progressive evolution of 3 days. At admission polypneic, with respiratory failure type 2 (pH 7.440; pCO2 46.3; pO2 49.3; sO2 88%), tachycardic 115 bpm, decreased murmur on the right.

Clinical Hypothesis: Pulmonary thromboembolism, pleural effusion and pneumothorax.

Diagnostic Pathways: Without analitic changes. Electrocardiogram showed a sinus rhythm, without changes suggestive of pulmonary thromboembolism. X-ray showed absence of lung parenchyma on the right and the CT scan confirmed the pneumothorax on the right, associating blebs and bullae. A thoracic drain was placed, with improvement in respiratory dynamics. During hospitalization, he underwent chemical pleurodesis, and was discharge clinic oriented to Pulmonology appointment.

Discussion and Learning Points: We demonstrate a case of a patient, smoker, with structural lung disease, with recurrent pneumothorax.





#EV1138 Figure 1.

1950 / #EV1139

THE TELL-TALE PNEUMONIA: INCIDENTAL FINDING OF SYMPTOMATIC NON-THROMBOTIC PULMONARY EMBOLISM AFTER VERTEBROPLASTY

Alessandro Grassi, Alessia Valentini, Erika Acquaviva, Claudio Santini

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Case Description: A 74 year-old man was admitted to Internal Medicine ward from ED with diagnosis of suspected pneumonia. He complained atypical chest pain and dyspnea without fever or other respiratory symptoms. He report PVP for traumatic

DOI: 10.12890/2022_V9Sup1

vertebral fracture two week before admission. He showed elevated heart and breathing rates, but was hemodynamically stable.
Clinical Hypothesis: Pneumonia, pulmonary embolism
Diagnostic Pathways: WBC and CRP were elevated. Arterial blood gas analysis revealed hypoxiemic hypocapnic respiratory failure. A contrast enhanced CT scan of the chest confirmed the presence of two parenchymal consolidation areas (one in the left and one in the right lung), but also detected opacification defects of calcific-like density in some pulmonary artery branches tributary to both lungs but mainly the right one. The CT scan confirmed the presence of previous multiple vertebroplasty. Antibiotic therapy resulted in resolution of symptoms and normalization of WBC and CRP but only partial normalization of arterial blood gas parameters.
Discussion and Learning Points: Vertebral cement injection procedures, as percutaneous vertebroplasty (PVP), are commonly used for the management of pain of the vertebral column usually due to fractures. They are useful and safe techniques with few complications and the same patient can undergo multiple procedures on different vertebral bodies, as often happens. In a significant percentage of cases (30%-75% for vertebroplasty) polymethylmethacrylate (PMMA) used to stabilize vertebrae can leak into blood flow and determine pulmonary embolism (PCE). In our case, PCE occurred after vertebroplasty and was diagnosed only when another cause – pneumonia - determined symptomatic respiratory failure.

897 / #EV1140

LUNG CARCINOMA- THE GREAT IMITATOR

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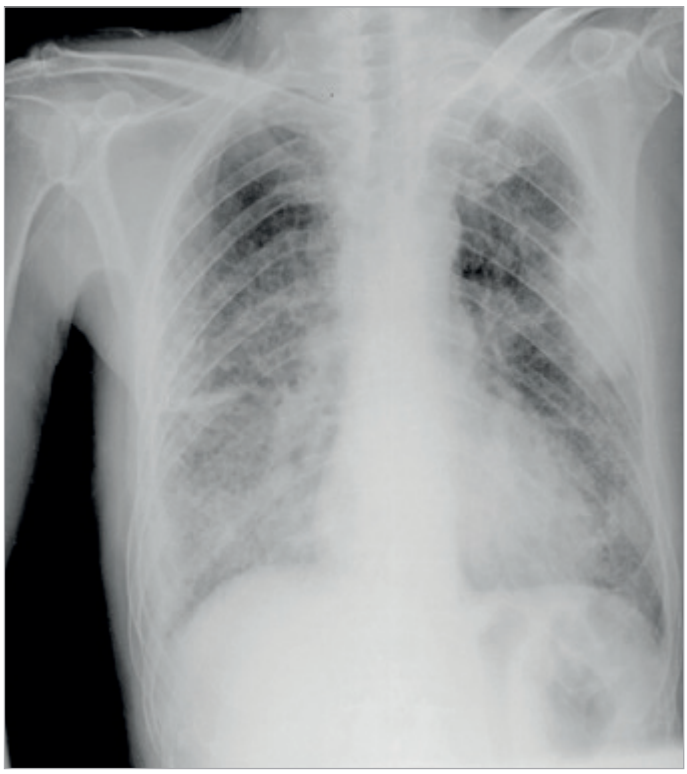
Case Description: Radiological images of two patients with a common etiology and totally different aspects are presented. The first case is a 66-year-old patient, a 100 pack/year smoker, with complaints of cough, dyspnea and mucopurulent expectoration, without other associated symptoms. Radiography showed nodular hypotransparency of 4 cm in diameter. The second case is an ex-smoker (37 pack/year) man, 72 years old, with sleep apnea syndrome. In addition to complaints had a constitutional syndrome. The chest X-ray showed a parahilar mass measuring 5 cm dimension.
Clinical Hypothesis: Non-small cell lung cancer; small cell lung cancer carcinoid tumor; primary lung lymphoma; tuberculosis, cryptococcosis, sarcoidosis.
Diagnostic Pathways: Both performed CT and biopsy of the lesion, confirming the diagnosis of pulmonary adenocarcinoma.
Discussion and Learning Points: Smoking is a risk factor that should alert us to the possibility of lung cancer, regardless of the images thoracic, and the symple x-ray most of the times can be used as first line approach to detect a mass.



#EV1140 Figure 1.

1412 / #EV1141

THE NEOPLASM BEHIND THE ABSCESS - THE IMPORTANCE OF THE DIFFERENTIAL DIAGNOSIS OF LUNG INJURY

Pedro Simões, Filipa Rodrigues, Andreia Diegues, Sandra Sousa, Micaela Sousa, João Lagarteira, Elisa Tomé, Miriam Blanco

Unidade Local de Saúde do Nordeste, Unidade Hospitalar de Bragança, Serviço de Medicina Interna, Bragança, Portugal

Case Description:Male, 59 years old, history of ischemic heart disease, diabetes and dyslipidemia. Smoker. 2 weeks of evolution of hemoptoic productive cough, right pleuritic pain, chills, fever (39.9º) and anorexia. Septic appearance, normotensive, normocardic and apyretic after antipyretic. Analytically with leukocytosis (16.39x10^9/L) and RPC 18.9 mg/dL. No respiratory failure. Diminished murmur on the right and scattered snores. Chest radiograph suggestive of a cavitated lesion in the right upper lobe (RUL). CT: cavitated lesion, 10 cm. Admitted for study of suspected lesion and treatment.
Clinical Hypothesis: Cavitated lesions may be the manifestation of pneumonia, tuberculosis, granulomas, lung cancer, primary or metastatic.
Diagnostic Pathways: Negative tumour markers, mycobacteria and bacteriological. Completed empirical antibiotic therapy course with clinical and analytical improvement. Transthoracic aspiration biopsy compatible with organized pneumonitis, with no signs of malignancy. Discharge forwarded to the Pulmonology External Consultation for Imaging reassessment. CT reassessment (1 month) maintained a cavitated lesion in the

 DOI: 10.12890/2022_V9Sup1

RUL, 7cm, with detection of another nodular formation of 5.4x4.5 cm. Bronchoscopy with washing/brushing and bronchial biopsy performed. Biopsy compatible with small cell carcinoma (SCC). No evidence of metastasis. Referred to Oncology.
Discussion and Learning Points: It may be difficult to distinguish between lung abscess and neoplasm; we suspect of malignancy in patients whose clinic does not include fever and other typical symptoms and histology does not confirm malignancy. In this case, the suspicion of malignancy is confirmed by imaging reassessment and later fiber optic bronchoscopy. The high suspicion allowed the identification of SCC at an early stage, which occurs in only 1/3 of cases.

2513 / #EV1142

A LESS COMMON CAUSE OF HYPERCAPNIC RESPIRATORY FAILURE

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Case Description: A 56-year-old man was admitted for a 3-week-long history of cough, fatigue, and dyspnoea with progressive worsening. On admission he was lethargic and had hypercapnic respiratory failure with acidosis, most likely acute-on-chronic (pH 7.231; PaCO2 83 mmHg; HCO3- 34 mmol/L; PaO2 44 mmHg). Laboratory analyses and radiography were compatible with left lower lobe pneumonia. He was started on non-invasive ventilation and antibiotic therapy, with clinical improvement but a difficult weaning from ventilation. A CT scan showed no structural lung changes and the patient had no relevant medical history or smoking habits. When the patient became abler to comply with history taking and examination, he mentioned 1-year-long fatigue and showed proximal weakness in both upper limbs. His respiratory sounds were dim and his coughing was weak.
Clinical Hypothesis: Motor neuron disease.
Diagnostic Pathways: An electromyogram was compatible with motor neuron disease affecting cervical and lumbosacral myotomes. Head CT scan showed no changes. MRI was not performed as he was unable to tolerate it. Spirometry showed a severe restrictive pattern. A diagnosis of amyotrophic lateral sclerosis (ALS) was made. The patient was started on riluzole, kept on nocturnal non-invasive ventilation, and referred to Neurology and Palliative Care consultations.
Discussion and Learning Points: Despite most cases of hypercapnic respiratory failure being caused by pulmonary disease, some cases are caused by other factors. Neuromuscular disorders are an uncommon aetiology; also, in ALS this is usually a late rather than a presenting feature. Still, neuromuscular disorders must be kept in mind when caring for these patients.

DOI: 10.12890/2022_V9Sup1

1757 / #EV1143

THE POLYMORPHISM OF INTERLEUKIN-10 AND TUMOR NECROSIS FACTOR-A GENES IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background and Aims: To study the frequency of alleles and genotypes of polymorphisms of the IL-10 (G1082A, C819T, C523A) and TNF-α (G308A) in patients with ankylosing spondylitis (AS).
Methods: 100 patients with AS (mean age 37.5±9.9; 88 men, 12 women) were examined, all patients were HLA-B27 positive. The control group included 100 healthy individuals. The groups were similar in age and sex. All examined persons are of Caucasian race, residents of the Trans-Baikal Territory. Genomic deoxyribonucleic acid isolated from white blood cells was analyzed.
Results: In patients with AS the carriage of the homozygous genotype AA of the IL-10 gene (C523A), the G allele and the homozygous genotype GG of the TNF-a gene was 2.5 times more common than in the control group, the heterozygous genotype CT IL-10 (C819T) was 2.2 times more common (Table).
Conclusions: Patients with AS are carriers of the homozygous genotype AA of the IL-10 gene (C523A), the G allele and the homozygous genotype GG of the TNF-a gene are 2.5 times more often than in healthy individuals, the heterozygous genotype CT IL-10 (C819T) is 2.2 times more often.

gens	alleles and genotypes (%)	AS	CG	OR (95%CI)	X2, (p)
IL-10 (C819A)	C/C C/T T/T	38% 48% 14%	56% 29% 15%	0,48 (0,27-085) 2.26 (1.26-4.05) 0,92 (0,42-2.03)	8.17(0,02)
IL-10 (G523A)	G A G/G G/A A/A	0,620 0,380 48% 28% 24%	0,700 0,300 51% 38% 11%	0,70 (0,46-1,06) 1,43 (0,94-2,17) 0,89 (0,51-1,54) 0,63 (1,35-1,15) 2,56 (1,18-5,55)	2,85(0,09) 6,43(0,04)
TNF-a (G308A)	G A G/G G/A A/A	0,915 0,085 85% 13% 2%	0,820 0,180 69% 26% 5%	2,36 (1,28-4,37) 0,42 (0,23-0,78) 2,55 (1,27-5,09) 0,43 (0,20-0,89) 0,39 (0,07-2,05)	7,85(0,005) 7,28(0,03)

#EV1143 Table 1.

2076 / #EV1144

DOUBLE INTEREST OF MYCOPHENOLATE MOFETIL USE IN SYSTEMIC LUPUS: THE KIDNEY YES... BUT ALSO THE HEART

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Case Description: A 33-year-old woman, with no history, presented with asthenia, inflammatory arthralgia of the small joints, and was admitted in June 2021 for acute global heart failure. Transthoracic cardiac ultrasound showed dilated cardiomyopathy with 20-25% of ejection fraction and right ventricular dysfunction without significant mitro-aortic valve disease. ProBNP at 54,420 pg/mL, troponin at 0.03µ /L, normochromic normocytic anemia at 10.4g/dL, direct coombs positive, lymphopenia at 460mm^3, serum creatinine at 23.9 mg/L and proteinuria / creatininuria 2.48 g g. Cardiac MRI suggested the diagnosis of myocarditis.
Clinical Hypothesis: The etiological assessment did not identify an infectious, toxic or medicinal cause. The clinical picture suggested the possibility of an autoimmune disease
Diagnostic Pathways: The patient presented lesions of cutaneous vasculitis, oral ulcers with polyarthritis. The autoimmune workup showed anti-nuclear antibodies at 1/1280 with anti-native DNA antibodies at 210 IU/mL (N <10), positive antiSM Abs. Endomyocardial biopsy has been discussed but not performed. The diagnosis of lupus myocarditis complicated by cardiogenic shock was made, in addition to kidney damage. In addition to the medical treatment of heart failure, treatment was initiated with corticosteroids, combined with mycophenolate mofetil. At day 15, the left ventricular ejection fraction reached 45-50%, with clinical improvement in signs of heart failure and general condition.
Discussion and Learning Points: The existence of myocarditis without obvious aetiology, should lead us to seek systemic lupus in order to start aetiological treatment in addition to cardiac treatment. Currently, there is no codified treatment for lupus myocarditis, but mycophenolate mofetil appears to be a promising treatment.

 DOI: 10.12890/2022_V9Sup1

1265 / #EV1145

LONG STORY SHORT: STATIN-INDUCED AUTOIMUNE NECROTIZING MYOSITIS

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Case Description: A 78 years old male developed proximal symmetrical weakness that increased for two months. It had a big impact on his quality of life, especially on his ability to walk. Patient also complaint about dysphagia, dysphonia and weight loss. He was previously diagnosed with hypertension, diabetes, dyslipidemia, thyroidectomy, to which he was medicated with olmesartan/amlodipine, furosemide, metformin, gliclazide, atorvastatin and levothyroxine.

Clinical Hypothesis: Hypothyroidism Statin-induced autoimmune necrotizing myositis.

Diagnostic Pathways: Initial laboratory workup revealed rhabdomyolysis, with CPK of 18631U/L, myoglobin of 8599ng/mL and aldolase of 102.4 U/L. Thyroid function tests were also altered, which lead to consider hypothyroidism as the most probable cause and, hence, an incorrect initial work up. After a long journey, the HMGCoA reductase antibody came as positive as well as the muscle biopsy, compatible with necrotizing autoimmune myopathy. Additionally, auto-antibodies were negative, including ANA and myosin antibodies. Viruses, such as HIV, hepatitis B and C viruses, and other potentially infectious agents came back as negative. Body CT-scans failed to identify active malignancy. Electromyography showed a myopathic pattern and ECG and echocardiogram were normal.

Discussion and Learning Points: It was started high-dose corticosteroids for 3 days and then oral prednisolone plus methotrexate. It was noticed clinical and analytical improvement, with drops in CPK levels. Although a rare etiology, there must be a high level of suspicion for SIANM in statin users with proximal muscle weakness and extremely high CPK levels, in order to start treatment and prevent disability.

177 / #EV1146

GIANT CELL ARTERITIS: WHEN CLINIC SPEAKS FROM ITSELF

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Case Description: An 87-year-old male with previous rheumatic polymyalgia (PMR) and bilateral glaucoma presented with a two monts history of new-onset global pulsatile headache, asthenia, occasional low-grade fever, scalp hyperesthesia, decreased visual acuity and jaw claudication. At examination, the patient was afebrile, with otherwise normal vital signs, and he had bilateral palpable rigid temporal arteries (TA). Neurologic, cardiovascular and respiratory exams were normal. Laboratory results revealed normocytic normochromic anemia and elevated inflammatory markers (erythrocyte sedimentation rate, C-reactive protein and ferritin). Protein electrophoresis showed alfa 1 and 2 and beta peaks.

Clinical Hypothesis: Giant cells arteritis (GCA) was hypothesized.

Diagnostic Pathways: Temporal artery ecodoppler identified accentuated hypoechoic parietal thickening throughout its segment. A thoroco-abdomino-pelvic angyo-CT excluded large vessels involvement. Based on a typical presentation corroborated by the initial workup the diagnosis of GCA was assumed. TA biopsy was not performed once it wouldn't change therapeutic strategy. Corticotherapy was started with clinical and laboratory improvement. The patient remains asymptomatic with low-dose corticotherapy after one year.

Discussion and Learning Points: GCA should be considered in elderly patients with new onset headache. PMR symptoms, TA abnormalities and elevated inflammatory markers are definite red flags.

2110 / #EV1147

SYSTEMIC LUPUS ERYTHEMATOSUS-INDUCED ACUTE ERYTHROID APLASIA AND AMEGAKARYOCYTIC THROMBOCYTOPENIA

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Case Description: We report of a 29 year-old female with diagnosis of SLE presenting with severe anemia and thrombocytopenia due to a bone marrow immunological blockage. Patient, who initially refused transfusions, was successfully treated and had a very fast hematological response to steroids, immunoglobulin, plasma exchange, eltrombopag and rituximab.

Clinical Hypothesis: Anemia and thrombocytopenia are common features in patients with systemic lupus erythematosus (SLE). However, erythroid aplasia and amegakaryocytic thrombocytopenia as the main physiopathological causes without other associated disorders have been rarely described.

Diagnostic Pathways: BM cytology revealed a complete absence of megakaryocytes and erythroid cells, preserved myeloid (~80%), lymphoid (~18%) and plasmacytoid (~2%) precursors, with no findings of myelofibrosis or atypical cells.

Discussion and Learning Points: This is a very interesting and unusual case and it is possible that in this kind of patients plasma exchange associated with immunosuppressant therapy may lead to a faster, more effective and sustained recovery of the hematological disorders.

 DOI: 10.12890/2022_V9Sup1

939 / #EV1148

IT'S NEVER LUPUS

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Case Description: 62 year-old female, caucasian, italian, recently moved to Portugal. Diagnosed with systemic lupus erythematosus in 1989, followed in reumatology consult in Italy. The patient was seen in internal medicine consult, to mantain follow up. History of two deep vein thrombosis, two pulmonar embolism, five abortions. The patient denied constitutional symptoms, artharlgias, mucocutaneous, cardiac, pulmonar, renal, gastrointestinal, neurological, neuropsychiatric or opthalmic involvement. The patient was a heavy smoker. Medicated with cumadine, with target INR of 3-3.5. On examination, sistolic murmur and weazing on Lung auscultation.

Clinical Hypothesis: The history of thromboembolic events, and absence of diagnostic criteria for Lupus points to probable Anti-phospolipidic Syndrome.The murmur leads to probable valvulopathy, posibly a non-infecious endocarditis. The weazing could be either do to restrictive or obstrutive disease.

Diagnostic Pathways: General blood work: no hematologic alteration, aged apropriate kidney function, increased TP and APTT, INR 3.5, normal inflamatory markers. Blood Cultures: Negative. Autoimunity panel: ANA and Anti-DsDNA negative. Anti-Cardiolipin and Anti-beta 2 glipoprotein antibodies, 10 times over normal range, presence of Lupic anticoagulante was detected. Thoracic radiography: Flattened hemidiaphragms, no other changes. Transtoracic ecocardiograma: Tricuspid valve vegetation mild tricuspid insuficiency. Without other alterations. Spirometry: Decreased FEV1/FVC, no variation with bronchodilation. CAT Questionaire : 11 points.

Discussion and Learning Points: The final diagnosis: Anti-phospholipic syndrome. Possible Systemic lupus erythematosus. Non- infectious Endocarditis, Libman-Sacks.Chronic obstrutive lung disease GOLD 2B. This cases shows the importante of complete anamnesis, good physical examination and their correlation, to create broad hypothesis and direct exams. Anti-phospholipic syndrome/Lupus are a chronic diseases, with a wide range of complications, requiring close follow up.

1181 / #EV1149

IT'S NEVER TOO EARLY TO THINK ABOUT IT: DESCRIPTIVE ANALYSIS OF 20 CASES OF SECONDARY AMYLOIDOSIS

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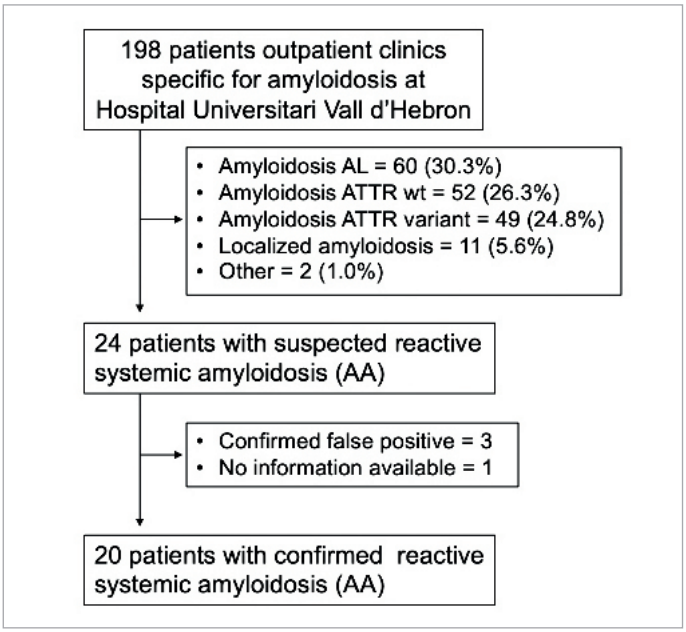
Background and Aims: Systemic deposition of amyloid proteins can occur because of unhindered inflammation. Our aim was to describe the characteristics of a cohort of patients with reactive systemic (AA) amyloidosis.

Methods: All patients with AA amyloidosis from a dedicated outpatient clinic were retrospectively analysed.

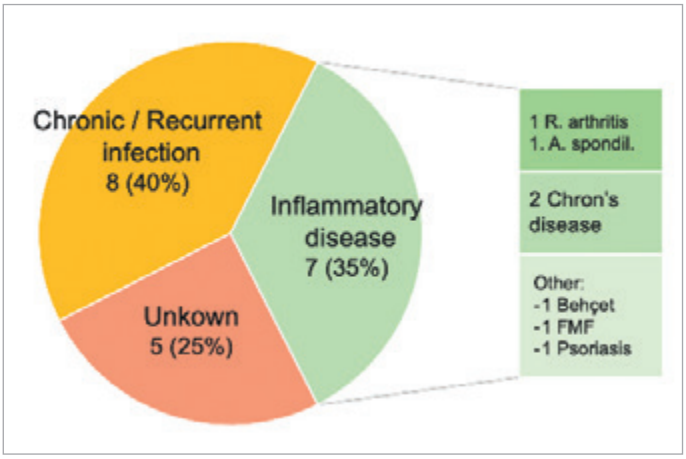
Results: 24 out of 198 patients with amyloidosis (12%) were diagnosed with AA amyloidosis. Four patients were excluded (confirmed false positives or inability to check medical records (Figure 1A)). Median age at diagnosis was 56.96 years old [range 32.88 - 83.45] and half were women. 8 cases (40%) were secondary to chronic infection and 7 (35%) to autoinflammatory condition with 5 patients (25%) from an unknown cause (Figure 1B). 12 patients (60%) were asymptomatic at diagnosis. The most common presentation was limb oedema. 5 patients (25%) had gastrointestinal symptoms (mainly diarrhoea and bleeding). Median time from first symptom or laboratory alteration to diagnosis was 4.04 months [range 0.56 - 67.73]. Overall, all patients had renal involvement (proteinuria and/or impaired GFR in 85% and 65% respectively). Median creatinine was 1.38 mg/dL [0.41 - 9.93]. 8 patients (40%) had neuropathy and 10 (50%) intestinal infiltration. Median serum amyloid A (SAA) at diagnosis was 22.8 mg/L [4.8-501]. Seven patients received anakinra (anti-IL1) and 4 tocilizumab (anti-IL6). After therapy, median SAA level was 8.81 mg/dL [2.4 - 225]. 7 patients died during the follow-up.

Conclusions: Systemic amyloidosis is mainly asymptomatic but frequently progresses to end-stage disease, indicating that high suspicion is essential. Proteinuria is almost universal while neuropathic and digestive symptoms should be evaluated.

DOI: 10.12890/2022_V9Sup1



#EV1149 Figure 1A.



#EV1149 Figure 1B: Etiology of Reactive Amyloidosis.

1242 / #EV1150

2 IN 1 - THE AUTOIMMUNITY CHALLENGE

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Case Description: Stevens–Johnson syndrome (SJS) is life-threatening dermatological condition that is characterized by mucositis, epidermal detachment and erosions. Erythema multiforme exudativum Stevens-Johnson syndrome has been described in association with the administration of numerous medications. The underlying etiology in SJS is almost invariably secondary to drugs. Rarely, other causes such as systemic lupus erythematosus (SLE), infections and vaccinations have been implicated.

Clinical Hypothesis: This report describes one patient with SLE (inaugural) who presented with manifestations of SJS with a clear drug causality. The patient presented with photodistributed macular exanthema, which evolved to target lesions, bullae, erosions or sheet-like detachment, and gynecological lesions. This was associated with oral mucositis and conjunctivitis. The onset of the rash was insidious with a protracted clinical course.

Diagnostic Pathways: Although SJS is almost invariably due to medications, it may, rarely, be an initial presentation of lupus.

Discussion and Learning Points: Autoimmunity challenge (Figure).

#EV1150 Figure 1.

1954 / #EV1151

CLINICAL AND SEROLOGICAL ASSOCIATIONS OF ANTI-SMITH AUTOANTIBODIES IN TUNISIAN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: Systemic lupus erythematosus (SLE) is a chronic autoimmune disease recognized with the variability of clinical manifestations and the presence of multiple autoantibodies. Anti-Smith (anti-Sm) antibodies are highly specific for SLE. The aim of this study was to determine the association of anti-Sm antibodies with clinical manifestations, serologic profile and disease activity in Tunisia.

Methods: It was an analytic study of patients who had ACR 1997 criteria and who were tested for anti-Sm antibodies. Clinical and

 DOI: 10.12890/2022_V9Sup1

laboratory data were obtained at the time of the anti-Sm antibody test and were compared between patients with and without that antibody.
Results: This study included 387 patients. The medium age was 35 years old [15-91] and 88.9% was women. Anti-Sm antibodies were present in 137 patients (35.4%). Anti-Sm were significantly more frequent in adult SLE (p=0.035) and less frequent in elderly SLE (p=0.007). Clinical features associated to positive anti-Sm antibodies were fever, malar rash, oral ulcer, alopecia, digital ulcer, central nervous involvement and digestive manifestations. There was no statistical significant difference in lupus nephritis and serositis. Anti-Sm antibodies was significantly associated with positive anti-DNA antibodies, anti-SSA, anti-nucleosome, anti-Histone and anti-RNP and no other biologic association was found. The baseline disease activity compared between patients with and without anti-Sm antibodies showed a significant association with SLEDAI score suggesting that positivity of anti-Sm antibody may help assess the disease activity in SLE.
Conclusions: Anti-Sm antibodies could be associated with some clinical and serological profiles and may serve as a useful marker for assessment of the disease activity.

2056 / #EV1152

RENAL INVOLVEMENT IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: Systemic lupus erythematosus (SLE) is an autoimmune disease with high clinical and immunological polymorphism. Kidney damage is one of the serious manifestations of SLE. This study aimed to describe particularities of lupus nephritis (LN) in Tunisia.
Methods: It was a retrospective and descriptive study about patients followed in an internal medicine department for SLE for a period of 25 years [1995-2020]. The diagnosis of SLE was obtained according to the ACR 1997 criteria. Patients with LN were described.
Results: The study included 186 patients with SLE. LN was found in 60 patients (32.2%) with a sex ratio F/M=5. The mean age at diagnosis was 32.9 years old. Renal involvement was indicative of SLE in 81.7% of cases. The most observed abnormality (98%) was proteinuria, over 0.5g/24h. Other manifestations were nephritic syndrome (36.7%), hematuria (31.7%), leukocyturia (30%), and renal failure (30%). Renal puncture biopsy was performed in 91.7% of patients. LN was detected in 85% of cases. It was a class IV of LN (40.7%), a class II (14.8%), a class III (13%), a class V and I in 7.4% each. The association of 2 classes was found in 16.9% of cases. LN was significantly associated with malar rash (p=0.002), alopecia (p=0.03), vascular involvement (p=0.031), and anti-SSA antibodies (0.018). Treatment was corticosteroid in 97.7% of patients with immunosuppressive therapy in 78.3% such as cyclophosphamide and mycophenolate mofetil.
Conclusions: Kidney damage in SLE is one of the life-threatening manifestations. Class IV nephropathy has the worst prognosis and was the most frequent in this study.

2499 / #EV1153

EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS (CHURG-STRAUSS SYNDROME): A COMPLEX DIAGNOSIS IN THE MANAGEMENT OF HYPEREOSINOPHILIA

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Case Description: Eosinophilia comprehends a group of commonly experienced clinical situations in Internal Medicine. It is classified into mild (500-1500 cells/µl), moderate (1500-5000 cells/µl) and severe for an eosinophil count >5000 cells/µl.
Clinical Hypothesis: A 74-year-old man, with a history of asthma, presented with complaints of persistent fever. Before the admission to our hospital, he presented skin rash on the scalp associated with fever, arthralgia, widespread myalgias with a worsening trend and hypereosinophilia. Physical examination showed inflamed and infiltrated skin lesions on the right shoulder, on the left lower limb, and on the right lateral cervical region. The ENT examination reported a polypoid formation of the right nasal cavity.
Diagnostic Pathways: Laboratory studies confirmed a severe hypereosinophilia (maximum eosinophilic count 6320 cells/µl), TnT elevation (3500 ng/L) and negativity for the antineutrophil cytoplasmic antibodies. A myocardial involvement was suspected and confirmed by imaging. Biopsy of the skin lesions revealed eosinophilic granulocytes in the dermis and in the perivascular site (eosinophilic vasculitis), in addition histological examination of the polypoid tissue presented eosinophilic granulocytes. These findings in conjunction with the presented symptoms, led to a diagnosis of eosinophilic granulomatosis with polyangiitis (EGPA). Treatment with corticosteroids and mycophenolate mofetil was started.
Discussion and Learning Points: ANCA-negative EGPA defines a subset of patients with endomyocardial involvement and lung infiltrates.

 DOI: 10.12890/2022_V9Sup1

610 / #EV1154

TUMOR-LIKE LESION AND GIANT CELL ARTERITIS

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Case Description: A 50-year-old male was admitted to hospital due to pulsating headache localized at the right temporal region. Ischaemic and haemorrhagic strokes were excluded with a brain CT scan.
Clinical Hypothesis: The consulting Neurologist adviced for a Doppler US of the temporal arteries, suspecting Horton's arteritis (according to the 1990 American College of Rheumatology GCA classification criteria; (Hunder G.G. 1990)).
Diagnostic Pathways: The preliminary US of the temporal artery was highly suggestive for GCA; the subsequent temporal artery biopsy, instead, unexpectedly resulted negative for histopathological features characteristic of this disease. In consideration of persistent abdominal pains a PET-CT scan was carried out to exclude gastrointestinal involvement: high FDG uptake was exclusively found to be localized at the tail of the pancreas. Suspecting a malignancy, the lesion was investigated with total body CT scan and abdominal MRI which showed it to be more compatible to focal oedematous pancreatitis rather than to a pancreatic malignancy. After corticosteroid therapy, at follow-up, two months later, the MRI showed complete resolution of the focal pancreatitis.
Discussion and Learning Points: Non-classical manifestations of GCA are rare, less than 100 cases of tumor-like lesions (TLL) have been described in literature (Kariv 2000) and even less cases of pancreatitis associated with GCA. Indeed, most of the TLL were observed in Wegener's granulomatosis whilst GCA was only the second most common vasculitis. On the other hand, most cases of GCA associated with pancreatitis seem to be drug induced, though how the response is elicited is still unknown.

871 / #EV1155

ANTI-PHOSPHOLIPID SYNDROME - PRESENTATION WITH PORTAL VEIN THROMBOSIS

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Case Description: A 38-year-old man hypocoagulated with warfarin due to popliteal deep venous thrombosis (DVT) 3 months before, presented to the Emergency department with intense dyspnea. He was hemodynamically stable, apyretic, with type 1 respiratory failure and INR value at therapeutic levels.
Clinical Hypothesis: Pulmonary thromboembolism.
Diagnostic Pathways: Thoracic and abdominal angio-CT showed a right pleural effusion of large volume, pericardial effusion of medium volume, pulmonary thromboembolism. ascitis of medium volume, thrombosis of the portal vein and thrombus in the infrarenal inferior vena cava up to the iliac bifurcation. Thoracocentesis was performed and the pleural fluid was compatible with transudate. An upper digestive endoscopy was also performed, with evidence of grade IIII esophageal varices. He presented a positive lupus inhibitor with positive direct Coombs test, that was positive again 12 weeks later. The rest of autoimmune study was negative. Paroxysmal nocturnal hemoglobinuria, human immunodeficiency virus, viral hepatitis B or C, nephrotic syndrome, and Wilson's disease were excluded. The diagnosis of Anti-Phospholipid Syndrome (APS) was assumed.
Discussion and Learning Points: The diagnosis of Anti-Phospholipid Syndrome implies at least one clinical criteria (vascular thrombosis, fetal death) and at least one laboratory criteria (one or more positive antibodies on two occasions- anti-cardiolipin antibody, anti-beta2-glycoprotein, and lupus anticoagulant). DVT is the main manifestation in APS. The most common location is the deep veins of the lower limbs; other sites include pelvic, renal, pulmonary, hepatic, portal, axillary, subclavian, ocular, cerebral, and inferior vena cava veins. This case is interesting given the presentation of thrombosis in the portal vein in a patient who was previously hypocoagulated.

914 / #EV1156

BEHÇET'S DISEASE: A RETROSPECTIVE STUDY IN A THIRD-LEVEL HOSPITAL

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Background and Aims: Retrospective descriptive study of cases of Behçet's disease (BD) seen in the systemic autoimmune disease consultations of the Internal Medicine Department of the Navarra Hospital. The aim of our study is to present our experience in BD and review the literature on this entity.
Methods: The records of 45 patients diagnosed with BD from January 1995 to December 2020 were reviewed according to the International Criteria for BD.
Results: A total of 45 patients were found, of whom 34 were female (76%) and 11 male (24%). The median age of disease onset was 35 years. The disease debut symptom was oral ulcers in 20 patients, genital lesions in 10, uveitis in 11 and erythema nodosum in 4 patients. The prevalence of the HLA-B51 allele was present in 28 patients (62%). Recurrent oral ulcers were present in all cases, while recurrent genital ulcers were present in 29 cases (64%). Ocular lesions were present in 28 patients, with uveitic symptoms being the most prevalent in 18 cases (64%). Skin lesions appeared in 21 patients, erythema nodosum was evident in 9 cases and

 DOI: 10.12890/2022_V9Sup1

pseudofolliculitis in 7 cases. Neurological manifestations were found in 3 patients (7%), in the form of cerebral vasculitis.
Conclusions: Our results are similar to those observed in other series in the Mediterranean area of BD, with the exception of the gender distribution, as our sample is predominantly female. Further studies are needed to help us decipher and understand the aetiology and pathogenesis of the disease in order to avoid the complications associated with the disease.

922 / #EV1157

EFFECTIVENESS OF BELIMUMAB IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN DAILY CLINICAL PRACTICE. EXPERIENCE IN AN AUTOIMMUNE UNIT OF A TERTIARY HOSPITAL

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Background and Aims: Descriptive study on the clinical experience of patients with systemic lupus erythematosus (SLE) in a tertiary hospital. The aim of the study is to describe the clinical experience with the use of belimumab (BLM).
Methods: Retrospective descriptive study on the use of BLM in 12 patients with SLE centre during the period from 1 January 2016 to 31 September 2019.
Results: 12 patients with SLE who had received BLM were included, of whom 100% were women, with a mean age at diagnosis of 48 years. In terms of clinical manifestations during the course of the disease, articular manifestations were the most frequent (100%) followed by cutaneous (75%), haematological (67%), renal (17%), pulmonary (8%) and cardiac (8%). In terms of treatment prior to starting BLM,100% of patients had received antimalarials and corticosteroids, 75% methotrexate, 50% azathioprine and 33% mycophenolate mofetil. The main manifestation for which treatment was indicated was joint manifestations followed by skin manifestations. Seventy-five percent of patients experienced improvement of skin and joint symptoms. In two of them (17%), treatment was discontinued due to ineffectiveness after a median duration of 16 months. Regarding concomitant treatments, in 3 (25%) BLM treatment led to dose reduction of concomitant treatments (methotrexate and mycophenolate), in 2 to discontinuation of methotrexate and azathioprine, in 3 to discontinuation of prednisone and in 8 cases to dose reduction of prednisone.
Conclusions: In clinical practice, BLM has been shown to be a therapeutic alternative to be considered in SLE patients with skin or joint manifestations refractory to conventional immunosuppressants.

938 / #EV1158

USE OF BIOLOGIC THERAPIES IN SYSTEMIC AUTOIMMUNE DISEASES IN A TERTIARY HOSPITAL

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Background and Aims: The currently approved therapeutic indications for the use of biological therapies focus on rheumatic diseases, inflammatory diseases of the digestive system and skin diseases. The aim of this study is to learn about the use of biologic therapies in patients with systemic autoimmune diseases under follow-up by the Autoimmune Unit of Internal Medicine of a tertiary hospital.
Methods: Retrospective descriptive study. A total of 87 patients were selected from the day hospital of the Autoimmune Unit of Internal Medicine who were receiving biologic therapy as of September 2019.
Results: The sample consisted of 82 patients, of whom 49 were female and 33 male, with an average age of 50.6 years. Of the 82 patients, 41% were treated with adalimumab, 15% with belimumab, 13% with tocilizumab, 10% with rituximab, 9% with golimumab, 5% with anakinra, and 6% with certolizumab. The majority of cases were patients with idiopathic uveitis or uveitis associated with other diseases (37%), systemic lupus erythematosus (17%), spondyloarthropathy (13%) and Behçet's disease (11%), accounting for more than 2/3 of the series. A favourable response was obtained in 80% of cases, and the most commonly used drugs were adalimumab, belimumab and tocilizumab. Adverse effects were observed in 13%, in some cases without being able to determine that they were directly related to the administration of the drug.
Conclusions: As these are new therapies and special circumstances, it is very important to accumulate experience and knowledge of the patients receiving these treatments, as this is essential to assess their safety in real life.

947 / #EV1159

PAGET'S DISEASE OF BONE IN THE ZYGOMATIC ARCH: AN ATYPICAL LOCALISATION

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Case Description: We describe the case of a 79-year-old woman with a history of ovarian adenocarcinoma, operated on in 2004, followed by gynaecology, who was admitted to Internal Medicine for progressive asymptomatic growth of the left zygomatic arch of one year's evolution. The patient reports no spontaneous

 DOI: 10.12890/2022_V9Sup1

musculoskeletal pain except in the lumbosacral region in relation to movements.Long-standing hearing loss. No headache, vertigo or other neurological symptoms. On examination, there was a painless tumour on palpation with a bony consistency. A complete analytical battery shows elevated alkaline phosphatase with a normal cholestatic profile. The 24-hour urine analysis showed no abnormalities.
Clinical Hypothesis: Given the history of neoplasia, a thoracic-abdominal CT scan was performed, which ruled out the presence of a solid neoplastic process. A simple radiological study showed blastic and mixed areas in the cranial region. The study was completed with a cranial bone CT scan showing findings compatible with PD with craniofacial involvement. Intravenous zoledronate was administered with prior hydration without complications, and extra calcium and vitamin D supplementation was prescribed until the patient was reviewed.
Diagnostic Pathways: Within the differential diagnosis of lytic-blastic lesions we can find: avascular bone necrosis, orbital cellulitis, metastasis of solid tumours, multiple myeloma...
Discussion and Learning Points: This is a curious case of an uncommon location of PD in the zygomatic arch, since the most frequent locations are the pelvis, dorsal-lumbar spine, femur, tibia and skull. PD usually presents asymptomatically in the elderly and is discovered by characteristic radiological alterations or elevated alkaline phosphatase levels, as in the clinical case of our patient.

1053 / #EV1160

CHRONIC LOWER BACK PAIN – A RARE PRESENTATION OF GIANT CELL ARTERITIS

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Case Description: 75-year-old female presents with lower back pain radiating to her lower limbs, 13Kg weight loss in 6 months and increased C-reactive protein (11.3 mg/dL). She has history of breast cancer and a sibling with an aneurysm.
Clinical Hypothesis: She was admitted for suspected spondylodiscitis, excluded after negative blood cultures and normal CT. She had high Sed Rate (105 mm/h) and anemia of chronic diseases. Other infectious causes (hepatitis B, C, HIV, syphilis, tuberculosis), neoplastic (normal digestive tract study, body CT and gynecological examination) and autoimmune causes (negative ANA, ENA, RF, ANCA, ASCA) were excluded.
Diagnostic Pathways: Due to worsening of symptoms, new-onset neck pain - without inflammatory signs or neurological deficits - and absence of temporal artery pulses, a doppler ultrasound was performed with dubious results (arteritis vs atherosclerosis). She underwent a temporal biopsy showing a mononuclear infiltrate, giant cells and elastic lamina destruction of the arterial wall, compatible with GCA. PET-FDG revealed diffuse inflammatory process in the wall of the thoracic and abdominal aorta, and cervical (subclavian) and iliac branches, explaining persistent neck and lower back pain. Treatment with prednisolone 50 mg with progressive weaning, lead to complete resolution of complaints.
Discussion and Learning Points: ACG affects medium and large-caliber vessels, causing, due to thrombosis, hemorrhage or hypoperfusion, a myriad of symptoms dependent on the affected site. In this case, lower back pain due to inflammation of the abdominal aorta and its branches. Suspicion must be elevated, particularly in elderly patients with unclear constitucional symptoms. PET is capable of detecting inflammation in inaccessible places and is an essential tool in atypical GCA.

422 / #EV1161

ANTIPHOSPHOLIPID SYNDROME (APS) PRESENTING AS DIFFUSE ALVEOLAR HEMORRHAGE (DAH)

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Case Description: A 33-year-old black male prisioner with smoking habits presented to the emergency room with a five-day history of dyspnoea, coughing and hemoptysis. Occupational history revealed contact with rats and bleach at the prison facilities. Physical examination showed tachypnoea and hypoxemia. Initial laboratory evaluation revealed hemoglobin of 7.8 g/dL, 14.67x109/L leukocytes (12.37x109/L neutrophils), 108x109/L platelets, CRP 10.44 mg/dL and an ESR 123 mm/h. Thoracic CT-scan demonstrated a bilateral nodular pattern with surrounding ground-glass opacities, compatible with diffuse alveolar hemorrhage. Within 12 hours, the patient worsened, requiring invasive mechanical ventilation and transfer to intensive care. Bronchoscopy unveiled blood and blood clots. Methylprednisolone 1g/day IV was initiated. Further deterioration lead to extracorporeal oxygenation for 3 days. He eventually improved, being discharged 20 days later under anticoagulation with warfarin.
Clinical Hypothesis: Diffuse alveolar hemorrhage.
Diagnostic Pathways: Pneumoccocal, *Legionella pneumophila* and *Leptospira* urinary antigens, as well as *Mycoplasma pneumoniae* and *Chlamydia pneumoniae* serologies were negative. Extensive respiratory viral DNA panel was negative. Blood and bronchoalveolar lavage cultures were negative. Cocaine urinary metabolites were absent. Comprehensive autoimmune laboratory testing was unremarkable, except for positive lupus anticoagulant, anti-cardiolipin IgM 72 MPL/mL and anti-β2-glycoprotein-I IgM 42 U/mL. 12 weeks after discharge, repetition of these tests confirmed primary APS diagnosis.
Discussion and Learning Points: Antiphospholipid syndrome is an autoimmune disease characterized by recurrent thrombotic events that, in rare cases, manifests as diffuse alveolar hemorrhage. The later often leads to acute respiratory distress syndrome and death. Differential diagnosis includes autoimmunity, infections,

 DOI: 10.12890/2022_V9Sup1

drugs. APS case series identified pulmonary capillaritis as DAH pathological mechanism. High-dose glucocorticoids must be given promptly.

2509 / #EV1162

ADULT ONSET STILL'S DISEASE AFTER COVID-19 INFECTION

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Case Description: We present the case of a 28-year-old woman with chronic microcytic anemia and SARS COV 2 mild infection in 2021.Twenty days after her recovery, she was admitted for fever (39ºC), respiratory symptoms, migratory arthralgias and an evanescent maculopapular rash. The blood test revealed microcytic anemia, leukocytosis of 14,200/µL and neutrophilia 11.700/µL, rise of acute phase reactants (fibrinogen 888 mg/dL, ESR 61 mm/h, CRP 21.5 mg/dL, hyperferritinemia 700 mg/dl). Blood and urine cultures were sterile. SARS-CoV-2 PCR initially positive with low viral replication and negative in subsequent determinations. A huge variety of infectious etiologies were ruled out. ANA, anti-DNA, ANCAs, RF and anti-citrullinated peptide were negative. Biopsy of the rash probed a lymphocytic inflammatory infiltrate. Neither the transthoracic echocardiogram nor the CT-body scan showed any abnormalities. We started corticosteroids 0.5 mg/kg/day, with disappearance of rash and fever in 48 hours. After 20 days of stability, we decrease the dose and fever and rash repapered in 72 hours, correlating with hyperferritinemia of 18,000 mg/dl, IL-6 16.6 pg/ml, IL-10 40 pg/ml and elevation of acute phase parameters. Leucocytes were normal, platelet account went down to 130,000/mL and liver enzymes were augmented.

Clinical Hypothesis: We considered macrophage activation syndrome secondary to Adult Onset Still Disease (AOSD).

Diagnostic Pathways: CD25 and NK levels and the immunophenotypic and genetic studies revealed no alteration so we ruled out this condition.

Discussion and Learning Points: We finally established the diagnosis of AOSD by the Yamaguchi criteria, probably triggered by COVID-19 infection, with a second flare due to the rapid decrease in the corticosteroids dose.

482 / #EV1163

HEADACHE WITH ALARM SIGNS IN A PATIENT TAKING ORAL CONTRACEPTIVES AS A STARTING POINT OF A DIAGNOSTIC CHALLENGE.

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Case Description: 28-year-old patient, originally from Honduras. No toxic habits or cardiovascular risk factors.A full-term pregnancy at 17 years,without complications. Right optic neuropathy in 2015, and chronic headache without study. She was being treated with oral contraceptives (OAC). She consulted the emergency room due to an increase the intensity of her usual headache, accompanied by nausea and vomiting. She reported occasional blurred vision in her left eye, febrile sensation and appearance of acneiform lesions on the face and trunk. A brain CT was performed describing SOL in the left cerebellar hemisphere, deciding to be admitted to Neurology. A brain MRI revealing acute dural venous sinus thrombosis (CVST). Autoimmunity, serology and thrombophilia study were started, and anticoagulation was prescribed with good clinical evolution. In the consultations, the patient referred recurrent painful orogenital ulcers at least once a month with arthritis of the fingers, sporadic fever, and aseptic acneiform-type pustular skin lesions. Autoimmunity study; HLA b27, b51, b57; autoinflammatory and hypercoagulability, all negative.

Clinical Hypothesis: The episode of CVST,with previous ocular involvement (optic neuritis) plus systemic involvement, makes us propose a differential diagnosis of: Behcet's disease, sarcoidosis, Cogan's syndrome, SLE, Sweet's syndrome, lymphoma, Vogt-Koyanagi-Harada, syphilis, and other autoinflammatory diseases.

Diagnostic Pathways: Criteria for Behcet disease are met (recurrent orogenital ulcers, optic neuritis, folliculitic skin lesions,polyarthralgia and CVST), leading to the diagnosis of Behcet's disease.

Discussion and Learning Points: CVST is a disease with potentially serious consequences and that usually affects young people. Headache is the most common symptom and is more frequent in patients taking OAC,being in turn an infrequent manifestation of Neurobehcet.The early diagnosis of Neurobehcet is very important to start an adequate treatment,thus modulating the course of the disease and preventing complications.

 DOI: 10.12890/2022_V9Sup1

2059 / #EV1164

DIFFUSE ALVEOLAR HEMORRHAGE (DAH): AN UNUSUAL PRESENTATION OF ANTI–GLOMERULAR BASEMENT MEMBRANE DISEASE

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Case Description: A 68-year-old male was admitted to the cardiology department for ST-segment elevation myocardial infarction. He had hemoptysis that was related to antithrombotic systemic therapy. Two months later, the patient developed cough with hemoptoic sputum and he had a fever without chills. Cultures of the sputum, urine and blood were obtained and empirical treatment with levofloxacin was started. The oxygen saturation was 90% while he was receiving high flow oxygen through a face mask, he had low blood pressure and diffuse crackles in both lungs.
Clinical Hypothesis: Pneumonia vs diffuse alveolar hemorrhage.
Diagnostic Pathways: Chest radiograph showed bilateral and symmetric patchy consolidations. Routine blood analysis revealed anemia and an increased serum concentrations of acute phase reactants such as erythrocyte sedimentation rate and C-reactive protein. Examination of the urinary sediment was normal, without proteinuria or hematuria. The cultures were negatives. Computed tomography of the chest showed bilateral alveolar infiltrates and extensive ground glass opacities. The anti-glomerular basement membrane antibodies were positive.
Discussion and Learning Points: The disease produced by anti-GBM-Ab is an unusual, severe and a prototype autoimmune disease. A high index of suspicion is required to diagnose anti-GBM disease. The clinical syndrome is characterized by hemoptysis, anemia, diffuse radiographic pulmonary infiltrates, rapid decline in kidney function and hematuria. Early diagnosis and immediate initiation of treatment are essential for improving the prognosis. We present a rare isolate lung affection due to anti–glomerular basement membrane disease, entity that usually affects simultaneously lungs and kidneys. Unfortunately, the patient died despite receiving high doses of intravenous corticosteroids and the performance of a plasmapheresis.

2606 / #EV1165

CLINIC TAKES THE FLOOR

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Case Description: A 30-year-old woman with no medical history, came to the emergency department for four days of general malaise, chest discomfort, arthromyalgia, dry cough, and dyspnea. No fever or other infectious semiology. On examination, regular general condition, conscious, oriented. Tachypneic and tachycardia (110 bpm). Auscultation: tachyrrhythmic tones without murmurs. Bibasilar crackles. Rest of exploration unremarkable. Blood analysis: normocytic-normochromic anemia, leukopenia at the expense of neutrophils, LDH 422 U/L (120 - 246), AST 204 U/L (13-40), ALT 41 U/L (7-40) and CRP 273.1 mg /L (<5.0). Chest X-ray: patchy alveolar infiltrates in lower lobes CT angiography of pulmonary arteries: highly suggestive of SARS-CoV-2 pneumonia.
Clinical Hypothesis: Initially, we suspected bilateral SARS-CoV-2 pneumonia. Later, given data compatible with immune-mediated disease, we proposed other possibilities such as lupus pneumonitis, pulmonary hemorrhage, and organizing pneumonia.
Diagnostic Pathways: Given the main hypothesis, we performed a SARS-CoV-2 PCR test, resulting in a negative. The autoimmunity study [positive for ANA (+) > 1/320; antiSS-A >240] completes criteria for systemic lupus erythematosus. Normal study of infectious pathology and bronchoalveolar lavage. In High Resolution CT: signs of COVID-19 pneumonia with reparative changes, post-drug treatment pneumonitis or lupus pneumonitis.
Discussion and Learning Points: Lupus pneumonitis is an entity that can have a fulminant evolution. Sometimes, it associates the debut of systemic lupus erythematosus, implying greater diagnostic and therapeutic difficulty. On the other hand, it is an exclusion diagnosis. Clinical suspicion should prevail in this process and bear in mind that radiologically it is very similar to SARS-CoV-2 infection.

1301 / #EV1166

DIPLOPIA AND DIABETES MELLITUS TYPE 1? LEADS TO A FASCINATING DISCOVERY...

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Case Description: A 32-year-old woman with DM1 was admitted in Internal Medicine due to binocular, vertical, subacute diplopia. Complementary tests showed normal chest x-rays, electrocardiogram and laboratory findings. After thoughtful exploration, left IV cranial nerve palsy was identified. Subsequent clinical worsening with palpebral ptosis resulted in realización of electromyographical studies, showing a 40% decrease in right facial nerve's action potentials' amplitude after repetitive stimulation at low frequency. This finding, together with adequate clinical response to physostigmine treatment, led to diagnosis of myasthenia gravis. The pathology was finally identified as double seronegative myasthenia gravis without associated thymic pathology. Extension studies identified vermic atrophy and non-functioning pituitary macroadenoma on brain-MRI, anti-glutamic acid decarboxylase antibodies (possible concomitant autoimmune anti-GAD 65 neuropathy) and anti-thyroperoxidase antibodies with normal thyroid hormonal profile.
Clinical Hypothesis: Combination of myasthenia gravis, anti-GAD65 autoimmune neuropathy, pituitary macroadenoma

 DOI: 10.12890/2022_V9Sup1

and latent thyroid autoimmunity, together with previous type 1 diabetes mellitus, resulted in the identification of type IIIC Autoimmune Polyglandular Syndrome.
Diagnostic Pathways: Patients with DM1 and neurological findings should be tested for other autoimmune disorders, including full thyroid anti GAD 65 autoimmunity. Specific imaging tests such as MRI should also be considered.
Discussion and Learning Points: Autoimmune neuropathies with anti-GAD65 antibodies neutralize GABA, blocking glutamic acid decarboxylation. Clinical manifestations include rigid-akinetic syndromes, encephalitis with myoclonus, epilepsy, and cerebellar ataxia. Associations with paraneoplastic symptoms or autoimmune polyglandular syndromes are described. Type IIIC Autoimmune Polyglandular Syndrome is a rare and underdiagnosed entity combining thyroid and diabetic pathology with neurological autoimmunity, without ectodermic distrofia. More common in women, it is probably transmitted through autosomal dominant inheritance.

2724 / #EV1167

AUTOIMMUNE DISEASE IN OLD AGE

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Case Description: Female 80 years old hypertensive and aortic stenosis treated surgically. The patient presents with asthenia and weight loss, with one year of evolution. And disorientation, slowness, and prostration with one week of evolution.
Clinical Hypothesis: Neoplasm Paraneoplastic syndrome Autoimmune disease.
Diagnostic Pathways: Analytical study: - Pancytopenia: anemia, leukopenia, neutropenia, and thrombocytopenia. - autoimmune hemolysis - Cytolysis and hyperbilirubinemia - Coagulopathy - ANA >1/1000 homogeneous and centromeric, complement consumption; positivity for anti-dsDNA antibody (324.7UI/mL), ANCA MPO, anti-SSA Ro52 antibody, anti-smooth muscle antibody, anti-HAI - SLA/LP antibody, and anti-centromere antibody. The remaining autoimmune study was negative. - Broad-based peak electrophoresis of serum proteins - IgG hypergammaglobulinemia - Immunofixation and immunophenotyping of peripheral blood without changes suggestive of multiple myeloma - Urine immunofixation without free light chains - High integral kappa and lambda chains, with high ratio; High free light kappa and lambda chains, with a high ratio - Negative serologies and microbiology. Imaging findings included splenomegaly and cirrhosis of the liver. No evidence of neoplastic disease or stroke. Bone marrow aspirate and biopsy without changes compatible with multiple myeloma or another lymphoproliferative disease.
Discussion and Learning Points: Presumed diagnosis of systemic lupus erythematosus with hematological involvement and probably autoimmune liver cirrhosis. The hypotheses of solid neoplasm, stroke, and infectious conditions were excluded. Treatment with corticotherapy and hydroxychloroquine was started, with a favorable response, later with azathioprine. However, taking into account the age, the picture described and the positivity of a great variety of antibodies, the hypothesis of Paraneoplastic Syndrome as a presentation of the lymphoproliferative disease remains standing.

2701 / #EV1168

POLYMYOSITIS - RELAPSE DURING MAINTENANCE TREATMENT

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Case Description: A 77-year-old female with inflammatory myopathy with bulbar and limb involvement and probable overlap with scleroderma. Diagnosed 5 years ago, without evidence of neoplasia, with a favorable response to corticotherapy and azathioprine. The patient presents with dysphagia for liquids, weight loss, anorexia, and proximal weakness of the upper limbs. Objectively with microstomia, puffy fingers, and possible cutaneous thickening. Associated with limited upper limb abduction.
Clinical Hypothesis: The flare of polymyositis with scleroderma Paraneoplastic syndrome.
Diagnostic Pathways: Analytical study with evidence of rhabdomyolysis. Videofluoroscopy showing dyskinesia/acnesia of the pharyngeal muscles. The endoscopic study, Positron Emission Tomography and Computed Axial Tomography (CT) of the thoracoabdominopelvic with no evidence of neoplasia. But CT scan showed possible lung involvement (non-specific interstitial pneumonia or cryptogenic organizing pneumonia).
Discussion and Learning Points: Polymyositis is a rare disease and its diagnosis is often a challenge. When it is suspected, other associated entities should always be excluded, namely neoplasms. The main feature is muscle weakness, which may affect several organs. Dysphagia is one of the most frequently reported gastrointestinal symptoms and is more common in older patients. In the light of the clinical picture and the study carried out, assumed a flare of polymyositis with scleroderma with significant organ involvement. Without evidence of neoplasia. Given its severity, immunomodulatory therapy with immunoglobulin, mycophenolate mofetil, and corticotherapy was performed. The patient responded well to treatment and her clinical condition improved. This case shows how the ideal treatment scheme is difficult as it is an unknown area. Therefore, close monitoring and careful decisions are required.

 DOI: 10.12890/2022_V9Sup1

2711 / #EV1169

SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) WITH PERSISTENT IMMUNE ACTIVITY

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Case Description: Female, 44 years old, diagnosis of Systemic Lupus Erythematosus (SLE) with hematological and articular involvement, and secondary antiphospholipid antibody syndrome (APS). SLE treated with corticoid and Belimumab, with a good initial response. Attempted corticosteroid-sparing and Belimumab spacing, but joint flare appeared. Since the start of diagnosis, the patient has maintained leukopenia and immunological activity.
Clinical Hypothesis: SLE refractory to treatment Non-responsive SLE.
Diagnostic Pathways: Analytical study with leukopenia and neutropenia; persistently high anti-dsDNA antibody (~800UI/mL); positive anticardiolipin antibody and Beta2 glycoprotein; positive lupus inhibitor and Coombs positive.
Discussion and Learning Points: Systemic lupus erythematosus (SLE) is a chronic autoimmune disease of unknown cause that can affect virtually any organ of the body. The anti-dsDNA antibody is highly specific for the diagnosis of SLE and is used as a marker of disease activity. Usually, after appropriate treatment, their levels fall, accompanying the clinical improvement. In the present case, this pattern did not occur, highlighting the possible variability between patients.

647 / #EV1170

INCREASED LEVELS OF ICOS AND ICOSL ARE ASSOCIATED TO PULMONARY ARTERIAL HYPERTENSION IN PATIENTS AFFECTED BY CONNECTIVE TISSUE DISEASES.

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Background and Aims: Pulmonary hypertension (PH) is a common complication of advanced connective tissue diseases (CTD). Preventing PH justifies the search for new biomarkers predicting its onset. Our cross-sectional study aimed to investigate the potential role of the inducible co-stimulator (ICOS) and its ligand (ICOS-L) in the identification of PH in patients with CTD.
Methods: We recruited 109 patients: 97 with CTD, of which 13 aggravated by PH (CTD + PH), and 12 with PH alone. All the patients underwent clinical-laboratory analysis, trans-thoracic echocardiography and quantitative evaluation of ICOS and ICOS-L serum values by ELISA assay.
Results: Statistically, there was an association between PH, regardless of its underlying cause, and ICOS and ICOS-L concentrations, that were significantly higher in patients with PH than in patients with CTD alone (p=0.0001); indeed, compared to patients with CTD alone, the CTD-PAH sample showed higher serum levels of both ICOS (440 [240-600] vs. 170 [105 - 275] pg/ml, p=0.0001) and the ligand (6000 [4300 - 7000] vs. 2450 [1500 - 4100] pg / ml; p = 0.0001) regardless of age and renal function. Finally, we highlighted how both molecules have a good diagnostic capacity, as demonstrated by the respective ROC curves.
Conclusions: Our study highlights that ICOS and ICOS-L are significantly increased in PH patients, suggesting their potential use in PH screening in CTD patients.

400 / #EV1171

GIANT CELL ARTERITIS, STROKE AND INCIDENT SEIZURES: A MEDIATION ANALYSIS

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Background and Aims: Giant cell arteritis (GCA) is an inflammatory autoimmune disease of large blood vessels mainly affecting head and neck arteries. Stroke is one of the major complications of GCA. Our objective was to investigate the association between GCA and subsequent seizures and to assess the mediating role of stroke in this association.
Methods: In this matched cohort study, we included all patients from the Clalit Health Services chronic disease registry diagnosed by a physician with GCA as documented on their medical records between 2002 and 2017. A control cohort was matched in a 4:1 ratio. Cox regressions were used to determine the hazard ratio between GCA and seizures.
Results: Among 8,103 GCA patients diagnosed during the study period, 5,535 women (68%), 2,644 patients born in Israel (33%), and 2,888 patients with low socioeconomic status (36%), with a median age of 71 (IQR 61 to 79). GCA was associated with seizures in the unadjusted (HR=1.75, 95%CI [1.36 to 2.25]) and adjusted (HR=1.75, 95%CI [1.36 to 2.26]) models. The association persisted in men (HR=2.11, 95%CI [1.36 to 3.29]) and women (HR=1.61, 95%CI [1.18 to 2.19]). In the mediation analysis, GCA was associated with seizures after controlling for stroke (HR=1.59, 95%CI [1.19 to 2.12]).
Conclusions: The results of our study support an association between GCA and subsequent seizures that is only partially mediated by the increased rate of stroke in this population.

 DOI: 10.12890/2022_V9Sup1

2273 / #EV1172

MICROSCOPIC POLYANGIITIS WITH RENAL INVOLVEMENT AND POLYNEUROPATY

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Case Description: A 74-year-old female patient with a no significant medical history was admitted due months of intermittent nocturnal fever, weight loss, muscle weakness and paresthesia in her hands and feet. She had proximal muscle weakness in her extremities which was more prominent on to the left side. A PET scan revealed no significant findings. Next electrophysiological conducting tests showed findings consistent with acute/subacute axonal sensorimotor polyneuropathy affecting all the extremities. The severity of which being moderate in the upper extremities and severe in the lower extremities. During her hospitalization she rapidly progressive glomerulonephritis (RPGN) and acute renal failure. Treatment was started with diuretics, corticosteroids and immunoglobulins. MPO ANCA antibodies and anti-basal membrane antibodies were positive. A renal biopsy was done revealing cellular crescents consistent with RPGN. High dose intravenous corticosteroid pulses were administered, and rituximab was added on to the treatment. The patient had an optimal clinical and analytical response to the treatment with improvement of strength in the extremities and improvement of her renal function.
Clinical Hypothesis: Microscopic polyangiitis (MPA) with renal involvement and axonal sensorimotor polyneuropathy.
Diagnostic Pathways: Positive MPO ANCA antibodies led to a renal biopsy.
Discussion and Learning Points: MPA with renal and/or pulmonary involvement is associated with neuropathy in 11 to 52.5 of cases. In rare cases the neurological involvement can be the first manifestation of MPA. It usually presents in the form of multiple neuritis however in this case our patient had an axonal sensorimotor polyneuropathy as described which is a very rare finding with very few publications in current medical literature.

499 / #EV1173

CHRONIC LOW BACK PAIN AND OCULAR INVOLVEMENT. THE IMPORTANCE OF AN EXHAUSTIVE ANAMNESIS.

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Case Description: 46-year-old patient,with recurrent episodes of anterior uveitis,vitreous detachment in the left eye and peripheral retinal tear in both eyes. Diagnosed in a private center of psoriatic arthritis. Father with psoriasis and rheumatoid arthritis. He reports episodes of recurrent uveitis and generalized arthralgias (constant low back pain that does not change with rest or mobilization), headache and episodes of inflammation of the fingers without morning stiffness. Investigating the patient's anamnesis,he reported long-standing orogenital ulcers,hypoesthesia and decreased force in the lower limbs. Physical examination revealed no skin lesions or signs of arthritis, negative sacroiliac maneuver, normal cranial nerves, no bulbar symptoms, no motor alterations or proprioceptive sensitivity. The following complementary tests were requested: serology, rheumatoid factor, anti-citrullinated cyclic peptide, antinuclear and antiphospholipid antibodies, HLAB27, all negative. Lumbosacral MRI with spondylo-discoarthrosic changes and normal sacroiliacs. Brain MRI: hyperintense lesions in T2 at the left hemiprotuberancial level and in the right hemiprotuberance. Multiple hyperintense lesions in the periventricular white matter.
Clinical Hypothesis: Differential diagnosis of the disease is made with Multiple Sclerosis(MS) and parenchymal form of Behcet's Disease.
Diagnostic Pathways: The patient meets criteria for Behçet Syndrome (recurrent oral ulcers, polyarthralgia with some episode of arthritis, bilateral recurrent uveitis, neurological involvement and the absence of time criterion for MS).
Discussion and Learning Points: Behçet's disease is a multisystemic vasculitis with neurological involvement in 5-10% of cases. The most common location is the pontobulbar region(40%), as presented in our case.This pattern of distribution of the lesions together with the systemic symptoms and the temporal criterion helps us to differentiate it from other vasculitis and other inflammatory-demyelinating diseases,such as MS,and to initiate appropriate treatment.

1134 / #EV1174

CROHN'S DISEASE ONSET NINETEEN YEARS AFTER THE DIAGNOSIS OF REFRACTORY COGAN SYNDROME: IS THERE A LINK OR JUST A FORTUITOUS ASSOCIATION?

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Case Description: We report a case of Cogan syndrome that precedes the diagnosis of inflammatory bowel disease. A 51-year-old patient was diagnosed with Cogan syndrome in 2001. She had ear, eye, aortic and joint involvement. Cogan's syndrome was corticosteroid-dependent and refractory to conventional treatments with methotrexate, azathioprine and mycophenolate mofetil as well as to biotherapy with infliximab and rituximab.
Clinical Hypothesis: The association between Cogan syndrome and Crohn's disease is reported in a limited number of subjects in two recent case series published in 2010 and 2015. Inflammatory

 DOI: 10.12890/2022_V9Sup1

bowel disease precedes Cogan syndrome in the majority of cases of these 2 case series. The authors could not conclude on a pure coincidence or a common pathophysiology allowing better management of these two pathologies.
Diagnostic Pathways: The patient underwent a right total nephrectomy in 2014 following the fortuitous discovery on CT angiography of the aorta of right kidney mass. Histological analysis confirmed the diagnosis of clear cell renal cell carcinoma. She subsequently underwent cochlear implantation. Cogan's syndrome remained active with recurrent episcleritis and polyarthritis despite combined treatment with rituximab and mycophenolate mofetil. The diagnosis of Crohn's disease was made in 2020, nineteen years after the onset of Cogan syndrome, following chronic diarrhea and deterioration of general condition. Treatment with adalimumab was initiated in 2021 with clinical remission of Crohn's disease and Cogan syndrome.
Discussion and Learning Points: We are discussing the multidisciplinary therapeutic approach and addressing the challenges in the management of this case: refractory Cogan syndrome plus Crohn's disease in a context of recent kidney cancer.

1460 / #EV1175

ANTIPHOSPHOLIPID SYNDROME: INFLUENCE OF THROMBOCYTOPENIA IN THE COURSE OF THE DISEASE

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Background and Aims: Antiphospholipid syndrome (APS) is an auto immune disorder that includes a wide range of thrombotic and obstetric manifestations, this disease is often associated to thrombocytopenia. The aim of our study is to describe disparities between APS patients with thrombocytopenia and those without.
Methods: A cross-sectional study including patients followed up from 2002 up to 2020, diagnosed with APS according to the 2006 Sydney international consensus criteria. Patients were divided in to a thrombocytopenia group and a non-thrombocytopenia group.
Results: 30 patients were included in this study with 10 of them having associated thrombocytopenia. The mean age was 39 years old with feminine predominance regardless of the presence of thrombocytopenia, sex ration was 2 in total. 8 thrombotic manifestations were observed in our thrombocytopenic patients whereas 14 were observed in our non-thrombocytopenic patients, mostly being cases of deep vein thrombosis, observed in 6 thrombocytopenic patients and 10 non thrombocytopenic patients. 7 Obstetric manifestations were noted thrombocytopenic patients and 20 in non thrombocytopenic patients being predominantly cases of recurrent miscarriages, 4 in the thrombocytopenia APS patients and 8 in non-thrombocytopenic patients. 7 thrombocytopenic patients had anticrdiolipine-antibody while 2 had anti-b2gp1-antibody and 3 had lupus-anticoagulant while in non-thrombocytopenic patients anticardiolipin-antibodies were psotive in 16 patients, antib2gp1 in 6 and lupus-anticoagulant in 5. Relapses occured in 2 thrombocytopenic patients and 8 non-thrombocytopenic patients.
Conclusions: Our Study showed no significant differences in clinical manifestations and outcome in patients with thrombocytopenia and those without, which was comparable with findings in our review of literature

2662 / #EV1176

USUAL STROKE, OR VASCULITIS?

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Case Description: We present a 78-year-old male with history of haemorrhage in basal ganglia with residual hemiparesis, moderate pulmonary insufficiency, bronchial asthma, and sinonasal polyposis. Admitted one month before in Neurology for right motor lacunar syndrome. Attended by sudden dyspnoea in decubitus, without any other clinic. Mild tachypnoea but hemodynamically stable, requiring oxygen with nasal cannula at 2L. On pulmonary auscultation generalized wheezing, with no other alterations on physical exam. Analytically, leukocytosis with eosinophilia of 7.3 103/L stands out, without any other alterations. The chest X-ray didn't show significant pleuroparenchymal alterations.
Clinical Hypothesis: Due to the clinical presentation together with the personal history, we made a differential diagnosis including vasculitis, hypereosinophilic syndrome, drug reactions, fungal and parasitic infections, and malignancy.
Diagnostic Pathways: It highlighted positivity for p-ANCA 1/20, with anti-myeloperoxidase Abs >134,000 IU/mL, total IgE 2917.0 KU/L. Rest of autoimmunity, negative. Albumin in 24 hours 1033 mg/24h Parasitic, fungal and luetic infection was ruled out. Body-CT with no relevant findings. Brain MRI identified multiple acute-subacute lacunar ischemic lesions in several anterior circulation territories. He was diagnosed with generalized antimyeloperoxidase vasculitis, with otorhinolaryngological, pulmonary and renal involvement, not being able to rule out brain involvement. Boluses of 250 mg methylprednisolone were administered, with tapping of 30 mg prednisone and induction with cyclophosphamide, with good response.
Discussion and Learning Points: Eosinophilic granulomatosis with polyangiitis (EGPA), is a systemic necrotizing vasculitis characterized by pulmonary involvement, severe asthma, and blood and tissue hypereosinophilia. It is associated with p-ANCA antimyeloperoxidase in 35% to 40% of cases. The prognosis of EGPA has been disrupted by corticosteroid and immunosuppressive treatment.

 DOI: 10.12890/2022_V9Sup1

193 / #EV1180

THROMBOTIC THROMBOCYTOPENIA PURPURA - HOW TO PREVENT RELAPSE?

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Case Description: A 34 year-old woman with prior history of thrombotic thrombocytopenic purpura (TTP) treated with plasmapheresis (PFX), corticosteroids and rituximab (RTX) three years before presented to the emergency department with a transient ischemic attack (TIA) and petechias in the lower limbs. Cerebral scan showed no acute images and she had anemia (hemoglobin 9.9 g/dL) with indirect signs of hemolysis, schistocytes, and severe thrombocytopenia (15,000 platelets/uL). She had been pregnant and delivered 6 months before and was discharged with 90.000 platelets/uL with no subsequent evaluation.
Clinical Hypothesis: Given the prior history and a PLASMIC score of 7, a possible relapse of TTP was considered.
Diagnostic Pathways: She was preemptively started on PFC, methylprednisolone pulses and RTX with good response. Blood was sampled to determine ADAMTS13 activity before treatment - it was indetectable and a positive inhibitor was present, confirming TTP relapse. These measurements were repeated 48 hours after suspending PFX - ADAMTS13 activity was 38% and the inhibitor was below the normal range. The TIA was studied with ECG, echocardiogram, cervical and transcranian doppler ultrasound and viral serologies - all of which were normal - and the event was assumed in relation to the thrombotic microangiopathy.
Discussion and Learning Points:Evidence states that using of RTX ad initium reduces TTP relapse, but this protective effect has a limited duration - about 3 years. Pregnancy is a known trigger of TTP due a physiological lowering of ADAMTS13, mostly in the postpartum. Our case highlights the possible relevance of periodic dosing of ADAMTS13 activity and prophylactic administration of RTX when it is <20%.

330 / #EV1181

A RARE CAUSE OF ABDOMINAL PAIN

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Case Description: A 54-year-old woman with two previous episodes of deep vein thrombosis of the lower extremities and hypertension presented to the emergency room because of a stabbing abdominal pain predominantly in the left quadrants with one week duration. She also had nausea, anorexia, fatigue, and weight loss for some months. Laboratory tests showed mild normocytic anaemia (11.1 g/dL) and a C-reactive protein of 6.94 mg/dL. An abdominopelvic computed tomography (CT-scan) was ordered showing an enhancing peri-aortic densification with supra and infrarenal extension suggesting the presence of retroperitoneal fibrosis/lymphoproliferative disorder. She was admitted for additional investigation. During hospitalization, she kept having abdominal pain but did not develop other symptoms, namely fever.
Clinical Hypothesis: IgG4-related disease or lymphoproliferative disorder.
Diagnostic Pathways: Most relevant laboratory findings were an erythrocyte sedimentation rate of 77 mm/h, anaemia of chronic disease and the elevation of serum immunoglobulin G (IgG), IgG1 and IgG4 concentrations (2230/1480/430 mg/dL, respectively). A cervical/thoracic CT scan was ordered to exclude other organ involvement whose result was normal. A CT scan-guided biopsy of the peri-aortic densification was carried out. The histopathological analysis showed exuberant lymphoplasmocytic chronic inflammatory infiltrate with multiple IgG4+ plasmocytes as well as storiform pattern fibrosis but no obliterative phlebitis. The findings were consistent with IgG4-related fibrosis.
Discussion and Learning Points: The diagnosis of IgG4-related disease is based on the combination of typical histopathologic, clinical, serologic, and radiologic findings. Differential diagnosis includes infectious and non-infectious diseases. Lymphoma should be excluded. Histopathologic findings are the most useful for differentiating IgG4-RD from other diseases causing aortitis/retroperitoneal fibrosis.

1070 / #EV1182

THE NEEDLE IN THE HAY STACK: AN UNUSUAL CASE OF LUNG FIBROSIS AMIDST THE COVID-19 ERA

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Case Description: The authors describe the case of a 67 year-old male, with history of arterial hypertension, joint pain interpreted as gout and a recent mild case of SARS-CoV-2 infection, admitted to the emergency services due to periorbitary edema and swelling of the lower limbs and hands for the last 1.5 months. Physical exam had pulmonary auscultation with bilateral fine crackles, and edema of the face, hands and limbs. Blood gases with hypoxemia. Chest tomography with ground glass diffuse densifications, more evident in the basis of both lungs.
Clinical Hypothesis: In the differential diagnosis were considered sequelae of COVID-19 vs interstitial pneumonia. However a more detailed history revealed diffuse skin thickening, puffy fingers, biphasic Raynaud's phenomenon and facial telangiectasiae.
Diagnostic Pathways: The study showed ANA 1:1280, p-ANCA pattern and anti-Scl70 antibodies >786.3. Hence, the patient was diagnosed with systemic sclerosis (SSc) associated interstitial

 DOI: 10.12890/2022_V9Sup1

lung disease. Heart ultrasound without pulmonary hypertension. Currently with long term ambulatory oxygen, with follow up in auto-immune specialized outpatient appointments.
Discussion and Learning Points: Although SSc is a rare disease, it leads to a disproportional morbidity and mortality. In the European Scleroderma Trials and Research database, pulmonary fibrosis accounted for 35% of disease specific mortality. This case portraits the importance of considering these unusual diagnosis, as it illustrates the morbidity these patients incur due to delayed diagnosis, within the framework of non-specific initial symptoms.

2306 / #EV1183

WEGENER'S GRANULOMATOSIS WITH HYPEREOSINOPHILIA AND HYPERIMMUNOGLOBULINEMIA E

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Case Description: A 71-year-old male was admitted for a progressive pruritic erythroderma, arthritis of large joints, hoarseness, dyspnea, fatigue, and weight loss. In addition, he had a 10-year history of Hypereosinophilic of Undetermined Significance. There was no history of fever, sinusitis, asthma or atopy. His laboratory results showed 21.6 x 10^3 white blood cells (WBCs) and a total count of 12.6 x 10^3 U/L eosinophils. C-protein reactive was 52.57 mg/l. Liver and renal functions was normal, and urinary sediment didn't show major alterations. The X-ray examination of her chest, knees and ankles were unremarkable.
Clinical Hypothesis: Hypereosinophilic Syndrome. Autoimmunity and screening for parasite infection was conducted
Diagnostic Pathways: Immunoserology revealed positive c-ANCA and anti-PR3 was 31.4 U/L. IgE level was elevated (> 5000 kU/L). Stool microscopy identified rares Strongyloides stercoralis eggs. CT scan exhibited multiple granulomas at left and right lung apex. Laryngoscope was performed and showed left cord palsy, and cutaneous biopsy was compatible with angiocentric dermatitis surrounded tissue hypereosinophilia. Deworming was complete and wasn´t associated with clinical or laboratory improvement. Due to the suspicion of Wegner granulomatosis (WG), the patient started prednisolonet at 1 mg/kg/day, with rapid normalization of eosinophilia, as well as an improvement in clinical symptoms.
Discussion and Learning Points: Granulomatosis with polyangiitis (GPA), also known as WG, is a systemic vasculitis which may be associated with mild eosinophilia, however, significant eosinophilia is rare. In this circumstance, can be challenging distinguishing WG from Churg-Strauss syndrome (CSS). We consider this case closer to a eosinophilic variant of WG, with peripheral blood and the tissue eosinophilia, than CSS.

733 / #EV1184

GERIATRIC DELIRIUM AND POLYMYALGIA RHEUMATICA - IS THERE A RELATIONSHIP?

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Case Description: Delirium is a common mental disorder encountered in patients with medical illness, particularly the elderly. Sometimes it is the only sign of an underlying medical condition, which can be difficult to recognize. We report the case of a 77-year-old woman with rheumatoid arthritis (RA) who was admitted to emergency department because of sudden chest pain. An acute myocardial infarction was diagnosed and treated accordingly. During her hospital stay she developed a difficult-to-control hyperactive delirium and a persistent systemic inflammatory syndrome (ESR over 70 mm/h and CRP 120 mg/L with normochromic and normocytic anemia).
Clinical Hypothesis: An exhaustive study excluded an RA flare, an infectious etiology or a possible Dressler's syndrome.
Diagnostic Pathways: Concurrently, since admission, a progressive loss of autonomy was documented, with loss of muscle strength at pelvic and shoulder girdles' level, so the hypothesis of polymyalgia rheumatica (PMR) was raised. After beginning prednisolone 20 mg id, there was a quick recovery of delirium and a gradual gain in patient's autonomy. Evaluation one month after discharge revealed complete resolution of delirium with a functional state similar to that prior to the acute context and a marked reduction in inflammatory parameters. We did not identify any signs or symptoms of giant cell arteritis.
Discussion and Learning Points: It is known that patients with rheumatic diseases are more likely to develop neuropsychiatric disorder. PMR is a common inflammatory rheumatic condition with a peak incidence at 7th decade. In this case delirium anticipated its classic presentation. To our knowledge, this is the first report of a possible association between delirium and PMR.

1405 / #EV1185

SNEDDON SYNDROME – ABOUT A CLINICAL CASE

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Case Description: We present a 52-year-old woman, without significant previous medical history, presenting at the emergency department with an acute confusional state. On admission, psychomotor lentification and emotional lability were noticed.
Clinical Hypothesis: Sneddon Syndrome (SS) is a rare entity characterized by the combination of livedo racemosa with recurrent strokes. Its etiology remains unknown, although autoimmunity is a known contributor in most cases, particularly through vascular thrombotic phenomena in small and medium vessels. SS may be idiopathic or secondary to autoimmune

 DOI: 10.12890/2022_V9Sup1

diseases such as antiphospholipid syndrome (APS) and systemic lupus erythematous (SLE). Diagnosis is made on a clinical basis, through combination of cutaneous and neurological features. Treatment involves antithrombotic therapy as well as treatment of the autoimmune disease when present. The prognosis depends on the severity of neurologic manifestations.
Diagnostic Pathways: Brain computed tomography revealed anterior striato-capsular infarction with bilateral frontoparietal and parietal cortico-subcortical infarctions. There was documented positivity for lupus anticoagulant (1.29 with ULN 1.2) and for antinuclear antibodies (1:320 in a nuclear large/coarse speckled pattern). Twelve weeks later, there was a persistent elevation of lupus anticoagulant (1.24 units). Later, livedo racemosa dispersed between the trunk and limbs was documented. The diagnosis of SS secondary to APS was assumed and anticoagulation with varfarin was initiated.
Discussion and Learning Points: Documentation of livedo racemose is an important feature for the identification of SS, which constitutes a less frequent etiology of stroke in younger ages. This diagnosis is important to determine therapeutic options, such as anticoagulation.

1835 / #EV1186

IMMUNOGLOBULIN A VASCULITIS - A SPECTRUM OF DISEASE

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Case Description: Immunoglobulin A (IgA) vasculitis (Henoch-Schönlein purpura), is an immune complex-mediated vasculitis affecting small vessels with IgA deposits. This condition is common in childhood but rare in adults, with a more severe course. We report three cases that illustrate different presentation and clinical course. A 55 year-old woman with complaints of acute abdominal pain, bloody stools and confluent purpuric lesions on the legs. No other symptoms. Colonoscopy showed reddish macules and a swollen mucosa, and biopsies nonspecific inflammatory changes. Laboratory studies revealed elevated IgA levels, no other changes. Steroids were started, with resolution of the gastrointestinal symptoms but relapsing purpura. Azathioprine was added, with resolution of all complaints. A mid-forties man who presented with arthritis and purplish rash on the lower legs. Blood count and biochemistry were normal. Urinalysis revealed nephrotic proteinuria and hematuria. IgA level was high, ANA and ANCA were negative. Renal biopsy was performed and revealed crescentic glomerulonephritis. He went on steroids and cyclophosphamide with improvement. A 27 year-old man with intermittent lower limb purpura, blood tests with high IgA serum level, no other autoimmunity study changes, normal renal function and mild proteinuria (24-hour urine protein test <500mg). Cutaneous biopsy revealed leukocytoclastic vasculitis. The patient remains under surveillance with an inhibitor of angiotensin converting enzyme.
Clinical Hypothesis: IgA vasculitis.
Diagnostic Pathways: IgA serum level.
Discussion and Learning Points: These cases are an example that IgA vasculitis can appear in adults, and we need to think of it to make a quick diagnosis. Treatment is often symptomatic, although sometimes it causes target organ damage needing specific therapy.

2039 / #EV1187

WHEN IMMUNOSUPPRESSION ISN'T ENOUGH

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Case Description: A 60-year-old female, with complete metabolic syndrome, chronic renal disease (G3aA2) and history of deep vein thrombosis, was admitted to Vascular Surgery for amputation of the gangrenous left fifth toe. The preoperative study revealed aortic toracoabdominal thrombosis, splenic infarction and embolization of left peroneal artery. During hospital stay, she developed daily fever and bilateral pulmonary infiltrates, under imipenem and vancomycin, in association to increased inflammatory parameters and pancytopenia. Hence, Internal Medicine collaboration was asked.
Clinical Hypothesis: The arterial and venous thrombosis can be explained by antiphospholipid syndrome (APS), inherited and acquired thrombophilias, paroxysmal nocturnal hemoglobinuria, heparin–induced thrombocytopenia and neoplasia, such as myeloproliferative ones. Moreover, lower respiratory infection has to be ruled out. Though, the development of an interstitial pulmonary disease should be taken in consideration.
Diagnostic Pathways: The immunologic study was consistent with APS (triple positive). This caused an arterial thrombotic event, with distal embolization and microangiopathic component (livedo racemosa), as well as systemic inflammatory syndrome with complement consumption. Heparin-induced thrombocytopenia was also presented. In addiction, a diffuse pulmonary haemorrhage was suspected (and posteriorly confirmed). Methylprednisolone pulses and intravenous immunoglobulin improved pulmonary infiltrates. However, fever sustained, with progression of gangrene till the third toe. Consequently, amputation and antibiotic were needed for the resolution of APS flare.
Discussion and Learning Points: The APS can progress to a severe form, with significant morbi-mortality. Therefore, its timely identification and multimodal treatment, directed not only to the thrombotic event, but also to the other complications, such as the infectious ones, are crucial to guarantee the acute control of the disease.

 DOI: 10.12890/2022_V9Sup1

1851 / #EV1188

WHEN MEN ARE NOT THAT PREDICTABLE

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Case Description: A 53-year-old man with hypercholesterolemia, obesity, alcohol, and tobacco use went to the emergency department with left-sided weakness and imbalance for the previous 20 hours. He presented mild drift of left limbs. Initial cranial computed tomography (CT) scan showed no evidence of acute ischemic or hemorrhagic lesions. It was considered a minor ischemic stroke and a combination of clopidogrel and acetylsalicylic acid was started.

Clinical Hypothesis: Stroke, cardiac embolism, coagulation abnormalities, autoimmune disease, vasculitis.

Diagnostic Pathways: After 48 hours of admission, cranial CT scan reevaluation did not show significant lesions. Transcranial doppler, carotid/vertebral duplex ultrasound, and echocardiogram were normal. Investigations also excluded causes of hypercoagulability and infections. After 3 days the symptoms were resolved and cranial magnetic resonance revealed infarction in the right hemi-protuberance. Lupus anticoagulant and anticardiolipin antibodies were positive on two occasions 14 weeks apart, which confirmed the diagnosis of primary antiphospholipid syndrome (APS). The patient started therapy with warfarin and statin and remained asymptomatic.

Discussion and Learning Points: APS is characterized by venous or arterial thrombosis in the presence of persistent laboratory evidence of antiphospholipid antibodies. It is more common among females, however, arterial thrombosis as clinical presentation has the same incidence in both genders. The diagnosis of this condition can be delayed in older patients and in the presence of other risk factors for thrombotic events, but at least 13% of APS patients are reported to be above the age of 50 years. Prevention and treatment of thrombotic events are dependent mainly on the use of vitamin K antagonists that should be started promptly.

2563 / #EV1189

HENOCH-SCHOLEIN PURPURA AND CROHN'S DISEASE: A CONTROVERSIAL RELATIONSHIP.

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Case Description: We describe a 20-year-old Italian man with epigastralgia, ankle pain, lower limb palpable purpuric rash and subsequent appearance of painful swelling of the hands and feet with fever.

Clinical Hypothesis: Crohn's disease (CD) is a chronic inflammatory bowel disease with many extra-intestinal manifestations, including cutaneous vasculitis. Henoch–Schonlein purpura (HSP) is a self-limited immune-mediated systemic vasculitis with possible gastrointestinal involvement, mimicking inflammatory bowel disease.

Diagnostic Pathways: Laboratory tests showed elevated c-reactive protein. Blood, urine and stool cultures were negative. Power-Doppler-ultrasonography showed a severe proliferative tenosynovitis affecting the extensor tendons of the hands and feet. Skin biopsy revealed acute leukocytoclastic vasculitis. Treatment with parenteral glucocorticoids was started and partial improvement of arthralgia and purpura were observed, but abdominal pain worsened and rectorrhagia appeared. Abdominal computed tomography showed hyperemia and thickening of the ileum and mild ascitic effusion. At colonoscopy serpiginous ulcers of terminal ileus were observed; ileal biopsy showed inflammatory mucosal changes with ulcers, without granuloma or vasculitis. So, also consulting anatomopathologists' opinion, we diagnosed CD. Methyl-prednisone 1 mg/Kg/daily plus mesalazine 3gr/daily was started with slow improvement.

Discussion and Learning Points: Discussion and Learning Points Although CD primarily affects the ileum, many conditions can cause ileitis, including vasculitis. Differentiating between CD with cutaneous vasculitis and HSP with ileal involvement is a clinical challenge that requires both clinical and anatomopathological evaluation.

 DOI: 10.12890/2022_V9Sup1

714 / #EV1190

PERSISTENT HEADACHE: UNCOMMON PRESENTATION OF ANTIPHOSPHOLIPID SYNDROME

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Case Description: A 35-years-old female patient with history of spontaneous pregnancy loss at 12 weeks' gestation and PT20210 GA gene mutation was admitted because of persistent analgesics-resistant headache for the last 20 days. A lumbar puncture and brain tomogram were unremarkable. Laboratory evaluation showed thrombocytopenia. Further questioning revealed recurrent episodes of fever, anorexia, tiredness, inflammatory polyarthralgia, and oral ulcers. Antinuclear antibodies were positive with a titer of 1:160 and speckled pattern. Anti-dsDNA, anti-Sm, anti-RNA polymerase I and anti-U1RNP antibodies were negative. Lupus anticoagulant and IgM anti-cardiolipin antibodies were weakly positive. The other antiphospholipid antibodies were negative. Because of the prothrombin mutation, anticoagulation was started, and the symptoms improved.

Clinical Hypothesis: APS and systemic lupus erythematosus (SLE).

Diagnostic Pathways: Scoring 21 in 2019 EULAR SLE classification criteria, the patient was started on hydroxychloroquine and prednisolone. Antiphospholipid syndrome (APS) was confirmed according to the Sapporo classification, due to fetal loss and positive lupus anticoagulant after 12 weeks.

Discussion and Learning Points: APS is characterized by the presence of antiphospholipid antibodies and thrombotic phenomena/pregnancy loss. It is more frequent in young women. Since Hughes' initial description, neurologic manifestations have been reported, mainly cerebral vascular events. Others include headache. The pathophysiology of this manifestations is still to be defined. Besides microvascular changes, it includes a direct deleterious effect of the antiphospholipid antibodies against glial cells. APS related headache is usually persistent and improves with anticoagulation, as it happened in the above-mentioned case. Uncommon neurologic manifestations of APS are more likely in lupus-related APS. Even in the absence of documented brain ischemia, anticoagulation is therapeutic.

665 / #EV1191

ALSO THE EYE: A CASE OF ORBITARY SARCOIDOSIS

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Case Description: 64-year-old moroccan male asked in September 2019 due to a two-month evolution adherent lesion in the right lower eyelid, not painful and without local inflammation signs. Associated dysthermia, sweating, photophobia and dizziness. No improvement after antibiotics and corticosteroids creams.

Clinical Hypothesis: Main differential diagnoses were metastatic/inflammatory/infectious lesions.

Diagnostic Pathways: Orbit CT/MR scan: hyperintense 10x15x18mm lesion in T1 and T2 with well-defined homogeneous contrast enhancement, with an extraconal lower-external orbital location extending to posterior margin of tarsal region. Chest CT: bilateral hilar and mediastinal lymphadenopathy without clear signs of pulmonary involvement. Negative Mantoux, RCT: 63.6U / L; normal blood count, autoimmunity biochemistry, CRP and ESR. Non necrotizing granulomas on biopsy. Definitive diagnosis was Sarcoidosis with periorbital, extrapulmonary involvement (Stage I), starting oral steroid treatment for 5 months disappearing orbital lesion, improving adenopathies and normalizing RCT.

Discussion and Learning Points: Extrapulmonary Sarcoidosis is identified in 50% of cases. Prevalence of ocular lesion is variable, being second most frequent location on extrapulmonary forms (10-25%), higher in women and blacks. Uveitis is the most common damage following conjunctivitis/conjunctival nodules, scleritis, episcleritis, orbital masses, lacrimal pathology, or optic neuritis. Orbital injuries can affect fat areas, extraocular muscles and/or the optic nerve. Main reasons for consultation are palpable mass, eyelid swelling, ptosis-proptosis, tearing, diplopia... Main age: 45-55 years. Solid lesions are more frequent, 85-90% well defined. Mainly in anteroinferior orbit. Concurrent systemic sarcoidosis in 34-50%. The greatest risk is central retinal artery occlusion. Definitive diagnosis:presence of non-caseating granulomas. Treatment consists on oral steroids ±immunosuppressants. Sometimes, a biopsy or excision of the lesions is performed.

DOI: 10.12890/2022_V9Sup1

598 / #EV1192

IS SPONDYLOARTHRITIS MORE COMMON THAN RHEUMATOID ARTHRITIS IN LEBANON?

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Background and Aims: Rheumatic diseases have a great impact on public health due to their increasing prevalence and their heavy social and economic burden. In addition, the burden of these diseases varies considerably between countries. Within the same country, the prevalence of inflammatory rheumatic disorders would be higher in a tertiary care center but recent data are lacking in Lebanon. The objective of this work is to assess the prevalence of rheumatic diseases at Hôtel-Dieu de France university hospital, which is one of the largest tertiary care centers in Lebanon.
Methods: Medical files of 1625 patients over the age of 18 seen at the rheumatology outpatient clinics of Hôtel-Dieu de France over a period of 6 months were analyzed. Patient demographics and diagnosis were collected from electronic medical records. A statistical analysis is carried out with the program R v 3.4.0.
Results: The mean age of the 1625 patients was 54.8 years (18-94 years) and the female/male ratio was 2.4: 1. Mechanical pathologies (48.12%) were more frequent than inflammatory rheumatic disorders (37.78%). Osteoarthritis was the most common rheumatic disease with a prevalence of 20.1%, followed by rheumatoid arthritis (RA) (17.6%). Among inflammatory rheumatic disorders, spondyloarthritis (SpA) was at the top of the list (14.3%) and 1.4 times more common than RA (10.5%) in our study.
Conclusions: Patients with chronic inflammatory rheumatic disorders represent more than a third of patients presenting to the rheumatology clinic in our center, with those with SpA at the top of the list, contrary to what was reported in the COPCORD study. Larger national studies are needed to validate the results of our work.

789 / #EV1193

15 YEARS EXPERIENCE OF SYSTEMIC INVOLVEMENT IN CUTANEOUS SARCOIDOSIS

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Background and Aims: International guidelines 1 recommend patients with cutaneous sarcoidosis undergo baseline systemic investigations. We aim to evaluate the assessment of cutaneous sarcoidosis in a regional Dermatology Department and develop a structured protocol for future practice.
Methods: Retrospective analysis of patients with cutaneous sarcoidosis between 2004-2021 in a regional Dermatology Department.
Results: 18 patients met inclusion criteria, with a mean age of 43 years (range 18.4-67.8) and equal gender balance. GPs referred 44.4% (n=8), internal medicine 22.2% (n=4), respiratory 16.7% (n=3), neurology 5.6% (n=1) and 11.1% (n=2) were known to dermatology. 67% (n=12) presented first with cutaneous manifestation, 50% (n=6) developed extracutaneous disease. For baseline investigations, 94% (n=17) had FBC, 89% (n=16) renal profile, 83% (n=15) LFTs, 88.9% (n=16) serum calcium, 77.8% (n=14) ACE levels, with 43% (n=6) elevated. 94% (n=17) had baseline CXR, 66.7% (n=12) had PFTs. 25% (n=4) had baseline ECGs with 2 positive findings. 25% (n=3) had ECGs subsequently with 1 positive finding. 88.9% (n=16) required specialist referral, 93.8% (n=15) respiratory, 69% (n=11) ophthalmology, and 19% (n=3) renal. 44% (n=8) had systemic treatment, 39% (n=7) topical treatment. 39% (n=7) had cutaneous symptom resolution, 28% (n=5) lost to follow up, 28% (n=5) ongoing dermatology review, and 5.6% (n=1) referred to specialist center.
Conclusions: Overall good compliance with baseline investigations. Results highlight the need for multi-specialist input for systemic evaluation of cutaneous sarcoidosis.

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1019 / #EV1194

AN UNUSUAL CAUSE OF AUTONOMIC DYSFUNCTION

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Case Description: We present the case of a 53-year-old man with no past medical history who consulted the emergency department for symptoms of asthenia and generalised weakness. The

DOI: 10.12890/2022_V9Sup1

symptoms worsened throughout the day with physical exertion and improved with rest. In the anamnesis, he also reported episodes of hypersweating and dizziness with orthostasis, as well as constipation and erectile dysfunction. Physical examination was rigorously normal including neurological examination with motor balance.
Clinical Hypothesis: He was admitted to neurology with suspicion of neuromuscular disorder.
Diagnostic Pathways: Complementary tests were performed, including biochemistry, haemogram, venous blood gases, virus serology, proteinogram, autoimmunity (ANA, ENAS) and catecholamines and metanephrines in urine without alterations. Anti-acetylcholine receptor and anti-Muscarinic antibodies test were negative. A complete electromyographic study was performed as well as cranial magnetic resonance imaging with no pathological findings. With the suspicion of autonomic nervous system dysfunction, a complete autonomic neurophysiological study was requested, including a Tilt Test, which showed sympathetic and cardiovagal dysfunction suggestive of dysautonomia. In addition, a cardiac IMBG scan was performed showing severe sympathetic cardiac denervation. Given the main suspicion of autoimmune sympathetic ganglionic involvement, anti ganglionic acetylcholine receptor and anti-alpha-1 and beta-1 adrenergic receptors antibodies were requested and were negative. Finally, a diagnosis of autoimmune autonomic ganglionopathy with negative antibodies was established and he started treatment with immunoglobulins and prednisone with good clinical response.
Discussion and Learning Points: Autoimmune autonomic ganglionopathy (AAG) is an rare acquired immune-mediated disorder of widespread autonomic failure and approximately half of the patients have the autoantibodies against the neuronal nicotinic acetylcholine receptor.

1308 / #EV1195

ANTIPHOSPHOLIPID SYNDROME AND STROKE IN YOUNG PATIENTS

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Case Description: We present 3 cases of Ischemic stroke in young women. Case1 and 2: 51 and 43 years old women (respectively), presented to the emergency ward (ER) with right hemihypoesthesia. In the first case, brain computed tomography (CT) showed no evidence of acute lesion. Angio-TC showed a distal thrombus in the medial cerebral artery and she underwent fibrinolysis. In case 2, a left insular hypodensity was visible on brain CT. She also had a thoracalgy that evolved as bilateral thromboembolism. They were admitted in the stroke unit for surveillance and study. Case 3: 43 years old woman, observed in the Ophtalmology emergency room with a 72 hours hystory of visual impairment and headaches . After visual fields examination, she was diagnosed with left homonymous hemianopsy and underwent brain CT, showing right occipital hypodensity.
Clinical Hypothesis: In every case, the diagnosis of Ischemic stroke, of unclear ethiology, was stablished.
Diagnostic Pathways: Every patient underwent ethiologic study with echocardiogram, echodoppler of the cervical vessels, holter 24 hours and prothrombotic study. All patients had positive antiphospholipid antibodies at baseline and 12 weeks later. The diagnosis of antiphospholipid syndrome was made and patients iniciated hypocoagulation.
Discussion and Learning Points: About 20% of all strokes in young adults are due to antiphospholipid syndrome. Antiphospholipid syndrome is defined by the presence of a clinical event: vascular thrombosis/pregnancy morbidity and of a laboratorial criteria: presence of at least one antiphospholipid antibody in two tests separated by a minimum of 12 weeks. Hypocoagulation with warfarin is indicated in the presence of arterial thrombosis.

1251 / #EV1196

INFLAMMATORY MYOPATHY SECONDARY TO COVID-19 VACCINATION

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Case Description: A 49 year old male, healthy, with diminished lower limbs strength, persistent pain and difficulty walking for 4 days. The muscular pain started at the right lower limb progressing towards the right upper limb and later progressing bilaterally to all 4 members. No joint complaints, skin involvement, difficulty in swallowing or any other complaints were reported. No previous history of recent infection or high-intensity physical exercise. The patient was vaccinated for COVID-19 (Janssen), 10 days prior to starting the complaints. Physical examination showed moderate edema in both legs and proximal muscle atrophies of the upper and lower limbs, with decreased proximal muscle strength bilaterally (grade IV/V) and positive Gowers' sign. Extensive laboratory investigations revealed high levels of transaminases, LDH, CK and CKMB (ALT/GPT 1734 UI/L; AST/GOT 2659 UI/L; LDH 3635 UI/L; CK >1300 UI/L; CKMB 41.6 ng/mL), suggesting muscle damage.
Clinical Hypothesis: Inflammatory myopathy (IM).
Diagnostic Pathways: During hospitalization, was initiated prednisolone 1 mg/kg/weight (70 mg/day) and requested: ◦Doppler ultrasound of the lower limbs: did not reveal signs of deep venous thrombosis. Transthoracic echocardiogram: failed to show any cardiac involvement. Electromyography: revealed signs suggesting inflammatory myopathy. Autoimmunity study (ANA, Anti-DNA and Anti-JO-1): was negative. Patient almost total recovered the proximal muscle strength, after few days of hospitalization.
Discussion and Learning Points: The temporal link between symptoms and vaccination suggests the diagnosis of COVID-19 vaccine-induced myositis (Janssen) as a probable cause. The

 DOI: 10.12890/2022_V9Sup1

association between previous vaccination and IM should be studied in large cohorts to assess the causality.

1227 / #EV1197

DESCRIPTION OF SARS-COV-2 INFECTION IN A COHORT OF PATIENTS WITH SARCOIDOSIS FROM A REGIONAL HOSPITAL

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Background and Aims: ACE was proposed to play a role in the pathogenic mechanism of Sars-CoV-2. Given that sarcoidosis characteristically raises ACE levels, we wanted to describe the incidence and severity of SARS-CoV-2 infection in patients with sarcoidosis from our hospital.

Methods: Retrospective and observational descriptive study of a 51 patients' cohort diagnosed with sarcoidosis under follow-up at Hospital de Terrassa. Data were collected on gender, age, Charlson index, sarcoidosis stage, ACE value, immunosuppressive treatment, detection of SARS-CoV-2 infection, and if so, need for admission, prevalence of severe respiratory failure or death, or if they required ventilatory support.

Results: 8 patients (15.7%) were diagnosed with SARS-CoV-2 infection by PCR test, and a third of them were under active sarcoidosis' treatment. 5 of the patients were mild and 3 required admissions due to respiratory insufficiency. 2 patients required ventilatory support, one with high-flow nasal cannulas, and the other with invasive mechanical ventilation. This last patient had a 5 points Charlson index. Patients with severe manifestations presented normal ACE values and none of them were under active treatment. A high ACE value was detected in only one patient with SARS-CoV-2 infection.

Conclusions: It is striking that the incidence of infection by SARS-CoV-2 in this cohort is higher than in other series. Most of the SARS-CoV-2 patients presented mild symptoms and those with severe symptoms had normal ACE levels and were not under targeted treatment. This could suggest that severity appears to be more associated with comorbidity rather than with ACE levels (Fisher's test 0.24, not significant).

304 / #EV1198

HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS AS A RARE MANIFESTATION OF HERPES SIMPLEX VIRUS INFECTION

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Case Description: A 30-year-old caucasian man presented with fever, fatigue, sore throat, intraoral ulcers, abdominal pain, nausea and vomiting. Initial laboratory workup revealed pancytopenia, prolonged PT and PTT values, hypofibrinogenemia, elevated liver enzymes and LDH level, elevated CRP level, hypertriglyceridemia and hyperferritinemia of up to 300,000 ng/mL. During hospitalization, the patient developed seizures. PCR test for herpes simplex virus (HSV) from the cerebrospinal fluid and the oral mucosal lesions was positive. CT scan showed diffused cerebral edema.

Clinical Hypothesis: The combination of the clinical and laboratory findings suggested the diagnosis of Hemophagocytic lymphohistiocytosis (HLH). In the context of HSV infection, the differential diagnosis of the neurological findings included posterior reversible encephalopathy syndrome (PRES) and HSV-encephalitis.

Diagnostic Pathways: Bone marrow biopsy showed hemophagocytosis. dexamethasone, acyclovir and levetiracetam were initiated, resulting in marked clinical and laboratory improvement.

Discussion and Learning Points: In this case, the leading diagnosis was HSV-related HLH, while the neurological manifestation was related to either PRES or HSV-encephalitis. Viral infections are the most common trigger of HLH, 62% of them are due to different herpes viruses types. However, only few cases related specifically to HSV were reported. Since HLH is a potentially fatal condition, when suspected, it is critical to look for a trigger and initiate the appropriate treatment as soon as possible.

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2283 / #EV1199

SAPHO, AN UNUSUAL SYNDROME

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Case Description: A 51-year-old male is referred to Internal Medicine by Rheumatology with a clinical picture of weight loss, acne and

 DOI: 10.12890/2022_V9Sup1

arthralgias in carpals, wrists, elbows, shoulders, knees and ankles. By the time, the patient only had a history of hypertension, type 2 Diabetes, and urticarial in relation to stress and dexketoprofen use. There was an elevation of erythrocyte sedimentation rate (66 mm/h) and positive anti-cyclic citrullinated peptide antibody in the analysis. The rest of the autoimmunity markers were normal. Because of a weight loss of 22 Kg in the last three months accompanying the articular pain we requested a chest computed tomography (CT) scan. The CT scan showed unspecific mediastinal and axillar adenopathies alongside sclerosis of the proximal third in both clavicles and the proximal portion of the sternum.
Clinical Hypothesis: The main suspicion was synovitis, acne, pustulosis, hyperostosis, and osteitis (SAPHO) syndrome.
Diagnostic Pathways: A bone gammagraphy was carried out finding out uptake foci at the sternum and a hyperostosis spot in the left supraciliary region after which treatment with prednisone was started.
Discussion and Learning Points: The cardinal clinical manifestation in SAPHO syndrome is bone hyperostosis with or without skin involvement, like severe acne or palmoplantar pustulosis. Is considered an autoinflammatory syndrome that may be related to various etiologies. The diagnosis is based on clinical manifestations and radiological examinations, as we have seen in our case. Nonsteroidal anti-inflammatory drugs, glucocorticoids, methotrexate, targeted drugs, or bisphosphonates have been proposed to alleviate symptoms and prevent disease progression.

720 / #EV1200

SPONTANEOUS BILATERAL ADRENAL GLAND HEMORRHAGE: VITT VERSUS ANTIPHOSPHOLIPID ANTIBODY SYNDROME

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Case Description: A 59-year-old female patient was admitted to our internal medicine department for asthenia and abdominal pain. The diagnosis of bilateral adrenal hemorrhage was made after admission on the basis of an abdominal CT. Her evolution was marked by multi-systemic manifestations including pulmonary embolism and minimal cardiac involvement.
Clinical Hypothesis: Based upon the imaging and the timing of onset, the hypothesis of a bilateral adrenal hemorrage secondary to SARS-CoV-2 vaccine injection was put forward.
Diagnostic Pathways: Contrast enhanced abdominal CT-scan showed bilateral adrenal hemorrhage, and a contrast enhanced thoracic CT-scan revealed pulmonary embolism. A cardiac echography was also realized and revealed a thin pericardial effusion. Biologically, troponins were elevated, and anti-phospholipid antibodies were positive twice on a 12 week-interval. Anti-PF4 antibodies were negative in two separate tests.
Discussion and Learning Points: We report a case of bilateral adrenal hemorrhage associated with other thrombotic manifestations, secondary to antiphospholipid antibody syndrome. Treatment consisted of therapeutic oral anticoagulation and hormonal substitution. Our case has the particularity of having occurred in the course of the AstraZeneca vaccine against COVID-19. A causal link with the vaccine cannot be formally asserted but seems possible in view of its occurrence a couple of days after administration of the vaccine and the clinical, biological and radiological signs very similar to those of a classical VITT (vaccine-induced immune thrombotic thrombocytopenia). Future publications will allow us to identify possible new cases to support this hypothesis.

452 / #EV1201

PERIARTICULAR CALCIFICATIONS AND ANTISYNTHETASE SYNDROME

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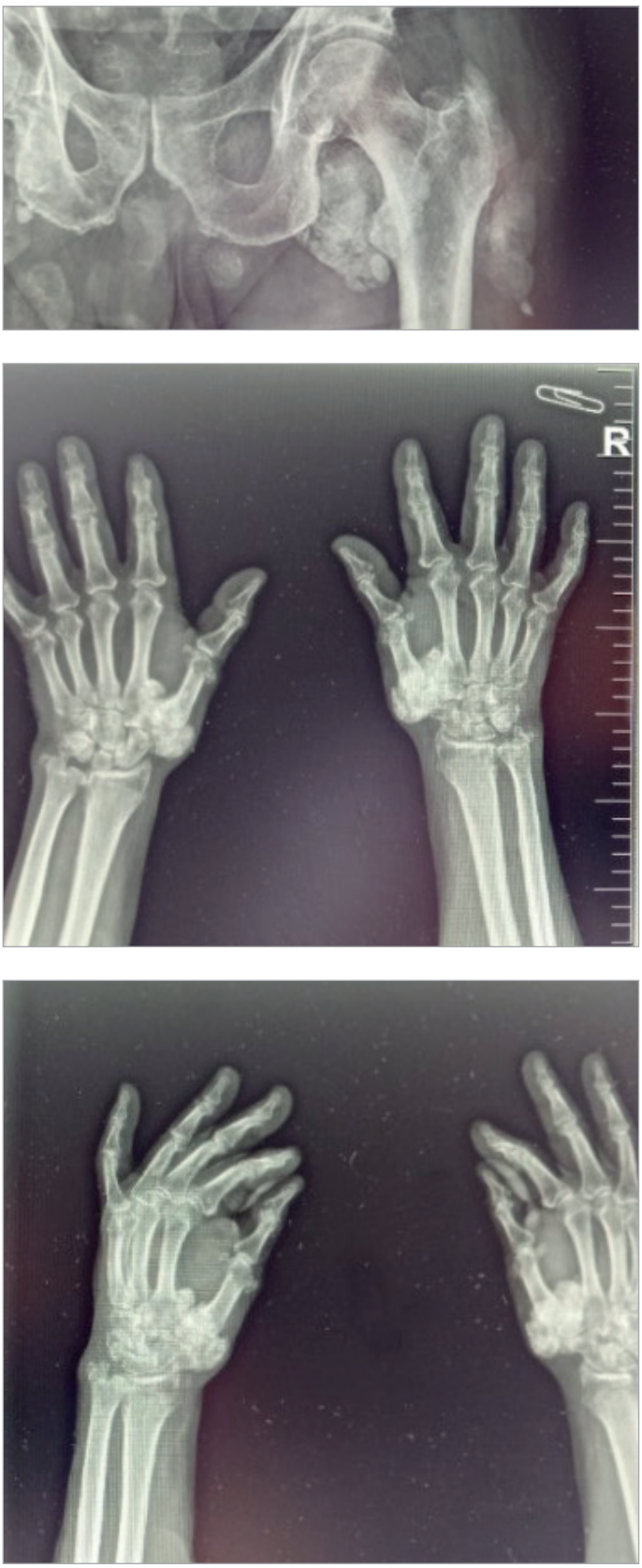
Case Description: A 71 -year-old male presented to the emergency department with a fever lasting 3 weeks, arthralgias, muscle stiffness, dry cough and dyspnoea. No other accompanying symptoms. A haemogram was performed with a biochemistry including renal function, ions and liver profile which was normal and a CRP of 10.6mg/dL. Blood gases showed a pO2 of 41mmHg, a pCO2 of 31mmHg and a pH of 7.47. A chest X-ray was performed showing interstitial lung disease. A urine culture and two rounds of blood cultures were taken and empirical antibiotic treatment with piperacillin-tazobactam was started.
Clinical Hypothesis: Interstitial pneumonia was suspected.
Diagnostic Pathways: A high-resolution CT scan was requested and a serology for atypical pneumonia and an immunological study were added to the analysis. The CT scan was compatible with nonspecific interstitial pneumonia. Immunology panel was normal except for anti-Jo1 antibodies and anti-Ro52. Given the arthralgias X-rays of the hands and hips were performed, showing extensive periarticular calcifications (Figure).
Discussion and Learning Points: Antisynthetase syndrome is characterised by antisynthetase antibodies, inflammatory myopathy, interstitial lung disease, mechanic's hands, arthritis, fever and Raynaud's phenomenon. The most characteristic joint involvement of antisynthetase syndrome is non-erosive symmetrical polyarticular involvement and may be associated with distal calcinosis. Calcinosis usually develops in areas where there has previously been an inflammatory process, in our case it is possible that calcinosis is the result of a previous subclinical inflammatory process. Other processes that can cause calcinosis, although in our patient they were ruled out, are metabolic diseases, parasitic infections, and muscular traumatic processes or even periarticular infiltrations.

 DOI: 10.12890/2022_V9Sup1



#EV1201 Figure 1.

810 / #EV1202

CYCLOPHOSPHAMIDE INTOXICATION IN PATIENT WITH EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS

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Case Description: A 38 year-old patient diagnosed with eosinophilic granulomatosis with polyangiitis (EGPA) presents at the Emergency department with massive macroscopic haematuria. He was admitted to the surgery department with the diagnosis ”Haematuria for determination”. The patient was taking cyclophosphamide (CYC) 100 mg/day for his vasculitis, for 10 uninterrupted years, with no consultation by any rheumatologist for 8 years. He complained of myalgia, arthralgia, weight loss, wheezing, fever, sinusitis. Birmingham Vasculitis Activity Score (BVAS) was 18/33. After 2 days, the case was consulted by the rheumatologist and was transferred to Internal Medicine Department with the diagnosis ”EGPA, Haemorrhagic Cystitis, probable due to CYC intoxication””.

Clinical Hypothesis: The clinical hypothesis was ”Haemorrhagic cystitis due to CYC intoxication”.

Diagnostic Pathways: The patient was completed with laboratory and imaging exams. On CBC: leukopenia (3,200/mm^3), anemia (5.6 g/L), thrombocytopenia (110,000/mm^3), ESR=78 mm/h, CRP=58 mg/L. Positive pANCA. hypocomplementaemia (C3). Normal creatinine clearance. Urinalysis: haematuria. CYC was stopped. He underwent to blood transfusion. It was commenced Cortico-therapy prednisone (1 mg/kg/day), azathioprine(50 mg/day), calcium+Vit.D3 (1000/88 IU), pantoprazole (40 mg/day). After 5 days, ESR=34 mm/h, CRP=22 mg/L, but the haematuria was already present and persistent. The patient was referred to the Urology department at the tertiary hospital center. He underwent urologic procedures, and one month later, he was stable. He’s taking azathioprine, prednisone, calcium+vit. D3, pantoprazole with BVAS 3/33.

Discussion and Learning Points: In this case was observed an overdose of cyclophosphamide, (for more than 10 years), and causing a risky complication such as severe anaemia due to haemorrhagic cystitis. This case reminds for a careful follow up of the patients with vasculitis. It’s important to achieve remission and monitor clinical findings, in order to achieve better clinical results.

DOI: 10.12890/2022_V9Sup1

519 / #EV1203

THE THREE NOSOGICAL ENTITIES OF IMMUNE-MEDIATED INFLAMMATORY DISEASES AND THE MULTIFACTORIAL OSTEOPOROSIS DIAGNOSED IN A SEXAGENARIAN MAN: A CHALLENGING DIAGNOSIS

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Case Description: A 60-year-old man with no past medical history. At his first presentation in January 2019, he was diagnosed firstly seronegative for elderly onset rheumatoid arthritis (SEORA) with lung rheumatoid nodules and suspected subcutaneous rheumatoid nodules, secondly multifactorial osteoporis related to smoking, alcohol and coffee consumption, denutrition and SEORA and thirdly adenomyoma of prostate. He was discharge with appropriate medication. He discontinued on his own initiative. After 5 months, he was hospitalized with pain and stiffness in the larger joints predominantly in the shoulder joint and hip joint then in the smaller joints. He reported additionally headache predominantly over the right temple, which was accompanied with blurred vision and jaw claudication. Physical findings included tenderness in the shoulder with limited abduction and in the hip; right temporal artery tenderness with weak pulse.
Clinical Hypothesis: Multifactorial osteoporosis associated with SEORA with lung rheumatoid nodules and suspected subcutaneous rheumatoid nodules as autoimmune disease, Giant cell arteritis GCA with polymyalgia rheumatica (PMR) as autoinflammatory disease and adenomyoma of prostate as inflammatory disease of undetermined mechanism.
Diagnostic Pathways: Laboratory tests included CRP 83. 1 mg/l, ESR 140 mm at first hour. Temporal arterial biopsy results confirmed the diagnosis of GCA. Further, GCA was retained on basis of ACR 1990 criteria. PMR was retained according to EULAR/ACR 2012 Criteria.
Discussion and Learning Points: GCA, PMR, and SEORA, currently known to be interrelated type of diseases with simultaneously or consecutively onset, is part of immune-mediated inflammatory diseases (IMIDs). Some IMIDs are known to be cause of osteoporosis.

1147 / #EV1204

CHARACTERISTICS OF PLEURAL EFFUSION IN SYSTEMIC AUTOIMMUNE DISEASES

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Background and Aims: Understand characteristics of pleural effusion (PE) associated with systemic autoimmune diseases (SAIDs)
Methods: Retrospective analysis of patients with PE secondary to SAIDs who underwent thoracentesis at Arnau de Vilanova University Hospital from 1993 to 2020.
Results: 38 PE were diagnosed: 13 Systemic Lupus Erythematosus (SLE), 6 scleroderma, 6 sarcoidosis, 6 rheumatoid arthritis (RA), 3 Wegener (GPA), and 1 Undifferentiated Connective Tissue Disease (UCTD), Mixed Connective Tissue Disease (MCTD), Sjögren's síndrome and Giant-cell arteritis. PE proceeded SAID in 55% cases. In scleroderma and RA PE was posterior, with a median onset of 32 and 210 months from the diagnosis respectively. Women represent 63% of PE with a median age of 55 years (quartiles 45-68). 47% had bilateral PE, while 82% were small than ½ hemithorax at chest radiography. Pulmonary associated pathology was present in 54%: 100% of scleroderma and sarcoidosis. According to Light's criteria all PE were exudates, 58% with lymphocyte predominance. Antibodies were present in liquids: We found positive ANA in PE in 100% of SLE, MCTD and UCTD and in 50% of scleroderma. One patient with GPA had positive ANCA in PE. 1/3 of RA had positive rheumatoid factor and other 1/3 had anti-CCP. 1/3 of patients required therapeutic thoracentesis. Median resolution of PE was 60 days (30-240), reappearance is targeted at 7.4%.
Conclusions: PE coincides with the diagnosis of SAIDs 55% of the cases. In scleroderma and rheumatoid arthritis the disease precedes the onset of PE. Detection of ANA or other autoantibodies in pleural fluid may support the diagnosis of SAIDs.

296 / #EV1205

UNMASKING A MIMICKER: A CASE OF KIKUCHI FUJIMOTO DISEASE COEXISTING WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: We present a case of a 19 year-old, male, Filipino, presented with persistent fever with cervical lymphadenopathy. Patient was diagnosed as Kikuchi Fujimoto Disease (KFD) with co-existing Systemic Lupus Erythematosus based on histopathologic examination. Methylprednisolone and Hydroxychloroquine was given to the patient which provided resolution to the symptoms.
Clinical Hypothesis: Kikuchi- Fujimoto disease is extremely rare

DOI: 10.12890/2022_V9Sup1

and often under-diagnosed condition where it poses significant diagnostic challenge to clinicians. It mimics the clinical features of many condition such as tuberculosis and malignancy. Hence, it should be considered as one of the differential diagnosis for cervical necrotizing lymphadenitis. Early recognition and accurate diagnosis is imperative to prevent unwarranted procedures and inappropriate treatments.

Diagnostic Pathways: The patient meets 5/11 American Colleagues of Rheumatology Diagnostic Criteria for SLE and a skin biopsy of the rash showed liquefaction degeneration of basement membrane associated with pigment incontinence with lymphocytic infiltrates surrounding the superficial vessels, hence, a diagnosis of SLE. A histopathologic examination of the cervical lymph node was done. A diagnosis of KFD coexisting with SLE was established.

Discussion and Learning Points: Kikuchi-Fujimoto disease can be clinically challenging and relies on histologic interpretation as no specific diagnostic laboratory tests are available. It is one of the differential diagnosis of persistent cervical lymphadenopathy, and when it is present, it would be wise to suspect, during its clinical course, a possible association with other autoimmune conditions. Early and accurate diagnosis is imperative to prevent unwarranted procedures and inappropriate treatment.

760 / #EV1206

INFLAMMATORY MYOPATHIES: DIAGNOSTIC CHALLENGES

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Case Description: We present the case of a 79-year-old female, diagnosed with fibromyalgia thirty years ago, forwarded by a local institution due to altered results in preoperative routines. The patient had been electively admitted to undergo neurosurgical intervention due to cervical hernia, assumed to be responsible for symptoms of proximal muscle tetraparesis with approximately a month of evolution. By the time of admission in the emergency room of our institution, she also presented with dysarthria and dysphagia, leucocytosis and increased C-reactive protein, anemia, rhabdomyolysis and acute kidney injury.

Clinical Hypothesis: Inflammatory myopathies are characterized by progressive muscle weakness associated to chronic inflammation. They include dermatomyositis, polymyositis, necrotizing myositis, and inclusion-body myositis. In advanced stages, patients may present dysphagia, risk of aspiration and respiratory failure due to involvement of respiratory muscles. Diagnosis is both clinical and laboratorial based, including electromyography. Muscle tissue biopsy confirms the diagnosis and glucocorticoids are the first line of treatment.

Diagnostic Pathways: Laboratorial results showed strong positivity for anti-Mi2 antibody and patient developed heliotrope erythema during hospitalization. Although dermatomyositis was the most likely diagnosis, the patient died before a confirmative muscle biopsy could be performed, after developing a severe pneumonia after an episode of aspiration.

Discussion and Learning Points: Prognosis of dermatomyositis relies on its timely diagnosis and treatment. The pre-existing diagnosis of fibromyalgia and the hypothesis of cervical hernia may have been confounding factors that delayed diagnosis in this case, partially explaining the advanced disease stage at the time of admission. This clinical case reinforces the importance of integrate all existing clinical elements, current and past.

2424 / #EV1207

A 49 YEARS OLD WOMAN WITH FEVER AND BREAST IMPLANTS

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Case Description: A 49-years-old woman with a history of augmentation mastoplasty for aesthetic reasons years ago, came to the medical office for several months' symptoms of fever, insomnia, arthralgias and muscular weakness. The physical examination did not show alterations. The initial blood test showed an elevation of CRP without other findings.

Clinical Hypothesis: Autoimmune/inflammatory syndrome induced by adjuvants (ASIA syndrome).

Diagnostic Pathways: A second blood test was done with negative autoimmunity. It was also done a complete serology which was negative for an acute infection. The study was completed by the realization of a body CT who showed an increase size of axillary adenopathies. Because of these findings a PET-CT was also performed that confirmed axillary hypermetabolic adenopathies of low to moderate intensity. A lymph node biopsy was request which evident a reactive lymphadenitis and occasional multivacuolated histiocytic cells with foreign material inside, compatible with silicone. Finally, according to these results and the clinic of the patient an ASIA syndrome was diagnosed and the patient was referred to the surgery service for prothesis removal

Discussion and Learning Points: The ASIA symdrome is a set of conditions that are the result of an immune response to adjuvants. These conditions appear with a variable latency time and occur

 DOI: 10.12890/2022_V9Sup1

as a result of the interaction between genetic and environmental factors. It is necessary meet two mayors or two minor and one mayor criteria for its diagnosis. The treatment is the removal of the adjuvant with the cure of the symptoms. In some occasions immunosuppressive drugs are necessary.

697 / #EV1208

VARICELLA ZOSTER VIRUS-RETINAL NECROSIS AND LUPIC NEPHROPATHY: WHEN IMMUNOSUPPRESSIVE PATHWAYS MEET

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Case Description: A 71-year-old Peruvian woman was admitted after months of lower limbs' edema and decreased visual acuity. During admission, creatinine elevation, anemia, thrombocytopenia, anti-ANCAs and single-chain anti-DNAs antibodies were identified in laboratory findings. Renal biopsy found mesangial proliferation with thickening of capillary loops, endocapillary hypercellularity and focal and segmental necrosis with inflammation, compatible with stage IV lupus nephritis. Cyclophosphamide was then initiated. Funduscopy by Ophthalmology discovered left retinal necrosis, with positive Varicella Zoster Virus aqueous humor sample, initiating treatment with aciclovir and foscarnet.

Clinical Hypothesis: Undiagnosed and therefore untreated nephropathyes, including lupus nephritis, could be associated with immune system deterioration, favoring the development of invasive Varicella-Zoster diseases, more frequent in patients with advanced immunosuppressive stages (HIV, leukemia...).

Diagnostic Pathways: Identification of renal immunosuppressed patients and their viral serological classification would drastically reduce the sequelae caused by these viral manifestations (retinal necrosis, encephalopathy, Ramsay Hunt syndrome, Guillain-Barré and myelitis).

Discussion and Learning Points: Nephropathy is associated with immune dysfunction through various mechanisms. First, uremia is associated with marked increase of pro-inflammatory (IL6, TNF-α) and anti-inflammatory cytokines (IL-10), resulting in heavy imbalance between oxidative and defense mechanisms in nephropathic individuals. Oxidative stress, comorbidities and volume overload prevent proper development of defensive cell function identification. In end-stage renal diseases, antigen presentation capacity of macrophages and dendritic cells is decreased by alterations in costimulatory molecules (CD80, CD86) and scavenger receptors (CD36). Proliferation of T cells is reduced in the final stages of uremia, increasing the Th1 / Th2 lymphocytes ratio, and thus decreasing interleukins IL-4 and IL-5, resulting in the deterioration of humoral immunity.

2025 / #EV1209

10 YEARS OF TAKAYASU DISEASE

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Background and Aims: Descriptive retrospective cohort study of this disease in western Malaga. All cases were analyzed in 10 years.

Methods: Variables: age, hypertension, dyslipidemia, smoking, sex, nationality, affected territory. We studied the relationship between the variables and the number of outbreaks by PET and/or angioRM with a binomial regression model in SPSS v10 and Gretl.

Results: There are 5 cases, most of them women. Age between 40 and 50 years. Three were nationals and two foreigners. 67% had outbreak in the first three years after diagnosis. Four had left subclavian and one left carotid involvement.

Conclusions: Takayasu's disease is a large vessel granulomatous vasculitis. It affects the aorta and main branches. It is chronic but it presents in flares. Initial lesions are usually seen in the left subclavian artery and later progress to other territories (left common carotid, vertebral, brachiocephalic, right subclavian and right carotid). It affects more women (8-10 times) with age of onset between 10 and 40 years. It is a disease of worldwide distribution, with higher prevalence in Asian countries. The worldwide prevalence is estimated at around 1-10 patients/100,000 inhabitants. In our environment there are no significant differences with respect to global data according to our results.

540 / #EV1210

A RARE CAUSE OF BILATERAL PULMONARY INFILTRATES

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Case Description: A 21 year old women with autoimmune polyglandular syndrome type 2 (autoinmune hypothyroidism and adrenal insufficiency), celiac disease and iron deficiency anemia on treatment with oral iron. She was admitted to the hospital during COVID-19 pandemic period with clinical presentation of fever, dyspnea with minimal exertion, dry cough and severe fatigue. At physical examination stands out pallor, tachycardia and bilateral crackles. Her initial blood test showed Hb 7.2g/dL. On chest CT is evidenced a central interstitial pattern and areas of alveolar

 DOI: 10.12890/2022_V9Sup1

consolidation in upper lobes. Several SARS-CoV-2 tests were done with a negative result. Bronchoscopy was performed with visualization of diffuse pulmonary hemorrhage and BAL cytology showed hemosiderophages.
Clinical Hypothesis: Pneumonia due to SARS-CoV-2; pneumonia due to other pathogens; autoimmune disease
Diagnostic Pathways: During autoimmune study we found anti-GBM antibody. A renal biopsy was performed with the result of extracapillary glomerulonephritis and deposit of IgG in capillaries.
Discussion and Learning Points: Anti-GBM disease is a small vessel vasculitis in which circulating antibodies are directed against an antigen intrinsic to the glomerular basement membrane (GBM) and alveolar basement membrane (ABM). Most patients with anti-GBM disease have clinical features of rapidly progressive glomerulonephritis, whereas pulmonary hemorrhage is more common in younger patients. Is is essential to keep in mind autoimmune diseases in the differential diagnosis, specially in patients with autoimmunity background.

259 / #EV1211

A CASE OF BEHÇET'S DISEASE: THE CHALLENGE OF DIVERSITY

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Case Description: 44 year-old man, with history of Raynaud's disease, hospitalised in context of fever, left lumbar pain, oral ulcers, and arthritis of the right knee. Initially interpreted as an infection, the patient completed a cycle of empirical ceftriaxone. Infectious serologies, blood and urine cultures were negative and, despite the antibiotic, the patient maintained inflammatory signs and functional impotency of the knee.
Clinical Hypothesis: While hospitalised, he developed generalised papules, pustules, and cutaneous nodules, which led to the hypothesis of Behçet's disease.
Diagnostic Pathways: A pathergy test was done (negative); typing for HLA-B27 (negative) and HLA-B51 (positive); arthrocentesis of the knee (sterile synovial fluid); a biopsy of one of the cutaneous lesions (dense neutrophilic infiltrates and leukocytoclastic vasculitis). These findings supported the diagnostic hypothesis and treatment with colchicine and topical corticosteroids was started, leading to gradual remission of the fever, and resolution of the arthritis and the muco-cutaneous lesions. The Ophthalmology department excluded uveitis or signs of vasculitis; a cerebral angio-magnetic resonance showed no alterations. An abdominal ultra-sound revealed hepatic angiomas, a finding that has not been described for this disease.
Discussion and Learning Points: Behçet's disease is a vasculitis that affects blood vessels of any size, resulting in multisystemic involvement that includes aphthous ulcers, cutaneous lesions, arthritis, uveitis, and thrombosis. This disease is more common along the ancient Silk Road, with highest prevalence in Turkey. The disparity of symptoms that characterizes this disease was challenging for the diagnosis, highlighting the importance of differential diagnosis. Importantly, the observation of hepatic angiomas warrants attention as a possible new manifestation.

1256 / #EV1212

CENTRAL NERVOUS SYSTEM INFLAMMATORY VASCULITIS: A CASE REPORT

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Case Description: A 77-years-old woman, with a history of hypertension, dyslipidemia and unprovoked pulmonary embolism (anticoagulation with apixaban), was admitted with an acute confusional state, associated with decreased limbs muscular function. In the previous months the patient had been complaining of mental fogginess and slight alteration of gait. Clinical exam showed fever, neck stiffness, severe hypotonia in both arms and legs (unable to flex against gravity) and livedo reticularis. Laboratory evaluation revealed leukocytosis, increased C-reactive-protein and erythrocyte sedimentation rate. Drug panel was negative. Head computed tomography scans showed no signs of acute ischemia or hemorrhage. Lumbar puncture: colourless cerebrospinal fluid (CSF) with normal pressure, hyperproteinorrachia, normal glycorrachia and slightly elevated cell count without prevalent cell population.
Clinical Hypothesis: Encephalitis was assumed and empirical treatment with acyclovir was started without clinical improvement.
Diagnostic Pathways: Blood and CSF cultures were negative for bacteria, fungus and virus. Brain magnetic resonance showed multiple punctiform infarctions of apparent microangyopathic etiology that is suggestive of a vasculitis diagnosis. Autoimmune panel positive for lupus antibody, with negative anti-neutrophil cytoplasmic antibodies (ANCA). Echocardiogram was normal. Vasculitis of medium/small vases affecting central nervous system was assumed and the patient started imunossupression with high dose metilprednisolone followed by cyclophosphamide, with a complete resolution of hypotonia and confusion state.
Discussion and Learning Points: Vasculitis is a group of diseases that can manifest with a variety of symptoms, with neurologic being one of the most serious. This case illustrates the importance of a high suspicion level in order to make an early diagnosis and initiate correct treatment, improving the clinical outcomes.

 DOI: 10.12890/2022_V9Sup1

1707 / #EV1213

AN ELDERLY PATIENT WITH FEVER, PURPURA AND RAPIDLY DETERIORATING RENAL FAILURE

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Case Description: A 71-year-old patient, with a history of Sjögren's syndrome, was admitted toour Clinic due to fever up to 39°C for a month, fatigue and a lower extremity rash for the last 10 days.
Clinical Hypothesis: Cryoglobulinemic vasculitis (CV) refers to a small vessel vasculitis with multiple organ involvement, due to the deposition of cryoglobulin in the vessel wall. Its manifestations are multiple and can range from mild to life-threatening entities. The aim of the present is to highlight a rare case of CV with rapidly evolving renal damage without microscopic hematuria or proteinuria.
Diagnostic Pathways: The patient was febrile with an extensive lower extremity purpuric rash. Blood chemistry revealed normocytic anemia (Hb 6.8 gr/dl), eGFR of 50 ml/min/kg and highly elevated inflammatory markers. Whole body CTs and bone marrow aspiration/biopsy had no findings. HBV,HCV, HIV testing was negative, while low C4, high RF values were detected, as well as elevated type IIserum cryoglobulins (cryocrit of 4.5%). Due to rapid deterioration of renal function (without albuminuria or microscopic hematuria), high-dose corticosteroids were initiated without initial response. A renal biopsy identified immune-complexes on the renal vessels. The patient underwent multiple plasmapheresis sessions and rituximab IV with significant improvement.
Discussion and Learning Points: Mixed cryoglobulinemia syndrome is a rare entity, difficult to manage, the prevalence and the incidence of which are unknown.The worse prognostic factors are age and renal involvement, with renal failure being reported as the main cause of death. Its diagnosis is crucial and can be areal challenge.

1979 / #EV1214

HEPATORENAL SYNDROME IN AN ELDERLY PATIENT: WHEN AGE SHOULD NOT BE AN EXCLUSION CRITERION

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Case Description: A 69-year-old patient, with unremarkable past medical history, was admitted to our Clinic due to fever up to 38°C for the last 20 days with dry cough, tinnitus, peripheral neuropathy (drop foot on the left), glomerular hematuria and increased liver/ cholestatic enzymes.
Clinical Hypothesis: ANCA-related vasculitides are multisystemic diseases characterized by necrosis/inflammation of mainly small vessels and include granulomatosis with polyangiitis (formerly Wegener disease, GPA), microscopic polyangiitis (MPA) and eosinophilic granulomatosis with polyangiitis (Churg-Strauss syndrome, EGPA). They affect people of both sexes. The organs most commonly affected are the upper and lower respiratory tract, kidneys, skin, eyes and peripheral nerves. Herein, we aim to highlight a case of GPA in an elderly patient with multisystemic involvement.
Diagnostic Pathways: The patient was febrile with left drop foot. Blood chemistry showed increased inflammatory markers, normocytic anemia, thrombocytosis, increased liver/ cholestatic enzymes, anti-core HBV(+), HBsAg(-) and undetectable HBV-DNA, Mantoux 2 mm/ negative Quantiferon. Piperacillin-tazobactam IV was initially administered without response. Heart/abdominal ultrasounds, endoscopies as well as full-body CTs were without findings. Since renal biopsy was not completed, corticosteroids were initiated, with remission of fever. Anti-PR3 and RF were highly positive. Cyclophosphamide IV was then administered, the patient responded immediately and exited the hospital with corticosteroids po and entecavir.
Discussion and Learning Points: GPA is a potentially multisystemic necrotic granulomatous vasculitis. It can affect patients of any age, the elderly though with multisystemic involvement can be very difficult to manage with compromised long term survival.

2568 / #EV1215

A NOVEL COMBINATION FOR THE TREATMENT OF GUILLAIN-BARRÉ SYNDROME (GBS): EXPERIENCE AT A PRIVATE HOSPITAL IN PUEBLA, MEXICO

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Background and Aims: Backgrounds and aims: Therapeutic plasma exchange (TPE) has shown to hasten recovery in patients with GBS1. The Committee of the American Society for Apheresis (ASA) recommends TPE up to 6 sessions in severe cases of GBS (A1 recommendation), or Intravenous immunoglobulin (IVIG), or TPE followed by IVIG2. The study's objective was to show the outcome of disability grade and cost-effectiveness in a retrospective study of four selected patients with severe GBS, treated with TEP + IVIG at a private hospital in Puebla, Mexico.
Methods: The study retrospectively analyzed clinical data of four selected GBS patients who were treated with 3 TPE sessions (using apheresis system) + IVIG (low dose 0.5 g/kg/day for 5 consecutive days). Fluid replacement with albumin 5%, and additional treatment with steroids. The medical records were analyzed for demographic data, indications for TPE, results of the treatment, costs and complications. In addition, the patient's muscle strength progress was video recorded.

 DOI: 10.12890/2022_V9Sup1

Results: After 3 weeks, the treatment significantly decreased GBS disability score and improved Medical Research Council muscle strength scores (p=0.002). None adverse events were reported in any procedure. Difficulty in jugular venous access wasn't observed. Conclusions: There was no difference in efficacy with 3 TPE sessions and the combination with IVIG in comparison to ASA recommendations. Both therapies combined showed potential benefits and cost effectiveness. A study with a higher number of patients is needed in order to strengthen the results and provide more accurate suggestions for patients.

1187 / #EV1216

AUTOIMMUNE ENCEPHALITIS: A DIFFICULT DIAGNOSIS

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Case Description: 75 years old man, ECOG 0. Admitted to the ER department for prostation, confusion and fever. Irrelevant past medical history and no recent change on his medication. Objectively, only a seemingly stiff neck was reported. Assuming a meningitis diagnosis, ceftriaxone, ampicillin and aciclovir were initiated empirically after culture tests were drawn from blood and urine (both negative). A cranial CT scan was also obtained (no alterations) and a lumbar puncture was performed – the cerebrospinal fluid (CSF) analysis revealed pleocytosis and proteinorrhachia. CSF culture tests were negative and so a viral encephalitis diagnosis was assumed. However, his clinical status worsened, with need for mechanical invasive ventilation.
Clinical Hypothesis: Epilepsy; Vasculitis; Autoimmune encephalitis.
Diagnostic Pathways: An electroencephalogram was performed that showed paroxystic activity in the left temporal area. However, the patient showed no response to anti-epileptic drugs. A cranial MRI was then obtained, but showed no changes suggestive of vasculitis. At that point, an autoimmune encephalitis seemed more likely and therapy with intravenous immunoglobulin and methylprednisolone pulses was started empirically. CT scan of the thorax, abdomen and pelvis showed no evidence of malignancy. An abnormal albumin coefficient was found in the CSF, but no other alteration pertaining to autoimmunity was reported. No further immunossupressive therapy was used due to multiple infection episodes, but gradual improvement with weaning off from the ventilator was achieved.
Discussion and Learning Points: This case shows the difficulty in achieving an autoimmune encephalitis diagnosis, but also the importance of considering this rare entity, as its sequelae can be overwhelming.

1368 / #EV1217

JUST SOME OLD BAD LUCK OR IS THIS AN OVERLAP?

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Case Description: 57 year-old woman followed in the Vascular Surgery outpatient unit for finger vasospasm in 2015. All the peripheral pulses were palpable and the doppler didn't show any changes. A primary Raynaud phenomenon was then assumed. Later in 2018, she developed a varicose ulcer in the right leg, with the doppler showing bilateral venous insufficiency at the great saphenous veins. A saphenectomy was subsequently successfully performed. In 2019, the patient was discharged from the outpatient setting. In 2020, a new referral was made for finger vasospasm recurrence.
Clinical Hypothesis: Primary Raynaud phenomenon; secondary Raynaud phenomenon.
Diagnostic Pathways: A triphasic primary Raynaud phenomenon was again assumed and cold eviction was suggested. However, the condition worsened with finger ulcers and the patient had to be admitted to be given intravenous prostaglandines. Objectively, the patient exhibited dactylitis, microstomy, telangiectasias and pitting scars. Analytically, positivity for ANA, ENA, anti-centromere, anti-dsDNA and antiphospholipid antibodies and complement consumption. A diagnosis of systemic lupus erythematosus/systemic sclerosis overlap was assumed and therapy with hydroxychloroquine, calcium channel blockers and acetylsalicylic acid was initiated, with consequent improvement.
Discussion and Learning Points: This case portrays a rare overlap, typically associated with great morbidity. On the other hand, it also illustrates one of the main problems when dealing with autoimmune diseases: the late diagnosis. Early stratification and therapy initiation do indeed prevent great morbidity and greatly improve the patients' quality of life.

1378 / #EV1218

WHEN RARITY MEETS THE EYE

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Case Description: 52 years old woman with sudden visual loss in 2015. Irrelevant past medical history and no new recent medication. The fundoscopy showed no significant changes. While orbital and cranial CT scans also showed no changes, the optical coherence tomography (OCT) findings were compatible with retinitis.
Clinical Hypothesis: Retinitis pigmentosa; autoimmune retinitis; paraneoplastic syndromes.
Diagnostic Pathways: Laboratory tests without alterations suggestive of infectious, inflammatory and autoimmune causes.

 DOI: 10.12890/2022_V9Sup1

HLA-C and HLA-DRB1 were negative, which made retinitis pigmentosa a more improbable diagnosis. Thoracic, abdominal and pelvic CT scans didn't reveal any malignancy. A possible inflammatory etiology was assumed and the patient received high-dose corticotherapy (80 mg/day of prednisolone), with subsequent improvement. However, after medication tapering, the symptoms recurred. Intravitreal ranibizumab and methylprednisolone were then initiated, again with improvement. Since then, multiple flares occurred and resulted in progressive loss of visual acuity, even though high-dose corticotherapy was maintained. In 2020, some pigment was found in the anterior crystalloid at the ocular biometry. At the time, it was decided to discuss the case with two specialized centres: as the corticotherapy induced some response, the diagnosis of autoimmune retinitis seemed more likely and, as such, imunossupressive therapy should be initiated. Methotrexate was then initiated, along with low-dose corticotherapy, without further flares and with OCT no longer showing activity.
Discussion and Learning Points: Autoimmune retinitis remains as a poorly understood and probably sub-diagnosed condition, whose prognosis is still unclear. More studies are needed to develop diagnostic criteria and suggest therapeutic schemes that can, at least, preserve some visual acuity.

1463 / #EV1219

PANCYTOPENIA AND FEVER IN A PATIENT WITH SERONEGATIVE ARTHRITIS AND TREATMENT WITH METHOTREXATE AND ETANERCEPT

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Case Description: A 62 year-old man with diabetes type 2, hypercholesterolemia, lumbar herniated discs and symmetric seronegative poliarthritis treated with methotrexate (15 mg once a week) and etanercept (50 mg once a week). He reported fever, nausea, vomiting and diarrhea for four days. Also two days ago he consulted in the emergency room for oral thrush and was treated with antifungals. At physical examination: Glasgow Coma Scale 15/15. BP 110/70 mmHg. 98% oxigen saturation. HR 123 bpm. Tª 38.3ºC. Oral thrush. No adenomegaly. Cardiorespiratory auscultation: rhythmic, no heart murmur, conserved lung ventilation. Pain on the palpation of the right abdomen. Conserved peristalsis.
Clinical Hypothesis: We present a immunosuppressed patient with febrile pancytopenia. Therefore we have to investigate the origin of the fever (probable infectious) and the pancytopenia's one (infectious, reactive because of the arthritis, or toxic due to the drugs).
Diagnostic Pathways: Blood test: Hb 9.3 g/dl, leukocytes 600/L (neutrophiles 200/L), plateles14000/L. No coagulopathy. ESR 80 mm. Glucose 319 mg/dl, RCP 185 mg/L, proteins 6g /dl, AST 74 U/L, ALT 100 U/L, GGT 49 U/L LDH 313 U/L. Blood cultures: 1st negative. 2 nd S epidermidis. Urine and feces culture: negative. Bone marrow biopsy: hypocellular material with representation of the red and white series and absence of megakaryocytes.
Discussion and Learning Points: We concluded that the patient had a pancytopenia of probable toxic origin because of the time it took him to recover beyond the completed broad-spectrum antimicrobial treatment regimen. We must consider parenteral nutrition in patients with candidiasis and oral mucositis with a low oral intake.

2627 / #EV1220

LOOK AT MY HANDS

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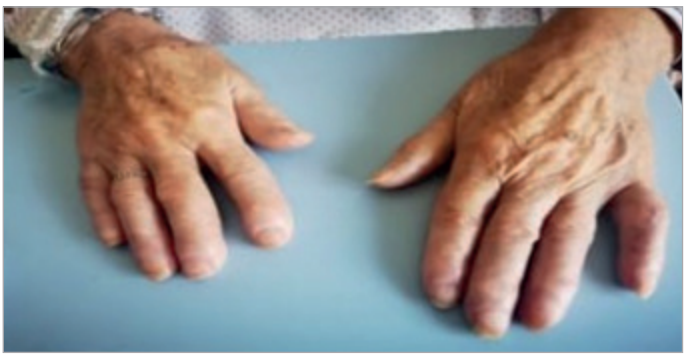
Case Description: This is the case of an 83-year-old woman with long-standing congestive heart failure (CHF) treated with chronic home oxygen therapy who consulted for dyspnea, orthopnea and episodes of paroxysmal nocturnal dyspnea of one week's evolution. She referred Raynaud's phenomenon for more than 8 years. Physical examination revealed the presence of "sausage fingers", sclerodactyly, calcinosis and generalized capillary telangiectasias (Figure).
Clinical Hypothesis: In view of this findings, the clinical hyothesis was systemic sclerosis with limited cutaneous involvement and severe precapillary pulmonary arterial hypertension (PAH) type 1.
Diagnostic Pathways: Autoimmunity tests were requested, obtaining positive antinuclear antibodies 1/640 and positive anticentromere antibodies. Transthoracic echocardiogram showed severely dilated right ventricle and depressed systolic function. Right cardiac catheterization was performed, obtaining an elevated mean pulmonary arterial pressure of 50 mmHg and a normal pulmonary capillary pressure of 11 mmHg. A high resolution computed tomography (HRCT) was performed and no fibrosis was observed. Spirometry and diffusion tests were inconclusive. The clinical hypothesis was confirmed. Treatment was started titrating doses up to ambrisentan 10 mg and tadalafil 40 mg, with discrete clinical improvement. The patient was discharged to home hospitalization with close monitoring, but with a torpid evolution and died after 3 months.
Discussion and Learning Points: This is a case of late diagnosis of PAH linked to systmeic sclerosis with rapid progression to an advanced functional class with need for oxygen therapy and important impact on quality of life. It is important to know about this entity in order to conduct early screening by means of different tools such as the DETECT algorithm.

 DOI: 10.12890/2022_V9Sup1



#EV1220 Figure 1.

907 / #EV1221

GIANT CELL ARTERITIS - EXTRACRANIAL PRESENTATION

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Case Description: A 63-year-old man with a known history of non-insulin-treated type 2 diabetes mellitus, arterial hypertension, obstructive sleep apnea syndrome and active smoking presents with a 6-week history of abdominal pain with dorsal radiation, anorexia and weight loss (5% of body weight in 1 month). Physical examination showed no significant changes besides a palpable and painful abdominal aorta.
Clinical Hypothesis: Initially, symptomatic abdominal aortic aneurysm and/or aortitis were the most likely diagnostic hypothesis.
Diagnostic Pathways: Blood tests showed increased ESR (65mm/h) and CRP (6.08mg/dL). ANA, ANCA, rheumatoid factor, TPHA, HIV, HBV, HCV and IGRA were negative. Serum protein eletrophoresis and serum immunoglobulins (including IgG1 to 4) were within the normal range. Abdominal and pelvic computed tomography revealed an abdominal aortic aneurysm with a maximum diameter of 33 mm, located 50 mm below the emergence of the renal arteries, with a length of 70 mm, associated with circumferential densification of the surrounding fat and aortoiliac atheromatous disease. With a suspicion of aortitis a PET-CT was performed, which revealed aortic wall thickening with increased metabolism (SUVmax 6.11), compatible with aortitis.
Discussion and Learning Points: The most probable diagnosis of giant cell arteritis was assumed and systemic corticotherapy, tocilizumab, anti-platelet therapy and statin were started, with a favorable outcome. Although giant cell arteritis most frequently presents with involvement of the cranial arteries, it is important to be aware of its extracranial form, namely with involvement of the abdominal aorta.

2078 / #EV1222

A RARE PRESENTATION OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: This is a case of a 30-year-old obese female patient that presented with a 1-month history of fever, associated with asthenia, anorexia, unintentional weight loss, myalgia and polyarthralgia without arthritis.
Clinical Hypothesis: The differential diagnosis is extensive including malignancies, chronic infections (such as HIV, tuberculosis) and rheumatologic diseases.
Diagnostic Pathways: She had anemia, lymphopenia, myositis, non-nephrotic proteinuria and polyserositis (pleural and pericardial effusion), as well as complement consumption, ANA 1/1280 and positive anti-dsDNA antibodies. A diagnosis of systemic lupus erythematosus (SLE) was made, and she was submitted to IV methylprednisolone pulse therapy followed by prednisolone 1 mg/kg/day, IV immunoglobulin and hydroxychloroquine. She evolved with respiratory failure needing invasive mechanical ventilation, as well as elevation of myocardial injury biomarkers and ST-T changes in the lateral wall, without chest pain. The echocardiogram had a large volume pericardial effusion, suggesting a communication between the left ventricle and the pericardial space, without hemodynamic instability. Thoracic CT showed a pseudoaneurysm and a large volume loculated hemopericardium. Coronary angiography was normal. She was submitted to pseudoaneurysm correction surgery, without complications. Now she is under hydroxychloroquine, prednisolone 2.5 mg/day and azathioprine 175 mg/day, without evidence of disease activity.
Discussion and Learning Points: We presented a case of SLE with multiorgan involvement, including a probable myopericarditis associated with pseudoaneurysm formation, cardiac rupture, and large volume hemopericardium. Cardiac involvement in SLE is common, mostly affecting the pericardium. Myocardial involvement is rare but potentially more severe. Treatment includes systemic glucocorticoids, immunosuppressants (cyclophosphamide or azathioprine) as well as intravenous immunoglobulin.

1531 / #EV1223

RS3PE - SEE ONE, LEARN ONE, TEACH ONE

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Case Description: A 70-year-old male presented in the ER with acute pain and swelling of his hands and feet for a few days, for which he had previously been treated with NSAIDs

 DOI: 10.12890/2022_V9Sup1

(indomethacin), without improvement. On examination he had an asymmetrical, additive, small-joints polyarthritis, accompanied by pitting edema, involving hands and feet, raising clinical suspicion for Remitting Seronegative Symmetrical Synovitis with Pitting Edema (RS3PE). A treatment with corticoids was initiated and the patient was referred to an Internal Medicinal Consultation. At his follow-up appointment, 3 weeks later, he reported substantial improvement of the edema and pain in his fingers and hands, and resolution of the complaints on his feet, supporting the diagnosis.
Clinical Hypothesis: RS3PE is a diagnosis of exclusion - it is a rare rheumatologic entity, more common amongst the elderly, which can easily be missed. It is characterized by an acute onset of polyarthritis with pitting edema; an inflammatory reaction, in the absence of rheumatoid arthritis biomarkers; radiologic findings compatible with synovitis; and a rapid response to corticosteroids.
Diagnostic Pathways: Laboratory results showed increased inflammatory parameters, infections were ruled out and immunologic study (ANA, ANCA; RF, anti-CCP) came back empty. RS3PE can present as a paraneoplastic phenomenon, therefore the patient underwent a thorough tumor screening, with unremarkable results.
Discussion and Learning Points: Despite being a rare diagnosis, the authors would like to emphasize the importance of acknowledging RS3PE as a differential diagnosis, since recognizing it can avoid costly investigation or ineffective therapy, whereas correct diagnosis and treatment often leads to great relief and prevents comorbidity.

2275 / #EV1224

A CASE OF MULTICENTRIC RETICULOHISTIOCYTOSIS (MRH): A DIAGNOSTIC CHALLENGE

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Case Description: We report a case of a 62-year-old man, with hypertension and a chronic kidney disease, presenting with a prolonged history of erosive arthritis on the large joints, predominantly on hips and elbows. Several years after this presentation, he developed skin lesions consisting of red and yellow papules and nodules on the hands, trunk and face.
Clinical Hypothesis: A laboratory examination was performed to rule out an autoimmune or metabolic condition and a computed tomography was performed to rule out occult malignancies causing a paraneoplastic syndrome.
Diagnostic Pathways: A skin biopsy showed dermal histiocytic infiltrates compatible with multicentric reticulohistiocytosis. The patient refused to receive the proposed treatment.
Discussion and Learning Points: MRH is a rare, non-Langerhans cell histiocytosis with cutaneous and systemic features. It typically develops in the fifth to sixth decades of life, more frequently in women (3:1). MRH usually presents with a severe erosive arthropathy (arthritis mutilans) with a rapid progression, commonly involving the elbows, wrists, hips, shoulders and interphalangeal joints. Cutaneous findings arise an average of 3 years after the arhritis, presenting with pruritic reddish, brown or yelow papulonodules on the face, scalp, back and hands. These findings can mimic rheumatoid nodules, gout or Gottron papules. Furthemore, if arthritic symtoms predominate, MRH must be distinguished from other autoinmmune arthritis. Histopathologic features may distinguish MRH from such entities. MRH is associated with malignant conditions. There are no well-defined treatment algorithms for MRH due to the rarity of this condition; current management includes the use of nonsteroidal anti-inflammatory drugs and inmunosuppressants like oral glucocorticoids, cyclophosphamide, methotrexate and anti-TNF agents.

2026 / #EV1225

PULMONARY NODULES IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Case Description: 64 years-old male, smoker, diagnosed in 2007 with seropositive rheumatoid arthritis with subcutaneous nodulosis in hands elbows and knews. He was on methotrexate and hydroxychloroquine with controlled articular disease. In August 2020, he was admitted in the emergency department because of cough and haemoptysis with a month of evolution. At physical examination, he had a general good condition, apyrexia, peripheral oxygen saturation of 96%, while breathing room air, and pulmonary auscultation without changes.
Clinical Hypothesis: Infectious disease, including pulmonary tuberculosis Neoplasic condition Pulmonary Rheumatoid Nodules
Diagnostic Pathways: Laboratory tests just showed a C Reactive Protein (PCR) elevation, no other changes Chest X-ray revealed a nodular lesion in the right lung Chest computed tomography scan identified several pulmonary nodules in both lungs and a right hydropneumothorax Interferon gamma realease assay (IGRA) was negative Sputum tests were negative for bacterial, mycobacterial and fungal species Histology of pulmonary nodule showed a central area of fibrinoid necrosis surrounded by palisading macrophages and then lymphocytes, that were compatible with rheumatoid nodules.
Discussion and Learning Points: This case illustrates pulmonary involvement by rheumatoid nodules in a patient with rheumatoid arthritis. The presence of rheumatoid nodules in the lung is rare, but it can occur specially in patients medicated with methotrexate

 DOI: 10.12890/2022_V9Sup1

and those with extensive cutaneous nodulosis. This entity should be considered in patients with rheumatoid arthritis because it has therapeutic implications, but the infections and neoplasic conditions should be excluded.

2342 / #EV1226

ANTERIOR ISCHEMIC OPTIC NEUROPATHY IN A PATIENT WITH GIANT CELL ARTERITIS.

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Case Description: Female, 75 years old, with a history of hypertension, dyslipidemia and osteoporosis. Admitted to the emergency department with temporal headache and chewing pain for 2 months. He also referred a progressive decrease in bilateral visual acuity, more evident in the right eye and with worsening in the last 2 days. She denied fever or other symptoms. Physical examination revealed reduced visual field in the left eye and absence of vision in the right eye. Basic ophthalmological examination revealed right eye with shadows, eye fundus with edema of the papilla.
Clinical Hypothesis: Giant cell arteritis, polyarteritis nodosa, arterial hypertension, arteriosclerosis, glaucoma.
Diagnostic Pathways: Analyzes with platelets of 512.0 x10^9/L, sedimentation rate of 79.0 mm and C-reactive protein of 9.04 mg/dl. Temporal artery Doppler: "Halo sign in the branches of the middle temporal arteries, with decreased flow and areas of stenosis. Exam compatible with giant cell arteritis". She was treated with high doses of steroids, and there was an improvement in her neurological symptoms. However, there was no reversal of visual loss.
Discussion and Learning Points: Anterior ischemic optic neuropathy (AION) represents an acute ischemic disorder of the optic nerve and may lead to severe visual loss. Clinically it is classified into two groups: arteritic (A-AION) caused by giant cell arteritis and non-arteritic (NA-AION). The more serious character of A-AION in relation to NA-AION has been emphasized by several authors who consider it as a medical emergency. This case highlights the importance of early differential diagnosis, since neuropathy of arteritic origin, when not treated quickly and adequately, inevitably leads to blindness.

711 / #EV1227

IT'S NEVER LUPUS, UNTIL IT IS

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Case Description: 57-year-old black female, with no relevant history, was admitted to the hospital due to a 1-week evolution of fever, pleuritic pain, productive cough, dyspnoea, and tiredness for small efforts. The presence of a Kayser-Fleischer ring was highlighted. Chest CT showed multiple adenomegaly and bilateral pleural effusion. She underwent thoracentesis, with pleural fluid compatible with exudate (mononuclear predominance), without neoplastic cells and negative cultural examination. Pleural biopsies showed nonspecific inflammatory changes. Transthoracic echocardiogram revealed a circumferential pericardial effusion, without hemodynamic repercussions. Laboratory tests revealed polyclonal hypergammaglobulinemia, increased sedimentation rate, B2-microglobulin and serum copper, with normal ceruloplasmin and urinary copper. Liver biopsy showed chronic hepatitis, with mild/focal activity, of probable autoimmune aetiology, favouring the diagnosis of lupus hepatitis; the investigation of hemosiderin pigment and copper deposits was negative.
Clinical Hypothesis: Considering the unexplained fever, polyserositis and liver histology findings, we admitted the hypothesis of an autoimmune disease and started corticotherapy, with clinical improvement.
Diagnostic Pathways: The autoimmune study revealed positivity for ANA (titter 1/640) and Anti-SSA/Ro, Anti-SSB/La, Anti-Sm, Anti-RNP, Anti-Ro-52, Anti-Jo1 and Anti-LC1 Antibodies. Following the EULAR 2019 classification criteria, the patient scored 13, favouring the diagnosis of systemic lupus erythematosus (SLE).
Discussion and Learning Points: SLE is a chronic autoimmune disease of unknown aetiology that can virtually affect any organ. Clinical heterogeneity and the absence of pathognomonic tests make it a challenging diagnose. This case highlights the importance of considering the possible forms of atypical presentation of SLE, namely the presence of Kayser-Fleischer rings, which did not translate the diagnosis of Wilson's Disease, and autoimmune hepatitis, rare in SLE.

1143 / #EV1228

GIANT CELL ARTHRITIS (GCA) AS A CAUSE OF DISABLING ASTHENIA

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Case Description: 71-year-old man with history of Heart Failure (HF) – NYHA II. He was admitted for asthenia, headache and

 DOI: 10.12890/2022_V9Sup1

dyspnea. On physical examination he presented basal crackles on pulmonary auscultation and a skin lesion on the right lower limb. He started antibiothic with ceftriaxone and clindamycin. His fatigue worsened, becoming increasingly dependent. His inflammatory parameters remained high. When he started steroid treatment, he reported asthenia and headache improvement and his inflammatory parameters normalized.
Clinical Hypothesis: Descompensated HF due to infection and anemia Giant Cell Arthritis
Diagnostic Pathways: Laboratory tests: anemia, CRP 20mg/dL and SR 120mm Endoscopic study without changes Transcranial ultrasound: arteritic process of the right superficial temporal artery
Discussion and Learning Points: GCA is the most common large vessel vasculitis in the elderly. It is manifested by headache, asthenia and increased inflammatory parameters. In this case, decompensated HF due to infection and anemia was admitted initially, but the worsening of the functional status after optimized therapy and transfusion made us think about other entities. Corticosteroid therapy had a great impact on the patient's quality of life, with significant improvement in asthenia and functional status.

1635 / #EV1229

EOSINOPHILIC ESOPHAGITIS - AN INCREASINGLY IMPORTANT CAUSE OF DYSPHAGIA IN YOUNG ADULTS

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Case Description: A 27-year-old male with symptoms of heartburn, dysphagia and food impaction (mainly meat) with progressive worsening for six months and weight loss. There were no changes in the physical examination. He had a history of allergic rhinoconjunctivitis and functional abdominal pain (FAP).
Clinical Hypothesis: Due to the patient's age and symptoms, the differential diagnoses considered were gastroesophageal reflux disease, infectious esophagitis, functional dysphagia and eosinophilic esophagitis.
Diagnostic Pathways: Laboratory tests only demonstrated eosinophilia. Thoracic, abdominal, pelvic and neck CT-scan had no significant alterations; the endoscopy showed linear furrows and signs of gastritis and biopsies showed marked intraepithelial inflammatory infiltrate rich in eosinophils (> 80/hpf). An esophageal transit test was performed and had no signs of stenosis.
Discussion and Learning Points: Eosinophilic esophagitis (EoE) is a chronic immune-mediated disorder characterized by symptoms related to esophageal dysfunction (solid food dysphagia, food bolus impaction, heartburn and chest pain) and eosinophilic histologic inflammation (15 or more/high-power field (hpf)). Endoscopic features include linear furrows, white plaques and concentric rings. Treatment involves proton pump inhibitors (PPI), elimination diets, and topical corticosteroids. The biopsy results established the diagnosis of EoE in our patient. Tests for food allergies were carried out and a customized diet was started, together with PPI and inhaled fluticasone. There was significant clinical improvement and follow-up was kept in Gastroenterology, Immuno-allergy and Internal Medicine consultations. EoE is growing in prevalence and must be considered among differential diagnoses of dysphagia in young adults. It is a chronic disease that requires chronic therapy to improve clinical symptoms and also prevent disease progression and complications.

1715 / #EV1230

COLD AGGLUTININ SYNDROME - AN UNUSUAL CAUSE OF ANEMIA IN ACUTE DISEASES

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Case Description: An 86-year-old male admitted for asthenia, disorientation, fever and dysuria. He had refractory anemia without signs of blood loss. Pale skin, cold extremities with acrocyanosis and dark urine were observed in physical examination.
Clinical Hypothesis: Autoimmune hemolytic anemia (AIHA) mediated by cold agglutinins can be divided into cold agglutinin disease (CAD) and secondary cold agglutinin syndrome (CAS). CAD is a clonal lymphoproliferative disorder that translates to an unusual form of cold AIHA in which a complement-mediated process leads to hemolysis. In CAS, a similar process occurs secondary to another distinct clinical disease. Both should be considered in the differential diagnosis of unexplained refractory anemia presenting with cold-induced symptoms.
Diagnostic Pathways: Laboratory tests: Increase in inflammatory parameters, normal renal function, leukocyturia and nitrituria in the urine specimen; Hb 7.0 g/dL, VGM 100 fL, HGM 34.9 pg, reticulocytes $89X10^9$/L, no folic acid or vitamin B12 deficiency. Peripheral blood smear showed red cell agglutination. Elevated LDH, decreased haptoglobin and positive hemosiderin and Coombs tests. Bone marrow aspiration and biopsy had no significant changes. Paroxysmal nocturnal hemoglobinuria clone was not observed. Donath-Landsteiner, cryoglobulins, immunological and virological tests were negative. Cold agglutinin titer was of 1/2048 at 4°C.
Discussion and Learning Points: Antibiotic therapy was initiated for urinary tract infection, thermal protection used and intravenous fluids kept warm. Hemoglobin increased to a stable value of 9.8 g/dL. Unfortunately, in spite of effective treatments, the patient passed away. In conclusion, although uncommon, CAS should be considered a differential diagnosis in the study of anemia, especially when there are medical signs that make us suspect it.

 DOI: 10.12890/2022_V9Sup1

187 / #EV1231

HYPOKALEMIC PERIODIC PARALYSIS AS INITIAL PRESENTATION OF SJOGREN'S SYNDROME : A DIAGNOSTIC CHALLENGE

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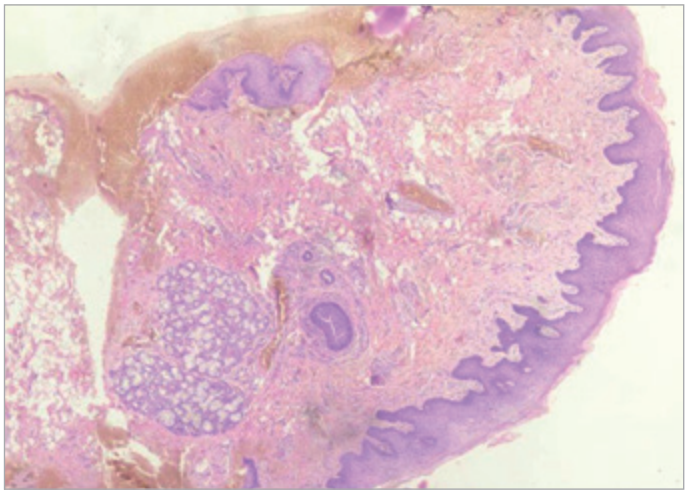
Case Description: A 35 year-old female presented with acute onset weakness, involving bilateral lower limbs which progressed to upper limbs over next 1 hour. She had multiple similar episodes in the last 6 years which relieved after taking potassium-containing syrup. Nervous system examination revealed flaccid tone with decreased power in all four limbs with intact sensation in all dermatomes and absent deep tendon reflexes.

Clinical Hypothesis: On the basis of history and examination findings, a syndromic diagnosis of hypokalemic periodic paralysis (HPP) was made which was hypothesized to be due to the following conditions: 1) Familial HPP, 2) Thyrotoxicosis, 3) Renal tubular acidosis, 4) Gastroenteritis.

Diagnostic Pathways: Patient was evaluated for acute pure motor flaccid quadriparesis. Blood gas analysis was suggestive of normal anion gap metabolic acidosis with severe hypokalemia. Her urine was alkaline with positive urine anion gap, so renal tubular acidosis (RTA) type-1 was diagnosed. A review of patient's history also revealed presence of arthralgia involving both small and large joints since 2 years. Antinuclear antibody was positive (3+) speckled pattern and SS-A, and SS-B antibodies detected. Minor salivary gland biopsy revealed mild inflammatory infiltrates without salivary gland atrophy (Figure). A diagnosis of Sjogren's syndrome was made.

Discussion and Learning Points: Primary Sjogren's syndrome (SS) is characterised by cardinal symptoms of keratoconjunctivitis sicca, xerostomia and parotid gland swelling. Renal involvement in the form of interstitial nephritis is common, followed by RTA. Though HPP is reported in SS, it rarely is the sole manifestation. Thus, it is emphasized to perform a detailed algorithmic workup of every patient with HPP to ascertain the underlying disorder.



#EV1231 Figure 1.

2478 / #EV1232

SILICOSIS AND AUTOINMUNE SYSTEMIC DISEASES

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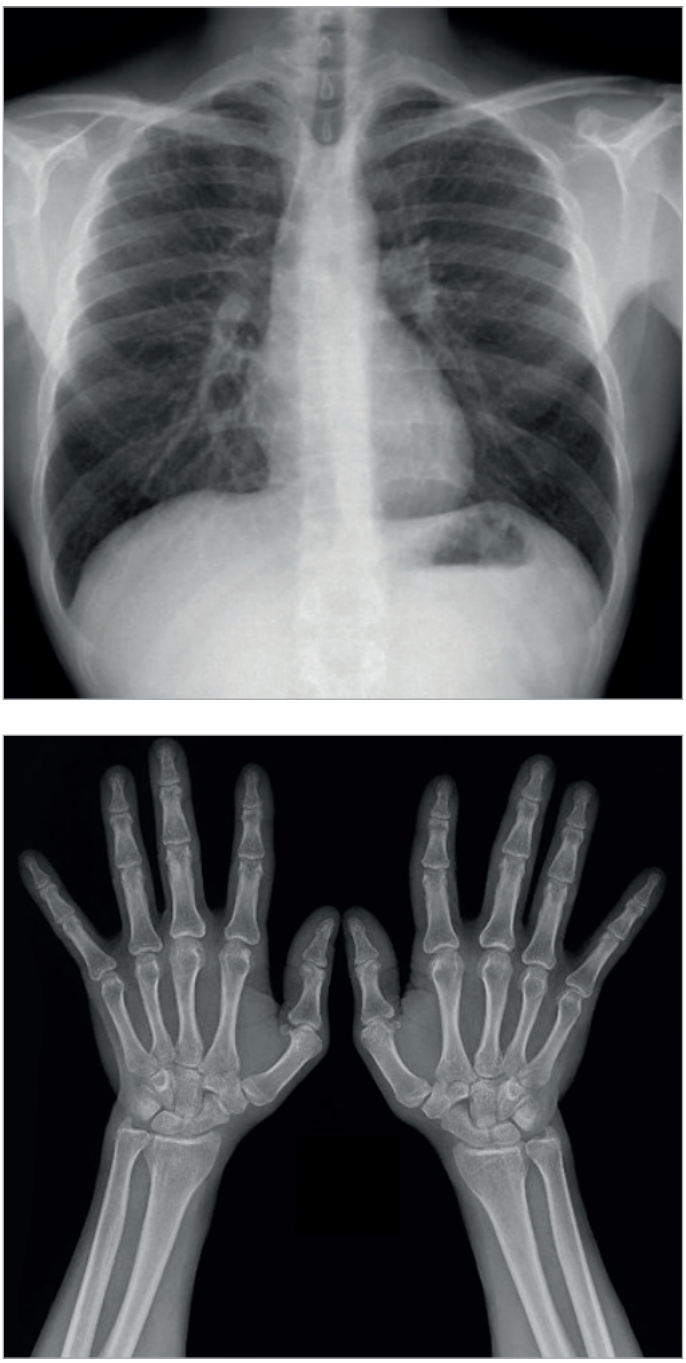
Case Description: A 49 years marble-worker male diagnosed with chronic silicosis was attended by generalized polyarthralgia and arthritis in hands and feet. Achilles enthesitis and puffy fingers were also present. To the examination, psoriasis skin lesion in the scalp was detected.

Clinical Hypothesis: Infectious cases: *Mycoplasma pneumoniae* infection, Reiter syndrome Autoinmune causes: Rheumatoid arthritis, Psoriasis, cryoglubulinemia.

Diagnostic Pathways: Blood test including autoimmunity (ANA, ANCA; Rheumatoid factor) and acute phase reactants (C-reactive protein and Globular sedimentation rate) were normal. Chest x-ray showed interstitial reticolunodular opacities in superior lobes. Inflammatory activity of the carpus and Achilles enthesitis was observed with high resolution ultrasounds of hands and feet. Acording to CASPAR criteria the diagnose of psoriatic arthritis was made (Figure).

Discussion and Learning Points: Silicosis is associated with a higher risk of developing autoimmune diseases. Silica particles inhalation triggers lymphocytes B and T response which is considered the origen of the autoimmunity. The presence of these diseases worsen the prognosis of silicosis.

DOI: 10.12890/2022_V9Sup1



#EV1232 Figure 1.

2702 / #EV1233

DYSNEA STUDY: BEYOND HEART FAILURE

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Case Description: An 83-year-old woman with no medical history consulted due to 3-moths progressive dyspnea. Severe left ventricular dysfunction was observed in ultrasound and diuretic treatment was started. After 3 weeks she started with shortness of breath with minimal exertion, intense asthenia, edema in lower limbs, myalgia, and weakness in both waists. She didn't report jaw claudication, headache, upper limb weakness, arthritis nor skin lessions.

Clinical Hypothesis: Different test were performed: LVEF of 6% calculated on cardio-MRI with catheterization without angiographic lesions, positive immunological study for Anti-PL7 (anti-threonyl tRNA synthetase) with HRCT without lung disease, normal CPK and both a muscle MRI and an electromyogram of the lower limbs with findings consistent with inflammatory myopathy. Serology and blood cultures were negative.

Diagnostic Pathways: The patient was diagnosed Anti-PL7 antisynthetase syndrome and corticosteroid boluses were started. As corticosteroid-sparing treatment we decided to start mycophenolate. The patient presented a clear favorable response, with clinical improvement and decrease in acute phase reactants. In subsequent check-ups, LVEF increased to 65%.

Discussion and Learning Points: Antisynthetase syndrome (ASyS) is an autoimmune disease that manifests clinically by the classic triad of: interstitial lung disease (ILD)0, myositis, and arthritis. Anti-Jo-1 is the most common anti-synthetase antibody and is the most consistent with the classic presentation. Anti-PL7, anti-PL12, and anti-EJ are associated with ILD and myositis. Anti-OJ is the least detectable by commercial myositis panels and may have a more severe clinical expression. Treatment for ASyS is challenging because there are no FDA-approved medications for ASyS and very few comparative studies of these therapies.

991 / #EV1234

ANTI-MDA5 DERMATOMYOSITIS: AN INTERESTING CASE!

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Case Description: Male, 46 year-old with history of hypertension, tyroid nodules and an hereditary angioedema in treatment with 5 mg of prednisolone daily. In the following of the patient, he started to develop erythematous papules in the back of the hands and in the elbows symmetrically, and a erithema of the body and periorbital. He also started to refere proximal and symmetrical muscle weakness of the legs and fatigue. A suspetion of a inflammatory myopathy was rised and therefore complementary study was perfomed. In the blood panel there were raised levels of CK, aldolase,transaminases, DHL, VS and ferritin. The autoimunity was positive for MDA5, CN-1A e Ro52. The electromyograph didn´t reveal polimiopathy and finally the muscular electromagnetic ressonance showed a symmetrical diffuse muscle edema of the thighs, muscle atrophy and fat infiltration. The rest of the exams were normal. The computed axial tomography of the thorax and abdomen revealed pulmonary fibrosis and axilar and inguinal adenopathies.

 DOI: 10.12890/2022_V9Sup1

Clinical Hypothesis: Anti-MDA5 dermatomyositis.
Diagnostic Pathways: Diagnoses of anti-MDA5 Dermatomyositis was made, he had 4 criteria according to the Bohan e Peter and 11,7 points in the EULAR/ACR and the muscle biopsy showed a myopathic inflamatory pattern.
Discussion and Learning Points: The initial presence of gottron papules raised the hypothesis of an inflammatory myopathy. Highlight the positivity of the CN-1A antibodies a early inclusion body myopathy marker even though there was no symptoms, and the presence of Ro52 antibodies associated with severity and intersticial pulmonary disease. Concluding the diagnosis was correctly, excluding others causes. Although there were fatores of bad prognosis induction was achieved.

551 / #EV1235

A DRAMATIC DROP

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Case Description: We describe the case of a 60 year-old man with histoty of arterial hypertension and gouthy arthritis not medicated by self suspension. In addition to the therapeutic nin compliance, he has admitted a non regulated diet. Observed in the emergency department for syncope, highlighting on objetive examination the presence of exuberant gouty tophi on the hands and fett, some with exudation and marked functional limitation. Analytically with acid uric 15.2 mg/dL. He mentioned several episodes of pain and swelling of the hands, self-limited, and for 6 month the not eat by his own hand. He was medicated with allopurinol, colchicine and guided to a Rheumatology consultation, wich he lacked.
Clinical Hypothesis: Tophaceous drop.
Diagnostic Pathways: Objective examination.
Discussion and Learning Points: The importance of patient sensibilization.

2651 / #EV1236

MPO-ANCA-ASSOCIATED VASCULITIS PRESENTING AS FEVER OF UNKNOWN ORIGIN

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Case Description: ANCA-associated vasculitis (AAV) is a rare autoimmune disease and clinical presentation can vary widely, both in disease severity and spectrum of organ involvement.
Clinical Hypothesis: A 60-year-old male with prior bronchiectasis and alcohol and tobacco consumption, presented with a 3-weeks' duration of persistent fever, cough, dyspnea, tiredness and myalgias, despite a 14 days' course of cefuroxime and azytromicin. On physical exam he was feverish and blood work revealed neutrophilic leukocytosis, CRP 27 mg/dL, PCT 0.35 ng/mL, elevated d-dimer, ESR 53 mm/1st h, normal renal function, and no hypoxemia nor radiologic opacities. Thoracic CT showed infectious/inflammatory alterations, inconclusive to pulmonary embolism, posteriorly confirmed with pulmonary ventilation/perfusion scintigraphy. He started piperacillin/tazobactam for suspected bronchiectasis superinfection with daily fever maintenance. Bronchofibroscopy described inflammatory signs with cytology negative for neoplastic cells, no BAAR, and biopsies with nonspecific inflammatory infiltrate. The septic screening (blood, urine, spuctum and bronchoalveolar lavage cultures and myeloculture) and searching for CMV, EBV, HCV, HBV, HIV, *S. pneumoniae*, *L. pneumophila*, *M. pneumoniae*, *Coxiella* and *Brucella* were negative. Transthoracic echocardiogram excluded vegetations and abdomin-pelvic CT scan and positron emission tomography revealed no solid lesions. There was no asthma, prior medication or ear-nose-throat involvement. The autoimmune panel showed negative antinuclear antibodies, no complement consumption, but positive anti-neutrophil cytoplasmic antibodies MPO of >134U/mL.
Diagnostic Pathways: Diagnosis of vasculitis was set, and patient started treatment with prednisolone (1 mg/Kg/day) with improvement of fever and myalgias. He was referred to ambulatory clinics and is taking cyclophosphamide- 0.75 mg/Kg/month.
Discussion and Learning Points: In a patient presenting with fever of unknown origin, AAV should be considered in the differential diagnosis.

2443 / #EV1237

PERSISTENT FEVER IN A MIDDLE-AGED MAN

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Case Description: We present a 54 year old male with no previous history reporting a 3 week fever (up to 38.3ºC) and no other symptoms. He had already received a one week antibiotic course. The initial exam was unremarkable except for an aortic systolic murmur. The laboratory tests showed elevation of acute phase proteins and neutrophilic leucocytosis. The basic serologic screening for autoinmune disease came back negative.
Clinical Hypothesis: After ruling out common sources of infection and considering the findings he was derived for an outpatient transthoracic echocardiogram to screen for infective endocarditis (IE).
Diagnostic Pathways: It showed a bycuspid aortic valve with a possible vegetation. A transesophageal echocardiogram was performed finding a filiform process on the aortic surface of the valve. Blood cultures were drawn before starting empyrical antibiotics for possible IE (fulfilling 1 major and 2 minor Duke´s criteria). Nevertheless the fever and analytical alterations

 DOI: 10.12890/2022_V9Sup1

persisted. Blood cultures were negative, and so were the serologic tests for blood-culture-negative IE causes. Having reasonably ruled out an infectious cause a PET-CT was performed, showing diffuse aortitis. Aditional tests including ANCA and IgG4 levels were all negative.

Discussion and Learning Points: He was started on inmunosupressants and rapidly improved, being discharged with a glucocorticoid tapering. He was diagnosed with clinically isolated aortitis, although he might later develop symptoms pointing to a specific entity such as giant cell arteritis. This case underlines the relevance of reconsidering the initial diagnosis when confronted with a lack of response to treatment and demonstrates the value of PET-CT in the study of fever of unknown origin.

403 / #EV1238

RECURRENT ABDOMINAL PAIN: DO NOT FORGET ACQUIRED ANGIOEDEMA!

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Case Description: First case. A 72-years old man was admitted because of abdominal pain and non-
portal hypertension ascites. The rest physical examination and baseline laboratory work-up were
unrevealing. The second patient was a 45-years male who admitted because of recurrent episodes ofabdominal pain dating back for 12-months along with a past history of swelling of the tongue, lips, and face. Physical examination revealed hepatosplenomegaly. Exploratory laparotomy revealed only non-portal hypertension ascites with negative cytology in both patients. In addition, CT scan of the chest and the abdomen and gastrointestinal endoscopy were negative in both patients.

Clinical Hypothesis: Differential diagnosis included rare causes of abdominal pain such as acquired angioedema (AAE). Complement studies revealed undetectable serum C4, and low C1q and C1-inhibitor serum levels which were compatible with AAE.

Diagnostic Pathways: As lymphoproliferative disorders predispose to AAE, a bone marrow biopsy was performed. In the first patient, both biopsy and flow-cytometric immunophenotyping of bone marrow aspiration showed the presence of clonal plasma cells, compatible with multiple myeloma.

In the second patient, the findings were compatible with the presence of splenic marginal zonelymphoma.

Discussion and Learning Points: Intestinal angioedema as a component of AAE is less commonly encountered by physicians than angioedema of upper airways and therefore, it is frequentlyunderrecognized. Our case-study emphasizes the importance of recognizing this entity as underlying
hematologic malignancy is the most common cause of AEE suggesting a thorough investigation even in patients with unexplained isolated gastrointestinal symptoms.

1653 / #EV1239

STUDY OF GENETIC POLYMORPHISM OF MATRIX METALLOPROTEINASES -2, -3 AND -13 IN PATIENTS WITH OSTEOARTHRITIS IN COMBINATION WITH HEMODYNAMICALLY SIGNIFICANT CORONARY ATHEROSCLEROSIS

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Background and Aims: The combination of osteoarthritis (OA) with cardiovascular diseases includes some of common pathogenetic mechanisms (proinflammatory cytokines, matrix metalloproteases (MMPs)). To determine the effect of genetic polymorphisms MMP-2, -3, -13 on the development of hemodynamically significant coronary atherosclerosis in patients with primary OA.

Methods: The study presents the results of examination of 106 patients with primary OA who corresponded the inclusion / exclusion criteria. The groups of patients were comparable in age and sex. Laboratory and instrumental methods, as well as molecular genetic study of the genotypes MMP-2 (rs2285053), MMP-3 (rs3025058), MMP-13 (rs2252070) were used. Statistical processing of the obtained data was performed using the Statistica 10.0 package (StatSoft, USA).

Results: In the examined data of the studied groups there were no difference between the genotypes of the MMP-2, -3 genes. It was found that the carriage of homozygous TT polymorphism of the MMP-13 gene (rs2252070 T / C) is at 1.9 times higher in patients without verified coronary atherosclerosis in comparison with patients with primary OA and coronary atherosclerosis, where the prevalence of this genotype was 31.81% (p = 0.006). The heterozygous variant of the T/C genotype was 1.8 times more common in patients with verified coronary atherosclerosis (59.1%), than in patients without coronary atherosclerosis. Carriage of the MMP-13 T/C genotype increases the risk of developing coronary atherosclerosis by 1.8 times (p = 0.01).

Conclusions: Thus, in patients with primary OA heterozygous variant of the MMP-13 polymorphism (rs2252070 T/C) increases the risk of developing significant atherosclerotic lesions of the coronary arteries by 1.8 times.

 DOI: 10.12890/2022_V9Sup1

639 / #EV1240

A CASE OF PULMONARY HYPERTENSION IN A PATIENT WITH A LONG HISTORY OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: 55-year-old woman, systemic lupus erythematosus (SLE) with Raynaud's syndrome was diagnosed in 1991. For 28 years, she took methylprednisolone 6 mg, without a doctor's supervision. She was hospitalized with right bundle branch block with dyspnoe, pain in the chest.

Clinical Hypothesis: Based on acuity of the symptoms, thromboembolism was assumed.

Diagnostic Pathways: High PH (66 mm Hg) was detected. Thromboembolism is excluded. The antinuclear factor - 1:10240. After increasing the dose of methylprednisolone to 24 mg/day dyspnoe and pain regressed for three days. PH decreased (27 mm Hg). With computer tomography (CT), reticular changes, fibrous strands were detected after 2 weeks. After 10 months on CT - "frosted glass" foci were added to the previous manifestations, after 29 months - an increase in the area of reticular changes. After 26 months - PH 31 mmHg.

Discussion and Learning Points: The combination of high-titer antinuclear factor and a long history of SLE made it possible to think of PH as a variant of lung damage in this disease. At the same time, the rapid regression of dyspnoe, pain and SDLA against the background of an increase in the dose of methylprednisolone in the presence of signs of interstitial lung damage suggests that the cause of an episode of high PH could be Raynaud's pulmonary syndrome, in which the same changes occur in the vessels of the lungs as in the vessels of the fingers. This episode of PH should be regarded as a marker of the onset of active lung lesion of SLE.

1151 / #EV1241

BONE MARROW SUPPRESSION: TWO CASES OF METHOTREXATE-INDUCED PANCYTOPENIA

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Case Description: We present two cases of pancytopenia induced by methotrexate (MTX) therapy. An 81-year-old man came to the emergency department (ED) complaining of asthenia, oral cavity ulcers, epistaxis, and aqueous diarrhea. Physical examination showed a cutaneous pallor and oral mucositis with fungal superinfection. He had a past medical history of seronegative rheumatoid arthritis (treated with 25mgsc/week of MTX) and chronic kidney disease (CKD). He had pancytopenia and elevated C-reactive protein. A 60-year-old woman was admitted to hospital care after pancytopenia was found during a Rheumatology consultation. She had a medical history of psoriatic arthritis treated with MTX (oral route; 25 mg/week) and leflunomide (20 mg/daily). She complained of constitutional symptoms for several weeks and had macrocytosis with dysplastic and hypersegmented neutrophils.

Clinical Hypothesis: Methotrexate-induced pancytopenia.

Diagnostic Pathways: Both patients were taking MTX according to their prescribed regime with folic acid supplementation. All other possible causes of pancytopenia came back negative. Normal blood cell counts were achieved with the suspension of MTX and medical therapy.

Discussion and Learning Points: Methotrexate is a disease-modifying anti-rheumatic drug. Its toxicity is dose and time-dependent. Myelosuppression is a rare but lethal complication, even in low-dose treatments. Risk factors include age, renal function, and nutritional status. Bone marrow toxicity due to MTX is more common in females and older patients. Clinical and laboratory monitoring is essential to an early recognition of pancytopenia. The benefits of MTX, even at low dosages, should be examined in older patients, especially if CKD is present.

DOI: 10.12890/2022_V9Sup1

887 / #EV1242

LARGE VESSEL VASCULITIS AND Q FEVER

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Case Description: A 60-year-old man was admitted to the emergency department due to right posterior thoracalgia and intermittent fever for one month. He also presented with night sweats, weight loss of 16 kg in 2 months and fatigue. General examination was unremarkable. Lymphadenopathy or organomegaly weren´t noted. Blood test revealed microcytic anemia and C-reactive protein of 13.09 mg/dL. He already had an endoscopic study and prostatic ultrasound without significant changes and thoracic and abdominal CT scan that only revealed a lung calcified granuloma.

Clinical Hypothesis: Tuberculosis, other chronic/subacute infection, cancer, auto-immune disease.

Diagnostic Pathways: Blood and sputum culture were negative, inclusive for mycobacteria. Blood tests for auto-immune diseases (ANA, ANCA, RF) were negative. Serology for viral hepatitis, HIV, syphilis, *Borrelia*, Rickettsia, Brucella, CMV, EBV, toxoplamosis, *Bartonella*, *Legionella* were also negative. *Coxiella burnetii* was positive, with IgG phase II antibodies. Interferon-gamma release assay was positive. He performed a PET scan that showed vasculitis in the ascending and descending thoracic aorta, aortic arch, proximal portion of abdominal aorta, subclavian and carotid arteries. A transesophageal echocardiogram was performed, excluding endocarditis.

Discussion and Learning Points: Acute Q fever with large vessel vasculitis was diagnosed, and treatment with doxycycline and steroids was started, plus tuberculosis reactivation prophylaxis with isoniazid. Despite no endocarditis or valve disease, we decided to add hydroxychloroquine. There are only three case reports of large vessel vasculitis associated with Q fever reported, and there are no treatment or follow-up guidelines. PET scan can be a valuable diagnostic tool for fever of unknown origin.

2116 / #EV1243

DIAGNOSTIC CHALLENGE

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Case Description: A 65 year old woman presented in the emergency department with hypersweating, nausea, vomiting, asthenia, anorexia and weight loss of 11kg, with 2 months of evolution, was admitted for clinical study.

Clinical Hypothesis: Sarcoidosis.

Diagnostic Pathways: Analytically she had hemoglobin 12.6 g/dL; urea 125.7 mg/dL; creatinine 2.8 mg/dL; uric acid 13.1 mg/dL; calcium 16.6 mg/dL; PTH 7.00 pg/ml; Vitamin D 10.70 ng/ml; B2-microglobulin 4800 µg/L; Total proteins 7.6 g/dL; Protein electrophoresis without monoclonal peak. During hospitalization, she had raised, confluent, non-pruritic erythematous lesions on her right knee and left elbow. Thoracoabdominopelvic CT revealed multiple mediastinal adenopathies and hilar regions and multiple micronodules in the upper 1 / 3 of the right lung parenchyma suspected of granulomatous or neoplastic disease. Positron emission tomography was performed and showed "metabolically active disease in the lungs, in the mediastinal-hilar lymph node, spleen, osteomedullary and possibly liver, aspects that may correspond to inflammatory/granulomatous disease". Negative IGRA and histoplasmosis serology. Skin, lung and bone biopsies revealed non-necrotizing granulomas compatible with sarcoidosis.

Discussion and Learning Points: Sarcoidosis is a multisystem inflammatory disease of unknown etiology, characterized by the formation of non-necrotizing granulomas. It mostly affects the lung, but it can affect other organs, with variable clinical presentation. A strong clinical suspicion is necessary for the diagnosis. In patients with a compatible clinical picture, the histopathological examination confirms the diagnosis.

Uptodate MD Talmadge E King in Extrapulmonary manifestations of sarcoidosis Literature review current through: Sep 2021. | This topic last updated: May 19, 2020.

2452 / #EV1244

ANAKINRA, A GREAT ALLY IN THE TREATMENT OF PATIENTS WITH CORTICOSTEROID-DEPENDENT AND COLCHICINE-RESISTANT RECURRENT PERICARDITIS

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Case Description: 56-year-old woman, with a solitary kidney, who was admitted on 11/2020 for the first episode of acute pleuropericarditis with negative etiological study except ANA 1/160 cytoplasmic speckled pattern with negative ENAs and anti-DNA antibodies. Good response with prednisone at dose of 0.5 mg/kg (relative contraindication for NSAIDs) and colchicine, with complete clinical and biochemical resolution, disappearance of pleural effusion and normalization of echocardiographic initially findings. In follow up, the patient presented four clinical and laboratory recurrences coinciding with the decrease in the corticosteroid regimen. We added acetylsalicylic acid without success and azathioprine in third line that must be quickly stopped due to hypertransaminasemia After reviewing the literature, it was decided to start anakinra, a drug supported by numerous case reports and the clinical trial and registry of Imazio et al.

Clinical Hypothesis: Interleukin-1b stimulates the synthesis of inflammatory mediators such as prostaglandins and cyclo-

 DOI: 10.12890/2022_V9Sup1

oxygenase-2, both implicated in the hyperaemia, oedema, and hyperesthesia of the pericarditis, so Il-1-receptor inhibitor like anakinra is a therapeutic support to consider in corticosteroid-dependent and colchicine-resistant recurrent pericarditis.
Diagnostic Pathways: At a dose of 100 mg/day and after two months of treatment, our patient persists in complete clinical and analytical remission, tolerating decrease of prednisone to levels never achieved up to now without activity, fibrosis or pericardial constriction on cardiac imaging tests.
Discussion and Learning Points: Our case supports the increasing evidence that drugs focused against molecular targets as IL-1 receptor are effective in reducing recurrences and improving life quality in patients who suffer recurrent pericarditis refractory to conventional lines of treatment.

2713 / #EV1245

UNTREATED HEPATITIS C VIRUS INFECTION AND MIXED CRIOGLOBULINEMIA – THE DIAGNOSTIC CHALLENGE

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Case Description: A 63-year-old woman with a recent diagnosis of hepatitis C and a previous medical history of autoimmune hypothyroidism treated with thyroxine, presented to the emergency department with a one month history of abdominal pain associated with constipation, nausea and nonspecific weakness. She also reported a lower limb purpuric rash that had been successfully treated, empirically, with flucloxacillin, in the previous month. She denied arthralgias or other skin lesions. She was initially admitted with the diagnosis of infectious pancolitis and had started ciprofloxacin and metronidazole. During the first five days of admission, the clinical course evolved with nephritic syndrome (hypoalbuminemia, arterial hypertension, 2g/24h proteinuria, erythrocyturia) and anasarca.
Clinical Hypothesis: Initial investigation revealed positive rheumatoid factor (77 IU/mL), hypocomplementaemia (C4<2.9 mg/dL, C3=52 mg/dL) and acute kidney injury (creatinine 1.7 mg/dL). Eosinophiluria, ANA, Anti-dsDNA, ANCA, lupus anticoagulant and cryoglobulins were negative. HCV viral load was 13735108 UI/mL.
Diagnostic Pathways: A presumptive diagnosis of type II mixed cryoglobulinemia was made, considering cutaneous and renal involvement. Initial immunosuppressive therapy with methylprednisolone 1 g/day during 3 days, and subsequent prednisolone 1 mg/kg during 4 weeks, with gradual tapering, was done to control systemic manifestations, followed by rituximab. Complete symptomatic and analytical resolution was observed. The hepatitis C treatment was then initiated.
Discussion and Learning Points: Mixed cryoglobulinemia is often associated with viral infections, mainly HCV. The spectrum of manifestations is wide. Diagnosis is challenging given the percentage of the non-detectable circulating cryoglobulins at presentation, as shown in this case.

2017 / #EV1246

ANCA-ASSOCIATED VASCULITIS: A CHALLENGING DIAGNOSIS

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Case Description: We report the case of a 57-year-old woman with cough, myalgia and weakness. She was twice medicated with antibiotics for respiratory infection, without any improvement. She returns for the third time, and has gotten worse, complaining of dyspnea, oedema and fever. She has anemia, elevated inflammatory markers and renal insufficiency; urinary sediment has erythrocytes and proteins; thoraco-abdomin-pelvic computed tomography (CT) scan shows only bilateral lung condensation. She was admitted with piperacillin/tazobactam 4.5mg ev q6h for bacterial pneumonia. During her hospital admission, she remained afebrile, without respiratory symptoms, but rapidly progressed to renal failure with metabolic acidosis and acidemia.
Clinical Hypothesis: Antineutrophilic cytoplasmatic antibody (ANCA) associated vasculitis are a group of rare autoimmune conditions that cause vessel inflammation and present with a wide variety of manifestations.
Diagnostic Pathways: Her autoimmune panel revealed myeloperoxidase-ANCA positivity (>130 IU/mL; positive if >5 IU/mL). A renal biopsy showed pauci-immune glomerulonephritis with epithelial crescents.
Discussion and Learning Points: She started on plasmapheresis, methylprednisolone 1 g/day and cyclophosphamide 2 mg/kg with substantial clinic and analytical improvement. After discharged, she was followed by Internal Medicine and remains asymptomatic with normal renal function with azathioprine 100 mg/day and prednisolone 7.5 mg/day. From a clinical perspective, ANCA-associated vasculitis are among the most challenging diseases to identify but its diagnosis is imperative as prognosis, longitudinal management and treatment modalities are life-saving.

 DOI: 10.12890/2022_V9Sup1

2092 / #EV1247

USE OF TOCILIZUMAB IN THE EARLY TREATMENT OF JUVENILE IDIOPATHIC ARTHRITIS SYSTEMIC

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Case Description: We present a case of a-10-year-old man with no medical history who consulted due to 9-days-evolution fever, abdominal pain, generalized arthralgias, elbow and left wrist arthritis. Laboratory test revealed elevated inflammatory markers, anemia, coagulopathy and left pleural effusion. Admission and empirical antibiotic therapy was decided. Symptons remained and a generalized coalescent maculopapular rash appeared. Inmunology and microbiology test were negative. A diagnosis of Juvenile idiopathic arthritis (JIA) was made so treatment with oral prednisone was started improving fever, arthralgia and laboratory tests abnormalities.

Clinical Hypothesis: Methotrexate oral treatment was decided for 6 weeks (maximum dose 15 mg weekly) persisting inflammatory activity. Therefore, MTX was ended and intravenously tocilizumab (TCZ) was started (8 mg/kg every two weeks). After this therapeutic modification the patient achieved complete clinical remission. After six months changed to subcutaneous at standard dose of 162 mg weekly with excellent tolerance. Finally, corticosteroids were discontinued and biological treatment was optimized, administering subcutaneous TCZ every 4 weeks, maintaining clinical and analytical remission.

Diagnostic Pathways: JIA can be considerer an autoinflammatory syndrome with overproduction of IL 1, 6 , 18 and S100 proteins. Control inflammatory process is the goal treating the disease. Unlike other subtypes of JIA, this form doesn't usually respond to MTX treatment. Glucocorticoids is basic tratment and biological drugs could be needed to control inflammation and save corticosteroids. Off- label, TCZ is recommended in patients with adult Still's disease and SAM.

Discussion and Learning Points: Our case confirms the efficacy of TCZ in JIA treatment favoring a prompt symptomatic and analytical recovery.

2649 / #EV1248

PAINLESS STATIN-INDUCED AUTOIMMUNE RHABDOMYOLISIS, WHY TO TEST CREATINE KINASE (CK) ON MYOCARDIAL INFARCTION FOLLOW UP.

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Case Description: We present the case of a 60-year-old male with a history of smoking and a recent ST-elevation myocardial infarction (STEMI) treated with percutaneous transluminal coronary angioplasty and then starting beta-blockers, statins and acetylsalicylic acid. Three months after this event, he referred astheny and loss of strength, with normal cardiac testing. Eventually he was referred to internal medicine due to extreme fatigability, making him unable to even walk 6 months after the cardiac event (with no muscular or chest pain). We porformed standard blood tests showing significantly increased CK levels, thus we diagnosed him with rhabdomyolisis and the patient was admitted to the hospital for kidney protection.

Clinical Hypothesis: According to the history, rhabdomyolisis due to statins was the main concern, but other causes may not be completelly ruled out (specially due to the lack of pain).

Diagnostic Pathways: We performed a neurophysiological study showing motor and sensitive conductions impairement on the four limbs and a specific blood test showing antibodies against 3-hydroxy-3-methyl-glutaryl-coenzyme A reductase.

Discussion and Learning Points: It appears to be a trend not to test CK levels when studying patients with STEMI, since other blood test are way more useful for the diagnose of further cardiac events. Those patients usually start statins treatment, and the STEMI is usually blamed for any fatigability. We should be aware of the posibility of painless rhabdomyolisis in those patients and test for it.

513 / #EV1249

IS THE SLICC-FI FRAILTY INDEX FOR SYSTEMIC LUPUS ERYTHEMATOSUS RELIABLE FOR PROGNOSIS OF HOSPITALIZATIONS IN A 2ND LEVEL HOSPITAL? ASSESSMENT IN A REGIONAL HOSPITAL

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Background and Aims: Assess whether the frailty index (FI) of the International Systemic Lupus Collaborating Clinics (SLICC) predicts morbidity and mortality and its association with possible hospital admissions in a cohort established in southern Spain.

DOI: 10.12890/2022_V9Sup1

Methods: Descriptive retrospective observation study based on the data search established in the hospital computer program called DAE of those patients who met the diagnostic criteria for systemic lupus erythematosus according to the SLICC 2012 criteria and subsequently updated according to the EULAR/ACR 2019 criteria and who had been evaluated in Consultations in said period. A total of 64 patients were obtained with the necessary information within their medical history and who met the inclusion criteria in the period established from January 1, 2014 to December 31, 2020. Data management and analysis were carried out based on statistical program R Version 2.6.
Results: A total of 64 patients were selected. We found women (88.7%) with a mean age of 34.2±3.4 years and a mean duration (IQR) of the disease of 1.8 (0.6-2.0) years. The mean baseline SLICC-FI was 0.14±0.09. During the mean follow-up it was 4.8±3.7 years, Higher baseline SLICC-FI values were associated with more frequent hospitalizations during follow-up (incidence rate index 1.88; 95% CI 1.03-2.1), adjusting for variables. Among patients with ≥1 hospitalization, the highest baseline values of SLICC-FI showed a trend towards a greater proportion of> 7 days of hospitalization (RR:1.03; 95%CI 0.98-1.22).
Conclusions: The SLICC-FI may be a good predictor for hospitalizations among incident SLE patients in our area despite the limitations of our study.

1332 / #EV1250

REACTIVE ARTHRITIS AFTER BACILLUS CALMETTE-GUÉRIN INTRAVESICAL INSTILLATION: A CASE REPORT

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Case Description: A 60-year-old woman with high-grade papillary urothelial carcinoma previously submitted to transurethral tumor resection was proposed for intravesical instillation of Bacillus Calmette-Guérin (BCG) to a total of six induction cycles at one-week intervals. After the fifth cycle, patient presented with additive arthritis, featuring neck pain, left ankle arthritis and proximal interphalangeal joints of left and right hands, and left toes dactylitis. Some of these features contributed to considerable gait limitation. Patient also reported a previous episode of bilateral non-painful red-eye, with spontaneous resolution and, just after starting the fourth cycle, fever and dysuria which resolved in about 48h after instillation. No cutaneous, genitourinary, or gastrointestinal symptoms were described.
Clinical Hypothesis: Based on the clinical description, a diagnosis of reactive arthritis seems the most probable.
Diagnostic Pathways: Study was directed at the exclusion of other causes of arthritis. Performed analytical study showed an elevation of acute-phase reactants and an antinuclear antibody titer of 1:80 - normal limit 1:160. No infectious agents were found. Radiologic study only highlights C3-C4 interapophysary arthrosis. Treatment was directed for symptom control. Hospital consultation six months after the acute event showed a near resolution of symptoms and a descending trend of inflammatory parameters.
Discussion and Learning Points: Reactive arthritis is often preceded by 1-to-4 weeks of an infectious event, but other triggers can go unnoticed. Reactive arthritis after BCG is rarely described in literature. Thus, we highlight the importance of an attentive clinical look that allows a careful differential diagnosis to be made in face of a temporal relation suggestive of Reiter syndrome.

2710 / #EV1251

AUTOINMUNITY AS A CAUSE OF STATIN-RELATED TOXICITY

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Case Description: We present a 66-year-old man hospitalised in Vascular Surgery for debriding of superinfected diabetic foot ulcers. The subject had a clinical history of developed cardiovascular risk factors (hypertension, dyslipidaemia in treatment with both statins and fibrates, and advanced diabetes disease with chronic kidney failure and diabetic foot ulcers). During hospitalisation the patient began complaining about myalgias and objective proximal weakness, symmetrically present in both inferior limbs. Concomitant to the referred symptoms the patient showed analytic findings compatible with clinical rhabdomyolysis: acute kidney injury (creatinine 2.19 mg/dL) and myonecrosis (CK 1238 U/L). Aldolase level measured afterwards were of 18 U/L.
Clinical Hypothesis: Given the present medical history several diagnoses were taken into account including skin and soft tissue infections involving muscular tissue and common statin muscle-related events (SAMS). Nevertheless, given the gravity of both the clinics and laboratory test abnormalities, immune-mediated necrotizing myopathy (IMNM) was also suspected.
Diagnostic Pathways: Positive findings of autoantibodies against 3-hydroxy-3-methylglutaryl-coenzyme A reductase (HMGCR) supported our main hypothesis. An electromyography performed afterwards showed proximal muscular activity affection of myopathic characteristics and therefore confirmed the diagnosis. No muscle biopsy was needed.
Discussion and Learning Points: IMNM is a rare entity. However, the absence of response after wide-spectrum antimicrobial treatment and the myopathy-related symptoms, in form of proximal weakness, led more common entities rather unlikely. Suspecting IMNM becomes relevant when statin cessation is not followed by symptom resolution, as they tend to need oral steroid treatment,

 DOI: 10.12890/2022_V9Sup1

and even other immunosuppressors in refractory cases.

2721 / #EV1252

BEYOND VIRAL HEPATITS: AUTOINMUNITY AS A DIAGNOSIS OF EXCLUSION

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Case Description: We present a 68-year-old woman who attended the Emergency Department with a chief complaint of abdominal, asthenia and weight-loss of 14 kg in five months. The subject had a clinical history of a recent trip to Peru, hypothyroidism, cardiovascular risk factors and several cerebral ischemic strokes with little or no sequelae. Physical examination showed unspecific pain in epigastric and left lumbar region upon deep palpation. Blood tests revealed abnormal liver-enzyme results consisting of AST 535 U/L, AST 786 U/L, GGT 1075 U/L and ALP 213 U/L and hyperbilirubinemia of 3.8 mg/dL. The patient was hospitalised in Internal Medicine for further study with imaging and more blood tests. A body-CT scan showed diffuse hepatopathy and a slight intrahepatic biliary dilation. Further blood tests showed hypergammaglobulinemia.

Clinical Hypothesis: Given the present medical history several diagnoses were taken into account including toxic, hepatitis, viral hepatitis, non-alcoholic steatohepatitis (NASH) and autoimmune hepatitis (AIH). Others were previously discarded by the imagery, such as Budd-Chiari syndrome and liver-related oncologic disease.

Diagnostic Pathways: A thorough anamnesis easily discarded hepatotoxic drug intake and negative results in hepatotropic viruses made this diagnosis unlikely. Autoimmunity tests led to the result, with positivity to antinuclear antibodies (ANA) in titles up to 1/640 and anti-F-actine antibodies, giving the diagnosis of AIH.

Discussion and Learning Points: AIH is a diagnosis of exclusion, and it must be suspected when other more likely entities become discarded. As a chronic progressive illness, it must be carefully addressed in spite of its mild but insidious symptomatology.

2020 / #EV1253

NECROTIZING LEUKOCYTOCLASTIC SMALL VESSEL VASCULITIS AND INFECTIVE ENDOCARDITIS: A DIFFERENTIAL DIAGNOSIS

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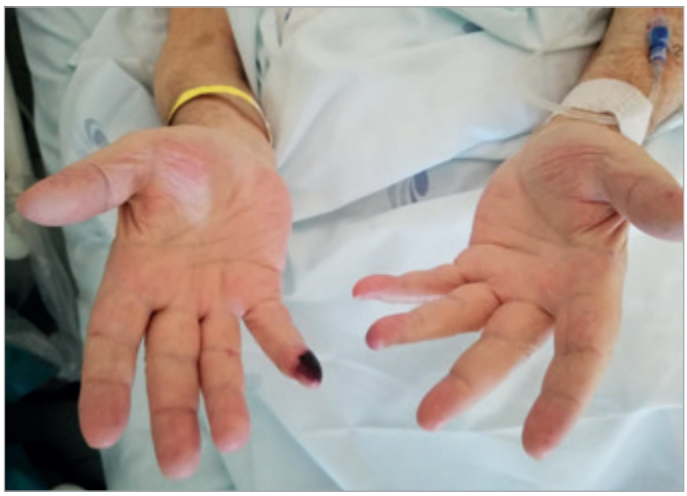
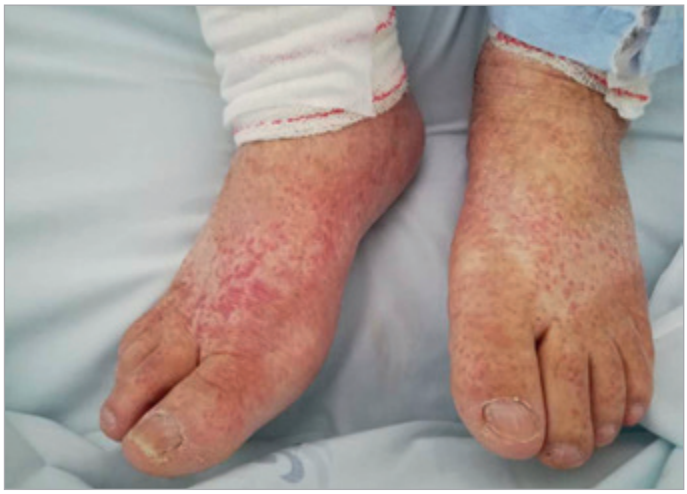
Case Description: We report a 75-year-old Caucasian male with a history of hypertension, dyslipidemia and mechanical aortic valve. The patient presented to the Emergency Department (ED) with a 12-day history of nonpruritic erythematous plaques on the upper and lower extremities. Physical examination was notable for scattered petechiae and necrotic lesions in the right little finger and left ring fingers and the lower extremities. At presentation, it was also noted right upper abdominal pain with deep palpation, Murphy sign and elevated white blood cell count, suggesting acute cholecystitis. At this stage the patient was started on empiric piperacillin/tazobactam (Figure).

Clinical Hypothesis: The description of the skin lesions were strongly suggestive of Necrotizing leukocytoclastic small vessel vasculitis (NLSVV), but it was imperative to rule out infective endocarditis with septic peripheral embolization.

Diagnostic Pathways: Accordingly, a transthoracic echocardiogram was performed, which showed no vegetations. Blood cultures drawn in the ED were later negative. Despite the high probability of NLSVV, a transesophageal echocardiogram was also performed, showing no vegetations. The patient was admitted and was started on prednisolone (60 mg/day) given the high suspicion for NLSVV. Serological tests returned negative results. A lesion biopsy later performed in the medical ward later confirmed the diagnosis of NLSVV.

Discussion and Learning Points: Necrotizing leukocytoclastic small vessel vasculitis may present similarly to the many possible clinical presentations of infective endocarditis. Therefore prompt diagnosis is essential for appropriate treatment.





 DOI: 10.12890/2022_V9Sup1

#EV1253 Figure 1.

1003 / #EV1254

NEPHROTIC SYNDROME AS THE FIRST MANIFESTATION OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: A 22-year-old man with no relevant clinical background presented to the hospital periorbital ans bimalleolar edema of sudden onset with the duration of 3 weeks. At the beginning, he described an episode of asymmetrical and migratory polyarthralgia of the fingers. Of the tests performed points out multifactorial anemia due to iron and folic acid deficit and autoimmune hemolysis; thrombocytopenia; creatinine 1.32g/dL, hypoproteinemia and hypoalbuminemia, proteinuria above 8g in 24-hour urine.
Clinical Hypothesis: The patient was admitted for Nephrotic Syndrome under study.
Diagnostic Pathways: From the etiological study carried out, positive ANAs, anti-dsDNA antibodies, anti-cardiolipin, positive B2 glycoprotein, positive lupus anticoagulant and complement consumption stand out. Thoraco-abdomino-pelvic CT was performed, showing splenic infarcts, without other alterations. For presenting clinical and analytical criteria for SLE, a renal biopsy was performed without evidence of crescents, preliminarily.
Discussion and Learning Points: The patient was diagnosed with systemic lupus erythematosus with lupus nephritis, autoimmune hemolytic anemia and thrombocytopenia and splenic infarcts in the context of secondary anti-phospholipid syndrome. He was under corticoid therapy, hydroxychloroquine and hypocoagulation during the hospitalization. He is now awaiting the definitive result of the renal biopsy to start immunosuppression. Kidney disease is typically detected in most patients with SLE. The most frequently observed abnormality in patients with LN is proteinuria. Elevated anti-dsDNA titers and low complement levels often indicate active SLE, particularly LN. Anemia is the most common hematologic abnormality and autoimmune hemolysis has been reported in 10% of SLE patients. APS is typically associated with thrombosis (venous or arterial) and is associated with platlet consumption.

2310 / #EV1255

ANCA MPO VASCULITIS WITH PULMONARY, NEUROLOGICAL AND CARDIAC INVOLVEMENT

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Case Description: 59-year-old woman, autonomous and cognitively intact, went to the emergency department with symptoms of dyspnea, marked asthenia, weight loss and complaints of loss of

 DOI: 10.12890/2022_V9Sup1

sensation in the lower limbs. During hospitalization, the patient developed hemoptysis and hypoxemic respiratory failure, requiring orotracheal intubation and pulses of methylprednisolone. She was hospitalized again due to worsening dyspnea, orthopnea and lower limb edema. Patient discussed in a multidisciplinary manner, having changed immunosuppressive treatment to rituximab given the possibility of cardiac toxicity inherent to cyclophosphamide although the most probible diagnosis was the diagnosis of cardiac affection of vasculites (that only cardiac biopsia would diagnose). The patient is stable and is being followed up in an outpatient clinic of internal medicine and pneumology.

Clinical Hypothesis: Tuberculosis, organizing pneumonia, alveolar hemorrhage, pulmonary thromboembolism, lung cancer

Diagnostic Pathways: Positive MPO ANCA and increased sedimentation rate, computed tomography of the chest with a pattern of interstitial pneumonia. Bronchoscopy with bronchial biopsy was compatible with a vasculitis lesion. Electromyography compatible with polyneuropathy. Cardiac magnetic resonance with presence of late enhancement, criteria compatible with myocarditis.

Discussion and Learning Points: Anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis are characterized by granulomatous and neutrophilic inflammation of vessel tissue, with possible multiorgan involvement. The presentation of this disease is very varied, which makes its diagnosis challenging. With this case we can see that in this pathology it is very important to collect the clinical history and physical examination, paying attention to the signs and symptoms. Furthermore, as it is a systemic disease, an exhaustive study is essential for the diagnosis of the affected organs.

2567 / #EV1256

IGG4-ASSOCIATED DISEASE: A TYPICAL PRESENTATION MIMICKING HODGKIN'S LYMPHOMA

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Case Description: Comprehending a broad clinical spectrum, IgG4-associated disease includes a group of rare immune-mediated fibroinflammatory diseases with frequent systemic involvement and/or tumor-like presentation. The diagnosis derives from clinical, analytic and histopathologic findings. Current treatment is based on immunosuppression with corticosteroids. Authors describe the case of a 66-year-old man, hypertensive and diabetic, with cerebrovascular and coronary disease, and a history of diagnosis of Hodgkin's lymphoma.

Clinical Hypothesis: Followed up as a Pneumology outpatient due to obstructive pulmonary disease and referred to the Internal Medicine external consultation due to orthopnea, cervical swelling and chest tomography with evidence of multiple hypertrophied mediastinal ganglia and hilar lymph nodes.

Diagnostic Pathways: Anamnesis and physical examination revealed weight loss and cervical swellings. Initial laboratory findings depicted a slight beta-2-microglobulin increase and eosinophilia. A cervico-thoraco-abdomino-pelvic tomography was performed, which showed bilateral cervical, submandibular, infraparotid, mediastinal and hilar adenomegalies, as well as an thickness accentuation of the nasopharynx soft tissues, the inferior border of the left parotid and bronchial tissue. A right cervical lymph node excision was performed, which revealed exuberant follicular hyperplasia, with a predominance of plasma cells and no Hodgkin cells. Subsequent analyses showed polyclonal hypergammaglobulinemia in protein electrophoresis and serum IgG4/IgG ratio >40%.

Discussion and Learning Points: Oral prednisolone was started with evidence of remission of the swellings and consequent symptomatic improvement. This case illustrates the importance of recognizing IgG4-associated disease in the differential diagnosis of systemic diseases that might present with multiple swellings. Early diagnosis and treatment based on corticotherapy considerably improve these patients' outcomes.

2496 / #EV1257

SEVERE HYPERCALCEMIA AND GENERALIZED LYMPHADENOPATHY, DIAGNOSIS OF SARCOIDOSIS WITH MULTISYSTEM INVOLVEMENT

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Case Description: We present the case of a 49-year-old female patient with a personal history of CKD G3bA1, who was admitted to Internal Medicine for dyspnea and severe hypercalcemia. Treatment was started with fluid therapy, diuretic and corticosteroid with progressive decrease in calcium levels, and radioguided selective parathyroidectomy was performed.

Clinical Hypothesis: The differential diagnosis of calcemia abnormalities is usually made when a variation from normal serum values is detected incidentally in a routine blood test. The most frequent cause of hypercalcemia in the general population is primary hyperparathyroidism (54%) and, in hospitalized patients, neoplasms (50%). Hypercalcemia is defined as the existence of serum calcium greater than 10.5 mg/dL.

Diagnostic Pathways: A thoracoabdominal CT scan was performed due to the suspicion of lymphoproliferative syndrome, which

 DOI: 10.12890/2022_V9Sup1

showed innumerable pathologic lymphadenopathies in both infraclavicular regions, bilateral inferior perithyroid space, and in mediastinal spaces. It was decided to contact General Surgery who biopsied a cervical lymph node and in the anatomopathological study described extensive non-necrotizing granulomatous inflammation. The patient was diagnosed with multisystemic sarcoidosis with non-caseating granulomatous adenitis and systemic nodular involvement.
Discussion and Learning Points: Sarcoidosis is a multisystemic disease that mainly affects lymph nodes, skin, lung, ocular, cardiac, hepatosplenic, calcium metabolism and less frequently, renal. Diagnosis requires compatibility of clinical signs and histopathological data such as the presence of non-caseating granuloma. Approximately one third of patients show spontaneous remission in 1 to 2 years, another third show clinical and radiological progression, and the rest remain stable. For this reason, corticosteroid treatment is only necessary in cases of significant critical organ involvement.

772 / #EV1258

DRESS SYNDROME – WHEN THE TREATMENT BECOMES THE PROBLEM

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Case Description: A 61-year-old man admitted with an acute ischemic stroke. On day 6 of ward patient developed fever and a full septic screen was performed and empiric antibiotic therapy was begun. Due to sustained fever, antibiotic therapy was switch to piperacillin/tazobactam. A transthoracic echocardiogram was requested, which didn't reveal vegetations suggestive of endocarditis, and a chest CT showed parenchymal consolidations in both lower lobes. Uroculture showed growth of a *Candida albicans* and *Klebsiella pneumoniae*, the latter also isolated in the sputum culture.
Clinical Hypothesis: Nosocomial Urinary Tract Infection and Pneumonia was diagnosed and patient started fluconazole and targeted antibiotic therapy with imipenem with resolution of fever.
Diagnostic Pathways: After 6 days of targeted therapy the patient presented with fever, a diffuse maculopapular rash sparing the palms/soles and cervical lymphadenopathies. Laboratory findings demonstrated eosinophilia, hepatic cytolysis and acute kidney injury. Virology, serology, active/latent tuberculosis screening and septic screening were negative. Fluconazole was discontinued and corticotherapy was initiated. Due to lack of improvement, imipenem was discontinued on day 10, with gradual improvement of the rash within 1 week, with evolution to a desquamative phase, resolution of fever and normalization of analytical changes. Based on clinical and laboratory findings it was possible to diagnose a Drug reaction with eosinophilia and systemic symptoms (DRESS) due to imipenem.
Discussion and Learning Points: The DRESS Syndrome is a potentially life-threatening, drug-induced hypersensitivity reaction characterized by fever, cutaneous eruption, hematologic abnormalities, lymphadenopathy and internal organ involvement such as kidney, liver, lung and heart. Prompt clinical recognition and discontinuing suspected medicines helps to minimise morbidity and mortality.

818 / #EV1259

RHEUMATOID ARTHRITIS - MEMORABLE CLINICAL IMAGES DIFFICULT TO FORGET

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Case Description: A 77-year-old woman was admitted to the Psychiatry service for episodes of delirium with auditory hallucinations and suspected Lewy body dementia. Internal Medicine collaboration was requested for peripheral arthralgias and severe disability for activities of daily living. Patient reports chronic distal peripheral symmetrical polyarthritis associated with morning stiffness>1 hour with decades of evolution with chronic use of NSAIDs, without immunomodulatory therapy or follow-up. Physical examination revealed bilateral wrist deformities, dislocation with marked cubital deviation of the metacarpophalangeal joints, "Boutonnière" and swan-neck deformities, rheumatoid nodules, metatarsophalangeal dislocation with cubital deviation and large rheumatoid nodules in the plantar region of both feet.
Clinical Hypothesis: Rheumatoid arthritis (RA) is a systemic autoimmune disease characterized by progressive inflammation that preferentially affects peripheral joints and can become highly disabling. RA was the most likely diagnosis upon evaluation.
Diagnostic Pathways: Laboratory findings revealed elevated rheumatoid factor (95.7 IU/mL), anti-citrulline >200.0 U/mL, sedimentation rate of 41 mm/h and anemia of chronic disease. The remaining immunologic study was negative; no evidence of infection; screening for latent tuberculosis was negative as were oncologic screenings.
Discussion and Learning Points: Due to the state of dependence, psychiatric pathology and seropositive RA with established damage, the patient started conventional immunosuppressive treatment with methotrexate and analgesia with opioid in order to control systemic inflammation and symptoms, particularly pain. This clinical case aims to alert to the inexorable progression of untreated RA with irreversible damage that leads to severe morbidity limiting patients' quality of life and for the importance of limiting care and tailored the therapy to each patient and their needs.

 DOI: 10.12890/2022_V9Sup1

1826 / #EV1260

BEHÇET SYNDROME, A RARE MANIFESTATION WITH SIGNIFICANT IMPLICATIONS

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Case Description: 32 year-old Caucasian female, past medical history relevant for rosacea, ferropenic anemia, cervical radiculopathy and obesity, followed at the Autoimmune Diseases clinic for Behçet Syndrome (BS) presenting with painful, recurrent oral aphthous ulcerations and cutaneous lesions in the form of genital and upper limb pseudofolliculitis, carrying the HLA-B51 antigen and chronically treated with 75mg of azathioprine twice daily in addition to topical corticosteroids and sucralfate. At 1,5-year follow up she develops a slight but persistent asymptomatic elevation of serum liver enzymes.
Clinical Hypothesis: Despite the lack of symptoms and physical findings of BS-gastrointestinal manifestations we sought to exclude BS-related hepatic disease as these can carry significant morbidity and mortality.
Diagnostic Pathways: There was no history of alcohol consumption. Screening for viral and autoimmune hepatitis was negative. Liver MRI revealed heterogenous texture of the right hepatic lobe, with areas of edema suggestive of either inflammation or microvascular changes, with permeable hepatic veins. Liver biopsy showed exuberant sinusoidal dilation with discrete and focal necroinflammatory lesions, which have been described in rare cases of BS-related Budd-Chiari Syndrome (BS-BCS).
Discussion and Learning Points: BS is a relapsing acute inflammatory vasculitic disorder. Involvement of the hepatic veins or inferior vena cava, although rare, leads to BCS. BS-BCS carries high mortality. A portion of the patients may be asymptomatic or minimally symptomatic until disease progresses. Early identification of hepatic BS involvement is crucial, as efficient medical intervention may lead to more favorable outcomes.

556 / #EV1261

METHOTRAXATE – INDUCED TOXIC EPIDERMAL NECROLYSIS: A CASE REPORT

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Case Description: A 73 year-old female was admitted to our hospital due to pancytopenia, she was diagnosed elsewhere with rheumatoid arthritis for which she received 15 mg of subcutaneous (SC) methotrexate (MTX) 5 days ago. After 3 days she developed an erythematous rash which became bullous and started peeling and blistering after 2 days. Clinically skin lesions was predominate in the face, neck and trunk, the oral and genital mucosa were also involved, with painful hemorrhagic erosions covered with a grayish-white membrane. Her skin was tender to the touch, and skin pain was prominent and out of proportion to the cutaneous findings. Nikolsky sign (the ability to extend the area of superficial sloughing by applying gentle lateral pressure on the surface of the skin at an apparently uninvolved site) was positive.
Clinical Hypothesis: The suspicion of toxic epidermal necrolysis (TEN) was raised and suported by clinical and histological findings. Systemic corticosteroid pulse therapy and Intravenous immune globulin (IVIG) have been administered in combination and halted the progression of skin detachment. Due to hemodynamic instability plasmapheresis was not implemented and the patient was transferred to an intensive care unit.
Diagnostic Pathways: The diagnosis of TEN is based upon clinical and histologic findings in a patient with a history of antecedent drug exposure or febrile illness. Histologic findings on skin biopsy are supportive but not independently diagnostic.
Discussion and Learning Points: Here we describe a patient who developed TEN in short time after administration of low dose of SCMTX.

399 / #EV1262

ANKYLOSING SPONDYLITIS AND SUBSEQUENT HIP FRACTURES

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[3]Hebrew University of Jerusalem Faculty of Medicine, Department of Military Medicine, Jerusalem, Israel
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Background and Aims: Ankylosing spondylitis is associated with osteoporosis and falls. However, the evidence supporting a link between ankylosing spondylitis and hip fractures is limited and mixed. Our objective was to assess the risk of hip fractures in a large cohort of patients with ankylosing spondylitis.
Methods: In this retrospective cohort study, we included men and women diagnosed with ankylosing spondylitis between 2002 and 2018. Matching in a 5:1 ratio was based on age and sex. Follow-up ended on 23rd June 2019. Cox regression models were used to determine the hazard ratio for hip fractures.
Results: The final cohorts included 5,909 ankylosing spondylitis patients and 28,671 matched patients. The ankylosing spondylitis cohort had a mean age of 49 (17) years, 3,762 (64%) men, 3,638 (62%) patients born in Israel, and 1,532 (26%) patients of low residential socioeconomic status. During 45,388 and 224,192 cumulative person-years of follow-up, the ankylosing spondylitis and matched cohorts had 2.47 and 1.63 cases of hip fractures per 1,000 person-years, respectively. Ankylosing spondylitis patients also developed hip fractures earlier (74 [13] vs. 79 [10] years, p = 0.002). Ankylosing spondylitis was associated with hip fractures in

 DOI: 10.12890/2022_V9Sup1

the unadjusted (HR=1.52, 95%CI [1.23 – 1.88]) and adjusted (HR = 1.56, 95%CI [1.27 – 1.93]) models.
Conclusions: This study found that ankylosing spondylitis patients developed hip fractures earlier and more often compared to a matched cohort. This study suggests that ankylosing spondylitis patients might benefit from more proactive screening, mitigation, and prevention of risk factors for hip fractures.

569 / #EV1263

POLYMYALGIA RHEUMATICA: AN INCAPACITATING DISEASE WITH A MIRACULOUS TREATMENT

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Case Description: First case, an 85-year-old man, bedridden for 2 years after an episode of cervical and shoulder pain, brought to the emergency department (ED) because of symptom relapse beginning 3 weeks earlier. Physical exam showed stiffness at neck mobilization and flexion of the thighs, subfebrile.
Second case, a 67-year-old woman, presented to the ED because of shoulder and lower limb pain, beginning after exertion, with more pain at the thighs, with inflammatory features and morning stiffness for the past month, resulting in restriction of mobility. Maximum recorded peripheral temperature was 38ºC. Physical exam showed shoulder restriction and pain, cervical rigidity, and pain and functional limitation of the pelvic girdle.
Clinical Hypothesis: Polymyalgia rheumatica (PMR), osteoarthritis of the cervical spine and shoulders, Bilateral rotator cuff syndrome, fibromyalgia.
Diagnostic Pathways: In the first case, blood tests showed macrocytic anemia, erythrocyte sedimentation rate (ESR) 105 mm, C-reactive protein (CRP) 16.82 mg/dL and procalcitonin (PCT) 0.04 pg/mL; in the second case showed normocytic anemia, ESR 105 mm, CRP 20.65 mg/dL and PCT 0.13 ng/mL. In both cases, PMR was thought to be the most likely diagnosis and the patients were started on prednisolone 15mg. There was a fast and significative symptomatic improvement, with full functional recovery and walking capacity.
Discussion and Learning Points: PMR can be incapacitating, causing pain and rigidity of the shoulder and pelvic girdles. It's important to consider this diagnosis since corticosteroids (CCS) are effective, with symptomatic relief and significant functional improvement.

811 / #EV1264

ACUTE KIDNEY INJURY (AKI) - AN UNUSUAL ETIOLOGY BEYOND INFECTION

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Case Description: Acute Kidney Injury is caracterized by abrupt detioration in glomerular filtration rate with compromise of renal function, manifested by increase in serum creatinine level with/without reduced urine output. AKI etiologies are classified as prerenal, renal or postrenal. The authors present a case of AKI initially interpreted in the context of respiratory sepsis. As the investigation progressed, this disorder became a more complex finding associated with systemic disease. A 43 year old woman with previous diagnosis of rheumatoid arthritis (RA), treated with prednisolone and sulfasalazine was admitted with diagnosis of respiratory sepsis with renal and respiratory dysfunctions; treatment was started - levofloxacin. There were long-term complaints of arthritis, serositis, cutaneous hypersensitivity and malar erythema. There was a favourable clinical evolution, with a sustained decrease of the inflammatory parameters and necessity of supplementary oxygen. However, the patient maintained renal function degradation (maximum 2.81 mg/dL), difficult to control hypertension and reduction of urinary output. The analytical studies revealed positive ANA, anti-DNA, anti-SSa, anti-SSB, complement consumption, hematuria, leukocyturia and proteinuria (3.3 g/24 hours).
Clinical Hypothesis: A secondary AKI to autoimmune disease was assumed (lupus nephritis/ overlaped RA and lupus); pulse doses of methylprednisolone were initiated.
Diagnostic Pathways: Renal biopsy confirmed diagnosis -morphologic findings compatible with class IV lupus nephritis.
Discussion and Learning Points: Autoimmune diseases represent a broad spectrum of pathologies with overlap of symptoms/analytical alterations. This case reveals the importance of detailed revision of clinical history, previous diseases, previous exams and analytical results, which associated with the current clinical situation allowed timely diagnosis and beginning of prognosis changing treatment.

750 / #EV1265

EOSINOPHILIA, AND WHAT?

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Case Description: We reported a 74-year-old with asthma for many decades and nasal polyposis. Churg Strauss Syndrome (CSS) was suspected after the continuous worsening of the blood panel associated with fever, weight loss and myalgias), hemoptysis, and cough. Further tests verified pulmonary infiltrates, paranasal sinusitis, and elevated pANCA (MPO-ANCA) antibodies. The

 DOI: 10.12890/2022_V9Sup1

treatment was initiated with prednisolone 60 mg/day with decreasing doses and cotrimoxazole 800 mg + 160 mg 3 times/ week with good clinical improvement.
Clinical Hypothesis: Churg-Strauss syndrome, Wegener´s granulomatosis, eosinophilic pneumonia, allergic bronchopulmonary aspergillosis, malignancy.
Diagnostic Pathways: Lab workup with autoimmune panel Chest X-ray Thoracic CT Bronchofibroscopy.
Discussion and Learning Points: CSS is a small vessels vasculitis with a multisystemic presentation. It is a rare disease in patients over 65 years of age and has a variable presentation that may go unnoticed at an early stage. It should be excluded in all patients with severe asthma and hypereosinophilia.
According to the American College of Rheumatology (ACR), the diagnosis is established when in presence of 4 of the following 6 criteria: asthma, eosinophilia (> 10% in peripheral blood), paranasal sinusitis, pulmonary infiltrates, histological evidence of vasculitis with extravascular eosinophils, and mononeuritis multiplex or polyneuropathy.
The treatment is primary based on corticotherapy with good prognosis.

56 / #EV1266

SARCOIDOSIS: OLD DISEASE, SAME CHALLENGES

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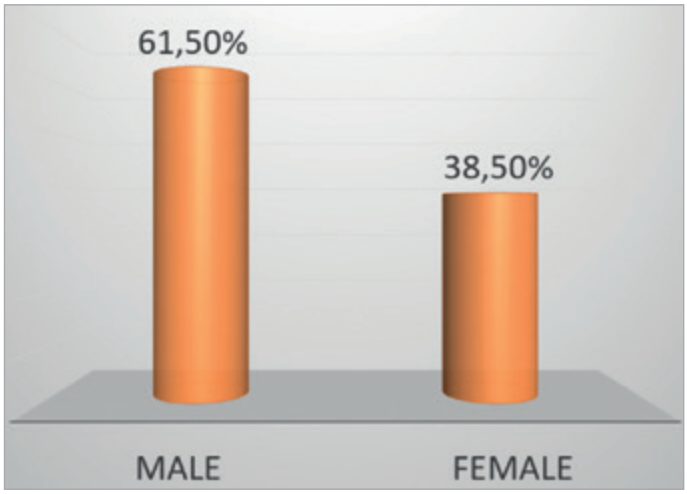
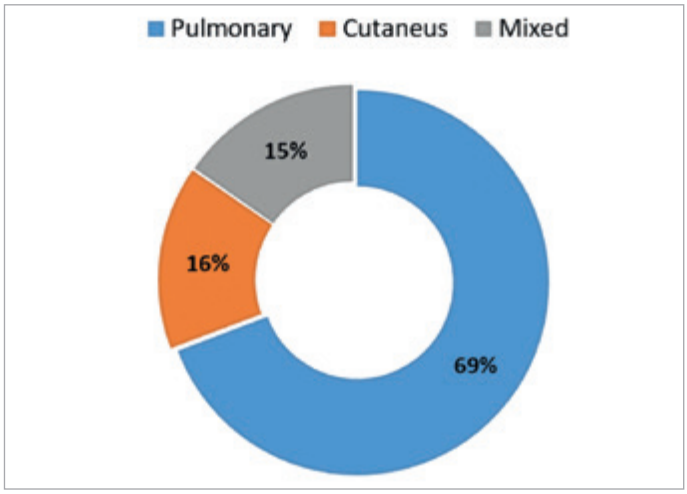
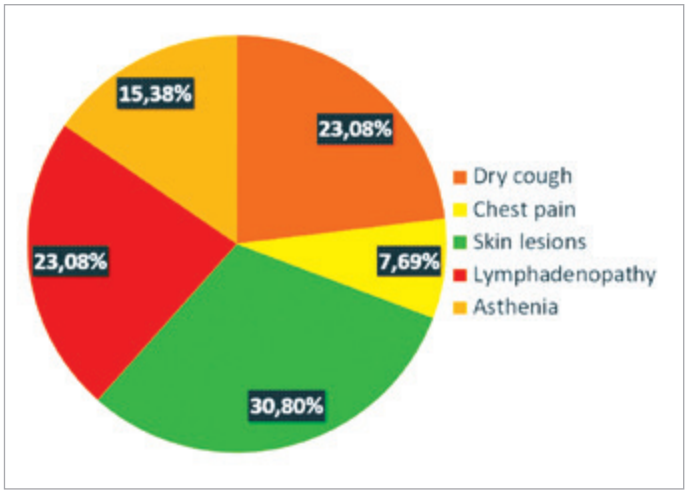
Background and Aims: Sarcoidosis is a multisystemic granulomatous disease of unknown origin with an extremely heterogeneous an unpredictable clinical course. The aim of this study is to describe the clinical presentation, diagnostic tools and treatment of a series of cases of sarcoidosis in a General Hospital in Madrid.
Methods: A descriptive and retrospective study was conducted including all patients diagnosed with sarcoidosis by biopsy between 2008-2017. Variables used: Age, Sex, pulmonary and extra-pulmonary involvement and treatment used. The statistical analysis was made through the SPSS program.
Results: We found 13 patients diagnosed with sarcoidosis through biopsy. The mean age of diagnosis was 38 years with a standard deviation of 12.6 years. 53.8% had no history of smoking. As an associated symptom, dyspnea was predominantly found in 30.8% (Figure).
Conclusions: Sarcoidosis has a mortality <5%, but in 10-30% of cases it can have a chronic course which can lead to progressive respiratory deterioration. The disease is believed to be the result of the action of an external agent that triggers the different immune responses in individuals genetically susceptible. Various environmental, occupational and genetic factors have been implicated, however to this day it is not known why some people develop a disease with more torpid evolution.



#EV1266 Figure 1A: Sarcoidosis Cases.



#EV1266 Figure 1B: Type of affectation.



#EV1266 Figure 1C: Clinical debut.

DOI: 10.12890/2022_V9Sup1

1492 / #EV1267

SARCOIDOSIS EVOLUTION

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Background and Aims: Sarcoidosis is a multisystemic granulomatous disease in which the evolution and severity are highly variable. Mortality is estimated at between 0.5–5%. In most benign cases no treatment is required but a regular follow-up until recovery is necessary. The aim of this study is to analyze the evolution of sarcoidosis over time in a series of patients diagnosed in a General Hospital in Madrid.

Methods: A descriptive and retrospective study was conducted including all patients diagnosed with sarcoidosis by biopsy between 2008-2017. The statistical analysis was made through the SPSS program.

Results: We found 13 patients diagnosed with sarcoidosis through biopsy.

Conclusions: Sarcoidosis has a mortality <5% but in 10-30% of cases it can have a chronic course which can lead to progressive respiratory deterioration. The disease is believed to be the result of action of an external agent that triggers the different immune response in individuals genetically susceptible. Various environmental, occupational and genetic factors have been implicated, however to this day it is not known why some people develop a disease with more torpid evolution.

 DOI: 10.12890/2022_V9Sup1

AS19. OTHER

1569 / #EV1268

LEAD INTOXICATION: THE HIDDEN DANGER IN YOUR WALLS

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Case Description: The objective is to discuss the clinical reports of two related patients. A 42-year-old male who referred fever and recurrent acute abdominal pain. The second one, a 23-year-old male who, besides similar gastrointestinal symptomatology, reported asthenia and dyspnoea on exertion. Both patients worked in old building refurbishing without regulated equipment and therefore possibly having inhaled demolished material. Data from the first patient's arrival at the ER included: severe hypertensive crisis, elevated CPK, anaemia without basophilic staining and elevated protoporphyrins; from the second one, hypertransaminasemia and anaemia.

Clinical Hypothesis: Bearing in mind the first patient's symptomatology and elevated protoporphyrins, acute intermittent porphyria could have been thought as a first diagnosis. However, taking into account both patients worked at the same place, reported similar symptomatology and laboratory results, a different possibility arises: environmental condition, in this case lead poisoning from paint on demolished walls.

Diagnostic Pathways: On suspicion of acute lead poisoning, blood and urine levels were drawn and were high in both patients. Treatment with urine alkalinisers and lead chelators (dimercaprol and EDTA) was started, and the symptomology wore off within 48 hours.

Discussion and Learning Points: Although international regulations on the use of lead in paints and other materials have reduced the number of lead poisonings, it is still possible to find it in workers refurbishing old buildings. Lead toxicity should be suspected in cases of acute abdomen, anaemia or hypertensive crisis in patients with a history of exposure or unknown cause. Lead deposition in long bones requires monitoring of levels, early follow-up and sometimes repeating treatment.

2307 / #EV1269

AN AUDIT OF THE ACCURACY OF ALLERGY STATUS DOCUMENTATION RELATING TO PENICILLIN AND THE RESULTANT MEDICATION SAFETY IMPLICATIONS AT A UNIVERSITY TEACHING HOSPITAL IN IRELAND

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Background and Aims: Inappropriate documentation, prescribing and/or administration of antibiotics which are contraindicated in patients with a penicillin allergy is a known cause of patient harm. We aimed to assess compliance with institutional policies, procedures, protocols and guidelines (PPPGs) relating to penicillin allergy.

Methods: Over 2 consecutive days, data was collected across 10 wards, the emergency department and paediatric unit. This involved kardex review, patient interview and allergy wristband inspection to assess compliance with institutional PPPGs. Ethics approval was obtained.

Results: 206 patients were included. 176 patients had the allergy section of their kardex completed. In 2 patients, the allergy section was completed incorrectly and a penicillin allergy was identified on interview. 18 patients were identified as having a penicillin allergy/intolerance. This is an incidence of 8.7%. In 55.6% (n=10), the nature of the penicillin allergy/intolerance was documented in the kardex. Of those with a penicillin allergy/intolerance, 27.8% (n=5) were severe allergic reactions, 0 were non-severe allergic reactions, 33.3% (n=6) were intolerances, 27.8% (n=5) were indeterminate and 11.1% (n=2) were uncategorised. 44.4% (n=8) had allergy wristbands. 33.3% (n=6) were prescribed a penicillin. 27.8% (n=5) were administered a penicillin. 0 had an allergic reaction to the administered penicillin.

Conclusions: This audit demonstrates the need for an e-prescribing system with allergy status as a mandatory input. We

 DOI: 10.12890/2022_V9Sup1

propose an educational intervention to improve compliance with allergy wristband administration. We plan to re-audit once these measures are adopted.

766 / #EV1270

CLINICAL VALUE OF INPATIENT PET/CT IN INTERNAL MEDICINE

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Background and Aims: PET/CT is used in internal medicine for detection of endocarditis, metastatic infections, fever of unknown origin, and autoimmune and malignant diseases, among other applications; however, data regarding its diagnostic role in inpatients is limited. The aim of this study is to assess the contribution of inpatient PET/CT in the diagnosis and/or management of complex cases.

Methods: All patients admitted between 1/2015-12/2020 to the Departments of Internal Medicine, Cardiology, Medical Intensive Care, and Intensive Cardiac Care, who underwent a PET/CT scan for diagnostic purposes during hospitalization, were included. Patients with known pre-existing malignancy who were referred to PET/CT solely for follow-up purposes were excluded. The primary outcome measure was change in diagnosis and/or management.

Results: Retrospective data was collected from 260 patients. Indications for PET/CT were known/suspected infection (42%), inflammation (35%), malignancy (17%), cardiac disease (5%), and other (1%). Findings that were not visible by prior imaging were reported on 112 (43%) scans. 209 scans (80%) were clinically helpful: 56 (22%) changed the type and 34 (13%) changed the length of treatment; 14 (5%) prevented an invasive treatment that would have been given otherwise; 24 (9%) contributed to a diagnosis but did not change treatment; 19 (7%) contributed to localization; 60 (23%) showed negative results that prevented further workup; 2 (1%) showed incidental findings that required treatment.

Conclusions: PET/CT is a useful, noninvasive diagnostic tool for hospitalized patients with various presentations. These findings suggest that earlier use of this modality in selected patients may prevent unneeded invasive diagnostic tests.

301 / #EV1271

IS COMPUTED TOMOGRAPHY USEFUL IN DISTINGUISHING TRANSUDATES FROM PLEURAL EXUDATES?

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Background and Aims: To assess the usefulness of computed tomography (CT) to distinguish between pleural transudate and pleural exudate, based on the attenuation coefficient of pleural effusion (PE) measured in Hounsfield Units (HU).

Correlating the attenuation coefficient on CT with Light's criteria and pleural fluid protein and LDH levels.

Methods: All patients undergoing diagnostic thoracentesis between 2019 and 2020 were retrospectively evaluated.Three UH measurements were performed in the PE (upper, middle and lower lobe) and the mean was calculated.The area in which density was analyzed was between 190 and 210 mm2.A cut-off point of UH was established to distinguish transudate from exudate. Attenuation was correlated with Light's criteria and pleural fluid protein and LDH levels.

Results: We analyzed 100 patients with transudates (81% secondary to heart failure) and 217 with exudates (44.7% malignant PE). Mean attenuation values were lower in transudates (0.67 [-3.75 to 6.17] HU) than in exudates (6.43 [2.31 to 10.28] HU, p<0.001). Among the transudates,75 were correctly classified by Light's criteria,their attenuation values being lower (-0.24 [-3.84 to 5.22] UH) with respect to the 25 "false exudates" (3.93 [-1.34 to 7.38] UH, p<0.001).A cutoff point of 0 UH showed a sensitivity of 82% (77-87),specificity of 47% (38-57), positive likelihood ratio of 1.6 (1.3-1.9) and negative of 0.37 (0.26-0.53) for identifying exudates. A positive correlation was observed between attenuation values and pleural fluid proteins (r=0.494) and LDH (r=0.298).

Conclusions: CT attenuation values are not useful for differentiating transudate from pleural exudate.There is a positive correlation between CT attenuation and pleural fluid protein and LDH.

2050 / #EV1272

IATROGENIC RHABDOMYOLYSIS - ABOUT A CLINICAL CASE REPORT

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Case Description: The authors report a case of a 69-year-old woman with history of hypertension, type 2 diabetes, dyslipidemia, ischemic heart disease, medicated with indapamide, ramipril, atenolol, metformin, glicazide, simvastatin and aspirin; she had

 DOI: 10.12890/2022_V9Sup1

recently completed treatment with amoxicillin + clarithromycin + omeprazole, after gastric biopsy revealed positivity for Helicobacter pylori; admitted in the emergency room presenting a one-week history of asthenia, anorexia, weight loss and pain in the right hypochondrium, followed by lower limbs' weakness, worsened abruptly in the previous week.
Clinical Hypothesis: Iatrogenic disorder due to *Helicobacter pylori* eradication therapy
Diagnostic Pathways: On examination: generalized muscle weakness, predominantly in neck flexion (grade 2/5) and in all four limbs (grade 2/5). Initial investigation revealed: total creatine kinase 12,572 IU/L; aspartate aminotransferase 447 IU/L; alanine aminotransferase 198 IU/L; creatinine 1.77 mg/dL, urea 55 mg/dL. Vigorous intravenous hydration was performed, with clinical and analytical improvement. Causality was found between the start of H. pylori eradication therapy (withdrawn at admission) and the decrease in generalized muscle strength. Myopathy secondary to pharmacological association (statins, macrolide and proton pump inhibitor, all CYP3A4 inhibitors), was assumed.
Discussion and Learning Points: Rhabdomyolysis results of skeletal muscle cell lysis, with a release of intracellular substances into the circulation, resulting in 5-25% of cases in acute kidney injury. The incidence of drug-induced rhabdomyolysis is uncertain, because most of it is unreported. Rhabdomyolysis is a well-documented side effect related to the use of statins that gets even more frequent when combined with other CYP3A4 inhibitors. This case intends to highlight this complication of pharmacological interactions and the need for constant prescription revision.

945 / #EV1273

THE DESCRIPTION OF THE QT INTERVAL IN THE ELECTROCARDIOGRAM: A NEGLECTED PENDING TASK

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Background and Aims: The description of the prolonged QT interval on the electrocardiogram is essential in medical care. The objective is to assess the description of the QT interval on the electrocardiogram in patients admitted to the Internal Medicine Department of a tertiary hospital.
Methods: Retrospective study of patients admitted to the Internal Medicine Department of the Navarra Hospital Complex during the month of September 2019.
Results: During the period studied, 304 patients were admitted to the Internal Medicine Department, of which 60 (20%) had an elongated QT interval.
Of these 60 patients, 38 were male (63%) and 22 were female (27%), with an average age of 73 years. In 29 of the 60 patients (48%) the prolonged QT interval was described by a physician on the electrocardiogram, while in 31 patients (52%) there was no description of the QT interval. Among the 60 patients with prolonged QT interval on admission, 31 patients received drugs associated with QT prolongation during admission. The drugs most prevalently associated with QT prolongation taken by these patients on an outpatient basis were mirtazapine in 6 patients (40%) and amiodarone in 5 patients (33%). While the drugs most prevalently associated with QT prolongation received by these patients during admission were quinolones in 5 patients (33%) and haloperidol in 4 patients (27%). In our sample no patient presented with a ST.
Conclusions: The description of the QT interval is a key issue in medical care, although it is not routinely performed on the internal medicine inpatient ward.

1984 / #EV1274

CONSTRICTIVE PERICARDITIS: A CHALLENGING DIAGNOSIS OF SARCOIDOSIS

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Case Description: A 37-year-old African man was admitted to our ward for ascites, lower limbs edema, dyspnea and jugular swelling. Biochemical revealed increased AST, GGT and ALP and reduced cholinesterase. ECG showed sinus rhythm with low voltage and chest-X-ray showed small right pleural effusion.
Clinical Hypothesis: Cirrhosis, heart failure, autoimmune disease.
Diagnostic Pathways: Total-body CT scan with contrast showed mediastinal lymphadenopathy and hepatic stasis. Viral, metabolic and autoimmune causes of liver disease were ruled out. PET scan confirmed increase of radiotracer in mediastinal and supraclavicular lymph nodes and intense fixation around the heart. Given the clinical presentation, echocardiography was performed and was compatible with constrictive pericarditis. As for the lymphadenopathies, Quantiferon test resulted positive without finding *Mycobacterium tuberculosis* (MT) in biological liquids. Paracentesis excluded ascites infection or malignant tumor cells. Since transient elastography revealed increased liver stiffness, liver biopsy was performed showing non-necrotizing granulomas with centrolobular damage of vascular origin. Lymphoproliferative disease and tuberculosis were excluded by both supraclavicular and mediastinal lymph node biopsies. Finally, a diagnosis of exclusion of sarcoidosis was done and the patient was treated with diuretics and high-dosage-steroids with improvement in clinical condition.
Discussion and Learning Points: Our case illustrates the complex diagnostic pattern when facing diseases as sarcoidosis and tubercolosis. Despite investigations were negative for MT, given Quantiferon positivity, a constant clinical alert should be maintained over time. Constrictive pericarditis caused by MT is common, however sarcoidosis is a rarer pathogenetic agent with only few cases described in literature.

 DOI: 10.12890/2022_V9Sup1

2661 / #EV1275

SEVERE HYPOCALCAEMIA SECONDARY TO IATROGENIC HYPOMAGNESEMIA

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Case Description: Female, 68 years old, with hypertension and dyslipidemia, treated with antihypertensives and a proton pump inhibitor (PPIs). The patient presents with tetany (positive Chvostek sign on the left), generalized tremulousness, and QT prolongation.
Clinical Hypothesis: Given the typical findings described in the case, the most likely diagnostic hypothesis will be symptomatic hypocalcemia. This can have various causes: hypoparathyroidism, secondary hyperparathyroidism (pancreatitis, sepsis, hyperphosphatemia, renal disease), hypomagnesemia, drugs.
Diagnostic Pathways: Analytical study with hypocalcemia associated with severe hypomagnesemia and hypokalemia. Normal parathyroid hormone (PTH), phosphorus, thyroid function, and calcitonin. Vitamin D deficit. No changes in blood count, no renal dysfunction, no elevation of inflammatory parameters. Normal liver and pancreatic parameters. Imaging scans only slightly enlarged and heterogeneous thyroid; no other changes.
Discussion and Learning Points: Symptomatic severe hypocalcemia is rare and may have several causes. The major factors that influence the serum calcium concentration are PTH, vitamin D, the calcium ion itself, and phosphate. The described case shows a picture of hypocalcemia, without PTH alterations, probably secondary to hypomagnesemia. This, given the patient's history and the exclusion of other possible causes, is probably attributed to the use of PPIs. The patient showed progressive improvement of symptoms and normalization of ions after supplementation and suspension of the drug. This case emphasizes the importance of appropriate prescribing, as the patient would not indicate regular PPI. And also, to the importance of always considering iatrogenesis as a cause of the condition.

1680 / #EV1276

THE CLUE IN THE PAST MEDICAL HISTORY - OSTEOMYELITIS

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Case Description: A 37-year-old man with history of epiphysiolysis with distal femur fixation in 2002 and total left hip replacement in 2005, presented with a 2-month history of left thigh pain with extension to the knee. He denied systemic symptoms or recent trauma. The pain was progressively worse with the need of strong opioid and nonopioid. On physical examination the region above the knee was tenderness without inflammatory signs and no pain on hip rotation. Inflammatory markers were elevated but blood cultures were negative. He had been consulted previously and brought a bone scan showing high osteoblastic activity in the distal end of the femur.
Clinical Hypothesis: Our main hypothesis was osteomyelitis. However, due to the longing history of pain, with absence of systemic symptoms, it would be important to exclude a possible osteosarcoma.
Diagnostic Pathways: Magnetic resonance imaging showed a 6 cm medullary lytic area with mild sclerosis and periosteal reaction in the lower half of the femoral diaphysis. Bone biopsy was concordant with the diagnosis of osteomyelitis with isolation of Methicillin-sensitive Staphylococcus aureus.
Discussion and Learning Points: This case is important to highlight the importance of the differential diagnosis and past medical history. In our case, repeated blood cultures were negative; no history of trauma; no recent inoculations and there were no signs or history of local skin infections. When reviewing the patient's past history, we noted that the location of the osteomyelitis coincided with the location of fixation of the left femur in 2002. He was started on antibiotics but required debridement to control the infection.

1381 / #EV1277

THE EFFECTS OF LAMOTRIGINE

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Case Description: A 34-year-old woman, autonomous, with a personal history of depression, medicated with 60 mg of duloxetine and 100 mg of lamotrigine initiated fifteen days before, arrived at the emergency services with intermittent fever, with eight days of evolution, that would not totally subside to antipyretics. The patient denied myalgias, cough, sputum, abdominal pain, genitourinary symptoms, lipothymia and syncope episodes. Gastrointestinal symptoms were also denied. The patient resides in an urban area, with no consumption of non-potable water or contact with pets. At the time of the admission, she was normotensive, tachycardiac and with a axillary temperature of 38.9ºC. The objective exam showed no relevant alterations.
Clinical Hypothesis: Analytically, the patient presented hypochromic microcytic anemia with a hemoglobin value of 10.8 mg/dL and a PCR of 213 mg/dL, with no alterations of the kidney or hepatic functions. Type II urine, with no alterations and a thoracic-abdominal-pelvic CT was performed with no relevant alterations. A lumbar puncture was performed on admission without evidence of spinal fluid protein concentration.
Diagnostic Pathways: The patient was admitted to the internal medicine care unit for an unfocused fever. During hospitalization,

 DOI: 10.12890/2022_V9Sup1

the study performed showed: negative viral markers, no consumption of complement or immunoglobulin values decreased. Negative atypical microorganism research and no isolation in blood cultures and urine cultures. A myelogram was performed with myelocultures without changes. A TT echo shoed no alterations compatible with endocarditis.
Discussion and Learning Points: During hospitalization, the patient didn't express any focused complaints, was hemodynamically stable and in apyrexia after discontinuation of lamotrigine.

962 / #EV1278

RELATIONSHIP BETWEEN MALNUTRITION AND SHORT TERMS OUTCOMES IN INTERNAL MEDICINE INPATIENTS

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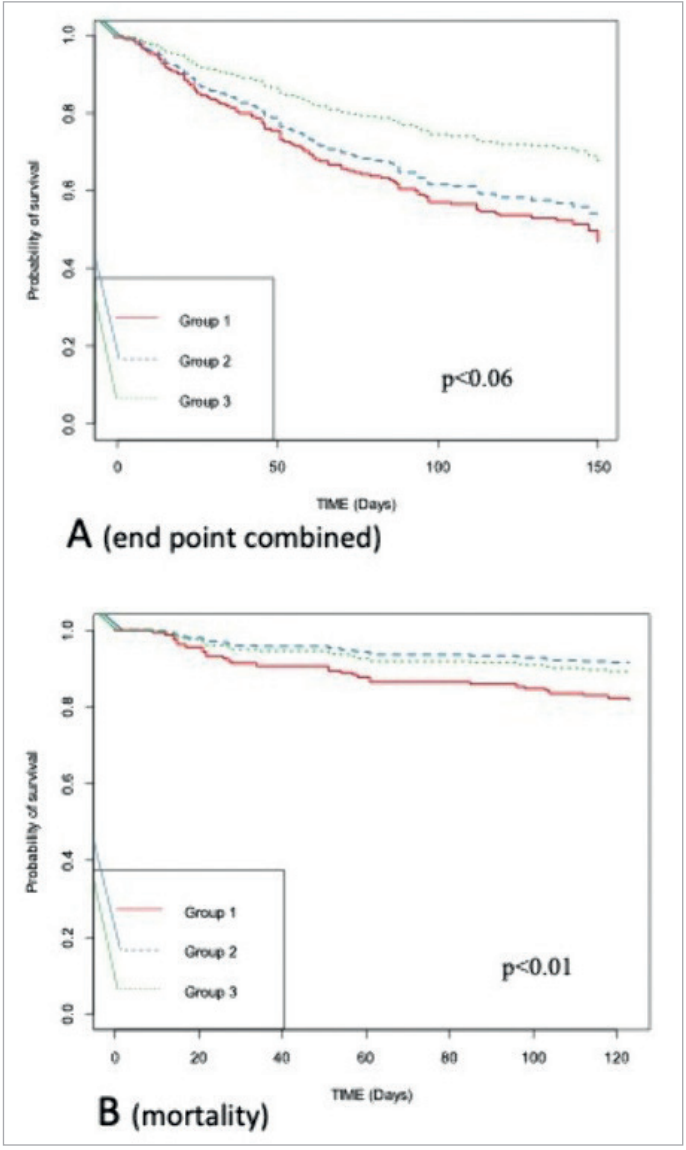
Background and Aims: To estimate the prognosis of malnutrition/ sarcopenia during three months follow up among patients admitted in internal medicine and that were discharged.
Methods: Observational study (1/05/2021-30/09/2021). We successively included patients (>18 years) admitted to internal medicine wards who did not die during the admission. Variables: clinical and anthropometric variables were obtained in the first 48h. We used MNA-SF questionnaire for malnutrition and both SARC-F questionnaire (>4, <4 high/low risk) and Grip strength (Jamarr Plus+ Dynamometer) for sarcopenia according EWGSOP (European Working Group on Sarcopenia in Older People) recommendations by BMI. We followed up during the patients three month after discharge. Patients were stratified into three groups according to MNA-SF scores (0-7 undernutrition, 7-11 high risk, 12-14 normal). Qualitative variables were compared using the chi-square test and Quantitative with Kruskal-Wallis. To compare the MNA groups during de follow-up we built a Kaplan Mayer curves compared by Log Rank according to a combined primary end point (total mortality and readmission). Later we built a Cox regression analysis. We considered a p value <.05 as significant. The software package used was R (R proyect for statistical computing).
Results: We included 294 patients, 53.4% female, median age 79(16) year. The baseline findings according to MNA-SF groups are shown in Table 1. 19.4% of the malnourished patients died during the follow up; 46.6% and 39.6% of patients in groups 1-2 respectively were readmitted (Figures 1-2).
Conclusions: Malnourisment and high risk malnutrition were associated with poor prognosis in inpatients of internal medicine wards.

Parameter	Group 1 MNA-SF 0-7	Group 2 MNA-SF 8-11	Group 3 MNA-SF 12-14	P
N	103	117	74	
Age (years)	80 (14)	79 (15)	74.5 (17)	0.003
Body Weight (kg)	58 (16.4)	65 (21.8)	75.3 (18.7)	<0.00
BMI (Kg/m²)	22.4 (7.5)	25.5 (7)	28.2 (6.7)	<0.00
Arm Circumference (cm)	25 (5.5)	27 (4.6)	29 (5)	<0.00
SARC-F ≥4 <4	7 (12.3) 50 (87.7)	93 (45.8) 110 (54.2)	64 (80) 16 (20)	0.000 0.000
Dynamometry (kg)				
Mean	15.7 (19.5)	24.7 (19.6)	28.7 (22.5)	<0.00
CV	0.2 (0.3)	0.2 (0.1)	0.2 (0.2)	0.006
SD	5 (5)	5 (4)	6 (6)	0.04
3- month Mortality	20 (19.4)	9 (7.7)	9 (12.2)	0.03
3- month Readmissions	48 (46.6)	46 (39.3)	20 (27)	0.03
HBP	74 (71.8)	85 (72.6)	61(82.4)	0.2
T2DM	46 (44.7)	51 (43.6)	34 (45.9)	0.9
Dyslipidemia	50 (48.5)	57 (48.7)	48 (64.8)	0.05
Ethylism	2 (1.9)	14 (11.9)	16 (21.6)	0.0002
Smoker	13 (12.6)	17 (14.5)	16 (21.6)	0.24
Liver diseases	9 (8.7)	8 (6.8)	4 (5.4)	0.7
Heart failure	28 (27.2)	37 (31.6)	26 (35.1)	0.5
Cardiovascular Diseases	35 (33.9)	33 (28.2)	35 (47.3)	0.02
COPD	21 (20.4)	29 (24.8)	12 (16.2)	0.35
Chronic Kidney disease	24 (23.3)	29 (24.8)	21 (28.4)	0.7
Cancer	24 (23.3)	22 (18.8)	14 (18.9)	0.6
Charlson Index	6 (3)	6 (3)	5.5 (3)	0.09
Totals proteins (g/dl)	6.3 (1.4)	6.2 (1)	6.4 (1.2)	0.16
Albumin (g/dl)	3.5 (0.9)	3.7 (0.6)	3.8 (0.7)	<0.00
Total Lymphocytes (million/mm³)	1.3 (1.1)	1.4 (1)	1.4 (1.1)	0.6
Hemoglobin (g/dl)	11.4 (3.3)	12.1 (3.1)	12.4 (3.8)	0.01

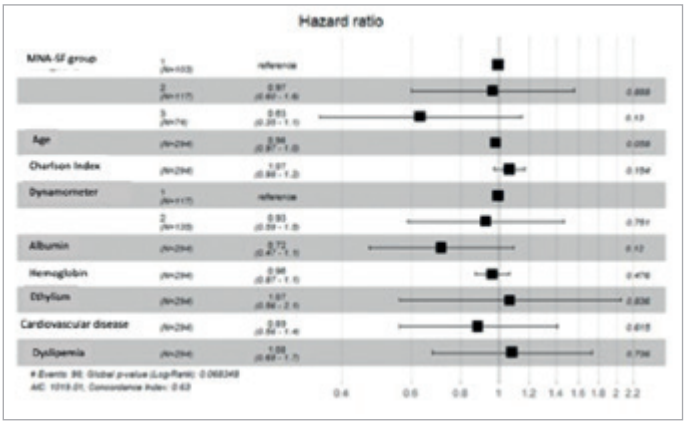
BMI: body mass index; COPD: chronic obstructive pulmonary disease; CV: coefficient of variation; HBP: High blood pressure; SD: standard deviation; T2DM: type 2 diabetes mellitus.

#EV1278 Table 1.



#EV1278 Figure 1: Kapplan Mayer curves according to combined primary end point (A) and to all cause mortality (B).

DOI: 10.12890/2022_V9Sup1



#EV1278 Figure 2: Cox Regression analisys according preespecified variables (p<0.1 in univariate analisys).

417 / #EV1279

TARGETED EDUCATION CAN IMPROVE DIAGNOSTIC CONFIDENCE AND ACCURACY IN DERMATOLOGY REFERRALS

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Background and Aims: Hospital doctors find it challenging to correctly diagnose and appropriately refer common benign and malignant skin lesions. This study aimed to improve the appropriateness of dermatology referrals of commonly encountered skin lesions in a 255-bedded University Teaching hospital.

Methods: A series of dermatology images of melanoma, non-melanoma malignancies, actinic keratosis and benign lesions were presented in a quiz format to medical doctors of all grades. Dermatology experience, confidence in lesion recognition and decision for dermatology referral were surveyed pre-teaching. A teaching session with follow-up quiz and self-assessed confidence of lesion recognition and diagnosis was surveyed. Comparison of pre and post quiz scores were analysed using descriptive statistics.

Results: 24 medical doctors participated. 96%(n=23) had no prior dermatology experience. Following teaching, 61%(n=14) expressed feeling confident in their diagnosis of presented images, compared with 17%(n=4) pre-teaching. The follow-up quiz showed a global 24% increase in lesion recognition. Correct referral of actinic keratosis improved from 79% to 100%, acral melanoma improved from 75% to 90%, melanoma referral improved from 77% to 93% and basal cell carcinoma referral improved from 88% to 100%. 91%(n=21) found the teaching session helpful for future practice.

Conclusions: The teaching session with follow up quiz demonstrated an improvement in general medical doctors' ability in both accurate diagnosis and referral of common skin lesions. This highlights the need for regular dermatology teaching in hospitals. Inclusion of targeted dermatology teaching should form part of departmental teaching.

1278 / #EV1280

HYPOGAMMAGLOBULINEMIA PREVALENCE IN A COHORT OF INPATIENTS AT THE INTERNAL MEDICINE DEPARTMENT OF A SPANISH HOSPITAL

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Background and Aims: Immune system can be affected by many conditions increasing susceptibility to infections, among others. Hypogammaglobulinemia which can be a primary or secondary disorder, is one of these immunodeficiencies disorders. The prevalence of this entity is unknown. The aim of this study was to establish the prevalence of hypogammaglobulinemia in internal medicine patients in a tertiary hospital in Madrid (Spain), and to describe the associated pathologies with this condition.

Methods: We performed a descriptive cross-sectional study with hospitalized patients at the Department of Internal Medicine throughout 2019. Sex, age, length of hospitalization, protein electrophoresis values at admission, and main diagnosis were collected as variables for the study. We defined hypogammaglobulinemia if the value of gammaglobulines was below 800 mg/dL.

Results: A total of 1083 patients were included. The median age was 84 years (P25-P75:76-89) and 54% were women. The prevalence of hypogammaglobulinemia was 31,9%, CI 95% (29-35%). The group of patients with hypogammaglobulinemia, the most frequently main diagnosis was "infectious diseases" (47,7%). The association between "intestinal infections" and hypogammaglobulinemia was statistically significant (p=0,04). The median of hospitalization length in patients with hypogammaglobulinemia was one day higher than the median of this variable in all patients, but it does not achieve statistical significance (p=0,07).

Conclusions: The hypogammaglobulinemia prevalence in this study doubled the reported prevalence in other studies. It would be necessary other studies to define the causes of hypogammaglobulinemia and the relation to prognosis in these patients.

657 / #EV1281

COMPLEXITY ANALYSIS IN TEMPERATURE CIRCADIAN RYTHMS

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Background and Aims: In recent years the circadian dysregulation of physiological processes has been demonstrated in many diseases. Different mathematical approaches have been used successfully to analyze the disruption in daily cycles. Other procedures for time series analysis such as complexity methods

 DOI: 10.12890/2022_V9Sup1

can provide more accurate information. Our aim is to analyze the complexity of human temperature time series throughout the day, and their relationship with other physiological variables.
Methods: Prospective observational study of outpatients approved by the hospital's ethical committe. Patients older than 18 years without inflammatory or vascular alterations were collected. We also collect patient's data such as age, BMI and Charlson index. We placed a tympanic and a skin thermometer probe in the patient connected to a temperature holter. This device records one measurement of temperature per minute throughout 24 hours.
Results: We collected 15 temperature series. The complexity of the tympanic temperature, measured with ApEn, was higher than the complexity of the skin temperature (0.49 vs 0.27; $p<0.05$). ApEn of both temperatures was higher during the wakefulness than during sleep (0.56 vs 0.35; $p<0.05$ for tympanic, and 0.32 vs 0.26; $p<0.05$ for skin temperature). Complexity of the tympanic temperature was negatively correlated with the Charlson index ($r= -0.64$; $p<0.05$). The loss of complexity in relation to age (rho -0.60; $p<0.05$) was greater during sleep (rho-0.68; $p<0,05$).
Conclusions: Complexity analysis of temperature series showed significant variation with the circadian cycle in the group of study. Higher comorbidity and age were associated with reduced complexity of body temperature.

229 / #EV1282

OBSERVATIONAL SURVEY ON MEDICAL UPDATING AND ON THE USE OF DECISION-MAKING SUPPORTS IN CLINICAL PRACTICE

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Background and Aims: Assimefac carried out an observational survey on the training needs and methods, preferred by doctors, for their fulfillment, as well as the need for information support in daily practice.
Methods: An anonymous questionnaire of thirteen questions was administered, made available for 10 days on the Home Pages of ASSIMEFAC and the Italian Doctors Syndicate, as well as on Social Network pages of groups dedicated exclusively to doctors.In all, 144 Doctors from all over Italy responded.
Results: The largest percentage of doctors who took part in the survey is made up of general practitioners, males and older than 51 years. 68,8% said they preferred to attend conferences or ECM courses in presence. 61,8% of Doctors declare that they often need information based on scientific evidence and they retrieve this information on medical websites (66%), considering it very useful (81.3 %) to have access to databases. 72.9% of the interviewees declare that they consider it a very useful service, by Scientific Societies/Local Health Authorities/Hospitals, to provide subscriptions for consulting databases and 84.7% are in favor of innovative updating methods to obtain a better performance.
Conclusions: The survey highlighted the need to be able to access IT tools for easy consultation, as a decision support in clinical practice.Doctors participating in the researchdeclared that, among other forms of updating, they prefer participation in conferences, conventions and/or ECM courses in attendance and said they were ready for innovative forms of continuing education in medicine.

1702 / #EV1283

DISCUSSING CARE DECISIONS AT THE INTERNAL MEDICINE OUTPATIENT CLINIC: A CONVERSATION ANALYSIS

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Background and Aims: Care decision conversations during medical consultations aim to enable patients to define goals and preferences for future care. This topic is often postponed until the end-of-life. If such discussions are not timely, they take place in far from ideal circumstances (e.g. an acute setting in the emergency department). The outpatient clinic seems better suited to such conversations. We aimed to explore how often, when and how care decisions are discussed during consultations at an internal medicine outpatient clinic, and what we can learn from these observations.
Methods: Qualitative analysis of 150 video-taped consultations. Consultations involving a discussion of care decisions were analyzed using conversation analysis.
Results: 1) Only 21 of the 150 consultations involved a discussion of care decisions; 2) As there is no destined phase for the introduction of the topic of care decisions, the topic is most often introduced at the end of the phase "treatment and course of the disease"; 3) A lot of interactional effort is needed to create common ground and make relevance clear with extensive justification. Hesitation markers, repairs and hypothetical talk show the precariousness of the topic.
Conclusions: Three dilemma's need to be addressed: 1) a slot has to be created to introduce the topic of care decisions; 2) common ground has to be created, possibly over time; 3) the paradox of framing the topic as relevant 'in the future' but 'needs to be discussed now' needs to be attended. We recommend that physicians' training should address the three dilemma's.

 DOI: 10.12890/2022_V9Sup1

147 / #EV1284

MEDICAL CARE IN THE DEVELOPMENTALLY DISABLED ADULT

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Case Description: Patient is a 25 year old female with diabetes mellitus, autistic disorder and mood disorder. She has received psychiatric and behavioral intervention in a highly specialized clinic for patients with neurodevelopmental disorders for severe challenging behaviors since she was 12 years old. Has attended appointments with endocrinology, ophtalmology and gynecology. None of those have resulted in a complete physical exam. She receives annual dental care at a hospital under moderate sedation.

Clinical Hypothesis: This case is concerning as access to medical care and preventative measures of a chronic illness are affected by her inability to participate in medical visits due to her challenging behaviors and the reality that most medical providers do not receive training in neurodevelopmental disabilities and might be uncomfortable completing physical examinations in this population. This extends to subspecialty care as well as gynecologists and other healthcare professionals like dentists, nutritionists and nursing.

Diagnostic Pathways: At 250 lbs. with abnormal HbA1c and lipid profile. No full physical examination has been completed to monitor the presence of diabetes comorbidities (retinal, extremities).

Discussion and Learning Points: This case illustrates the importance to include education during clinical training on providing care to individuals with neurodevelopmental disabilites. As life expectancy has increased in the general population it brings up the reality of aging individuals with challenging behaviors that will require medical care through their lifespan that will be excluded from access to care due to their disability.

528 / #EV1285

CLINICAL PROFILE AND MANAGEMENT IN CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION IN A REFERENCE UNIT

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Background and Aims: Chronic thromboembolic pulmonary hypertension (CTEPH) is a severe disease which constitutes the only curable cause of pulmonary hypertension. Despite this, CTEPH epidemiological and clinical studies are scarce. The aim of this study was to describe the differences in the therapeutic strategy according to the patient's clinical profile.

Methods: An observational, retrospective and monocentric study was designed with a sample constituted by the cohort of 455 patients diagnosed of CTPEH from 2007 to 2019 in the Pulmonary Hypertension Unit of the 12 de Octubre Hospital. A hypothesis contrast (chi2, T-student or ANOVA) and a multivariate analysis were carried out among the surgery and not surgery groups.

Results: In our hypothesis contrast (Table 1A,B) patients receiving surgery were younger (CI95%[52.53; 56.17]vs[61.80; 65.67], p<0.05), there were more males (52.79% vs 35.16%, p<0.05) and had a better 6-minute walk test score (CI95%[378.28; 417.48] vs[342.31; 374.991],p=0.002). In the multivariable study (table 2) thrombophilia (OR=2.33, CI95% [1.25;5.00], p=0.009) and simple therapy (OR=3.33, CI95% [1.53;7.26], p=0.02) were predictor factors for surgery. However, the age (OR=0.95, CI95% [0.93;0.98], p>0.05), cancer (OR=0.23, CI95%[0.08;0.63], p=0.004), NYHA class II (OR=0.17, IC95%[0.03:0.97], p=0.047) and triple therapy (OR=0.08, CI95%[0.02;0.47], p=0.005) decreased the possibilities of surgery.

Conclusions: We conclude that patients receiving thromboendarterectomy were younger, there were more men and smokers and had a better 6-minute walk test score; as well as, less hypertension and dyslipidemia. Furthermore, they suffered more thrombophilia and DVT but less cancer. Finally, thrombophilia disorders and simple therapy constituted surgery predictors in the multivariate model. On the other hand, the age, cancer, NYHA functional class II and triple therapy decreased the possibility of receiving chirurgic treatment.

	QUALITATIVE VARIABLES		
	SURGERY (n=235)	NO SURGERY (n=220)	
	N (%)	N (%)	p
Gender (male)	123 (52.79)	77 (35.16)	0.000
Diabetes	23 (9.80)	29 (13.18)	0.157
Arterial hypertension	85 (36.21)	101 (45.91)	0.035
Dyslipidaemia	51 (21.72)	68 (30.89)	0.016
Smoker	96 (40.79)	51 (23.22)	0.000
Cancer	25 (10.63)	38 (17.27)	0.041
Thrombophilia	83 (53.55)	43 (25.44)	0.000
PE	191 (81.97)	165 (75.69)	0.102
DVT	140 (64.22)	124 (53.22)	0.018
Syncope	32 (13.73)	18 (8.22)	0.062
NYHA class			
I	26 (11.16)	10 (4.59)	0.000
II	54 (23.18)	87 (39.91)	
III	141 (60.52)	113 (51.83)	
IV	12 (5.15)	8 (3.67)	
Oxygen before surgery	68 (29.18)	101 (45.91)	0.000
Diuretics	98 (42.06)	123 (55.91)	0.003
Simple therapy	89 (74.17)	31 (25.83)	0.000
Double therapy	32 (41.03)	46 (58.97)	0.043
Triple therapy	4 (1.72)	19 (8.74)	0.001

#EV1285 Table 1A: Hypothesis contrast: qualitative variables.

DOI: 10.12890/2022_V9Sup1

	QUANTITATIVE VARIABLES						
	SURGERY			NO SURGERY			
	N	X̄ (DE)	CI 95%	N	X̄ (DE)	CI 95%	p
Age (years)	235	54.35 (14.17)	52.53;56.17	220	63.68(14.93)	61.80; 65.57	0.000
BMI (kg/m^2)	229	27.83 (4.75)	27.21;28.45	180	28.54 (5.09)	27.80;29.29	0.143
TMEM (m)	157	397.88 (124.31)	378.28;417.48	266	358.81 (118.68)	342.31; 374.91	0.002
DLCO/VA ($ml\ min^{-1}\ mmHg^{-1}$)	95	72.54 (15.28)	69.42;75.65	131	70.55 (17.57)	67.51;63.59	0.377
FVC (%)	131	84.82 (13.32)	82.51;87.12	177	91.67 (20.35)	88.65;94.69	0.001
FEV 1 (%)	135	80.81 (14.48)	78.34;83.27	179	87.33 (19.01)	84.62;90.14	0.001
BTproBNP (pg/ml)	147	1480.02 (2092.96)	1139.75;1822.08	201	1248.02 (2320.39)	925.28;1570.75	0.336
TAPSE (mm)	165	17.32 (4.28)	16.66;17.97	212	18.29 (4.84)	17.64;18.95	0.047
CO (l/min)	222	4.31 (1.16)	4.15;4.46	218	4.46 (1.43)	4.27;4.65	0.204
mRAP (UW)	216	9.34 (5.35)	8.72;10.06	215	8.69 (4.78)	8.05;9.34	0.185
mPAP (mmHg)	233	46.69 (12.73)	45.05;48.33	220	45.41 (12.30)	43.78;47.06	0.279
PCP (mmHg)	223	10.30 (3.97)	9.77;10.82	216	10.94 (4.78)	10.30;11.58	0.125
Cindex ($l/min/m^2$)	215	2.36 (0.57)	2.28;2.43	200	2.42 (0.64)	2.33;2.55	0.312
PVR (UW)	206	9.45 (4.73)	8.80;10.10	218	8.88 (4.71)	8.36;9.61	0.314

#EV1285 Table 1B: Hypothesis contrast: quantitative variables.

	Univariate			Multivariable		
	OR	CI 95%	p	OR	CI 95%	p
Age	0.96	0.94;0.97	0.000	0.95	0.93;0.98	0.000
Gender	0.48	0.33;0.71	0.000	0.72	0.37;1.37	0.312
A. hypertension	0.66	0.45;0.96	0.03	0.94	0.47;1.87	0.858
DVT	1.59	1.09;2.31	0.016	1.14	0.59;2.20	0.689
Syncope	1.78	0.97;3.27	0.064	2.66	0.91;7.79	0.075
Cancer	0.57	0.33;0.98	0.042	0.23	0.08;0.63	0.004
Thrombophilia	2.33	1.55;3.51	0.000	2.5	1.25;5.00	0.009
TAPSE	0.95	0.91;0.99	0.043	1.02	0.96;1.10	0.500
FEV 1	0.98	0.97;0.99	0.001	0.99	0.97;1.01	0.241
NYHA class						
I						
II	0.24	0.11;0.53	0.444	0.17	0.03;0.97	0.047
III	0.48	0.22;1.04		0.46	0.09;2.41	0.355
IV	0.58	0.18;1.83				
Treatment						
No treatment						
Simple	3.27	2.02;5.30	0.000	3.33	1.53;7.26	0.02
Double	0.79	0.47;1.33	0.380	0.65	0.29;1.51	0.319
Triple	0.24	0.08;0.73	0.012	0.08	0.2;0.47	0.005
PVR	1.02	0.98;1.06	0.333			
CO	0.91	0.79;1.05	0.205			
mPAP	1.01	0.99;1.02	0.292			
PE	1.46	0.93;2.30	0.103			
NT pro BNP	1.03	0.94;1.14	0.469			

#EV1285 Table 2: Multivariable study.

1670 / #EV1286

SYSTEMIC INFLAMMATORY RESPONSE AND POLYSEROSITIS SECONDARY TO TREATMENT WITH DASATINIB

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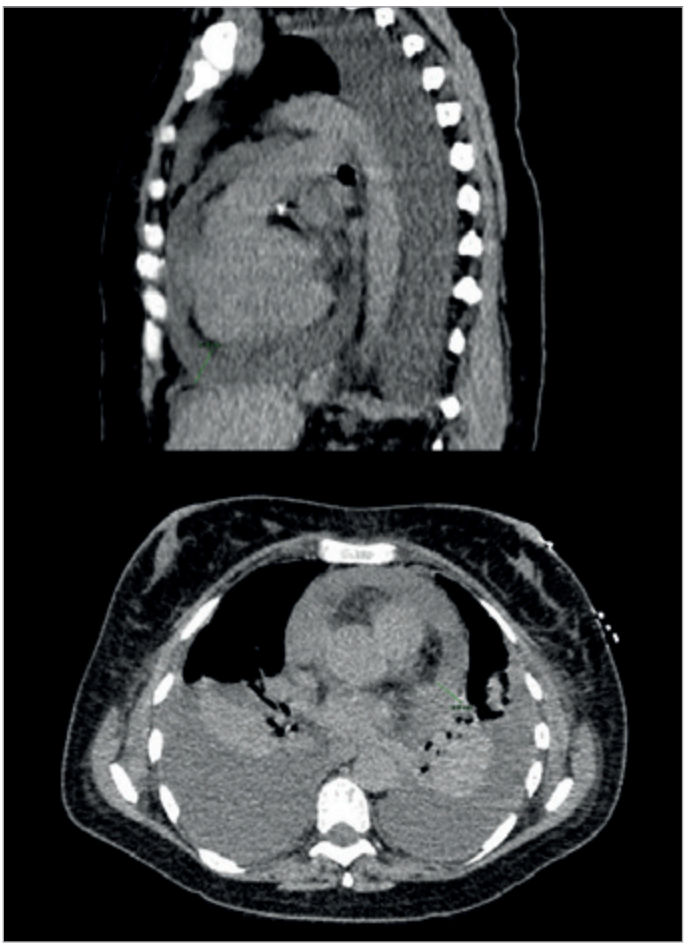
Case Description: A 55-year-old woman with chronic myeloid leukaemia on dasatinib (tyrosine kinase inhibitor) presented in January 2021 with mild bilateral pleural effusion and ascites, which resolved with low-dose oral steroids and withdrawal of dasatinib. Four months later she resumed dasatinib. A few days later, she presented to the emergency department complaining of fatigue and epigastralgia. On arrival she was hypotensive and complementary tests showed multiorgan failure: pH 7.1 (7.32-7.43); lactic acid 10.8 mmol/l (0.5-2); bicarbonate 13.8 mmol/l (22-26); lactate dehydrogenase 14,722 U/l (120-246); alanine aminotransferase 7,879 U/l (7-40); aspartate aminotransferase 14,023 U/l (13-40); troponin I 375,110 ng/l (<45,430); N-terminal type B natriuretic propeptide 11,764 pg/ml (<900); ferritin 3,600 ng/ml (8-252); C-reactive protein 316 mg/l (<5); procalcitonin 50 ng/ml (<0.1); leukocytes 85,000/µl (4,000-11,500); prothrombin time 48% (70-130). Imaging showed massive pleuropericardial effusion and moderate ascites (Figure 1).

Clinical Hypothesis: Suspecting septic shock without identifiable focus, empirical broad-spectrum antibiotics and steroids were initiated, and dasatinib was discontinued.

Diagnostic Pathways: The patient was admitted to the ICU and underwent urgent pericardiocentesis. Both pleural and pericardial effusions were consistent with inflammatory exudates. She had a favorable clinical course, and after cultures proved negative she was transferred to the ward. Steroids were tapered in the following days as the analytical abnormalities resolved. Due to persistent bilateral pleural effusion, she eventually needed a bilateral chest tube thoracostomy.

Discussion and Learning Points: Less than 1% of patients treated with tyrosine kinase inhibitors develop polyserositis, and cardiac tamponade is rare. In most cases, withdrawal or reduction of the drug is sufficient, but occasionally steroids and invasive procedures are required.

DOI: 10.12890/2022_V9Sup1



#EV1286 Figure 1.

696 / #EV1287

ADVERSE EFFECTS ASSOCIATED WITH LONG-STANDING PROTOM PUMP INHIBITORS

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Background and Aims: To evaluate the presence of adverse effects associated with the use of proton pump inhibitors (PPIs) with a duration of more than one year in patients admitted to our Internal Medicine ward.
Methods: A retrospective observational study of patients admitted between 01/09/2019 and 30/11/2019 analyzing age, sex, reason for admission, prescription of PPIs prior to one year of admission and possible adverse effects, such as nosocomial pneumonia, *C. difficile* infection, vitamin B12 deficiency, osteoporosis or hypomagnesemia.
Results: 839 patients were collected, 54.3% (452) men and 45.6% (379) women, mean age 80.29 years (median 85). The predominant reasons for admission were infections (22.7%; 189), pneumological (19.8%; 165) and cardiological (19%; 158) causes. 503 patients (60.5%) were prescribed PPIs for more than one year. Of these, osteoporosis was present in 7.2% (36) compared to 3.1% (10) in those who did not have PPIs. The prevalence of nosocomial pneumonia was 1.4% (7) in those who take it versus 1.2% (4) in those who do not. C. difficile infection occurs in 1% (5) versus 0.3% (1) and B12 deficiency is found in 3.2%(16) versus 2.2%(7). There were not enough Mg values collected to analize this variable.
Conclusions: The use of PPIs represented a paradigm shift in the presence of gastric pathology at the outpatient and inpatient levels. However, the apparent absence of adverse effects of this medication has led to its widespread use. The growing evidence of possible adverse effects associated with the aforementioned drugs means that we should rethink our treatment strategy in this regard.

1940 / #EV1288

STUDYING VASCULITIC LESIONS. COULD IT BE SCURVY?

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Case Description: 43-year-old man with relevant history of idiopathic pericardial effusion and familial spastic paraparesis. Given his history, he was referred to us from dermatology to evaluate skin lesions that the patient had been suffering from a year and study a possible vasculitic origin of its. On examination, he had multiple violaceous punctate lesions on both feet, some with small ulcers. The rest of the physical examination was normal. In the anamensis he denied symptoms suggestive of autoimmune diseases. During the interview we discovered that the patient had a diet lacking in fruits and vegetables.
Clinical Hypothesis: Could these lesions be the manifestation of a nutritional deficit?
Diagnostic Pathways: General laboratory tests were null. Acute phase reactants and D-dimer were not elevated. Serology and antibodies were negative. Echocardiography and CT angiography of the aorta were performed without relevant alterations. Biopsy of the lesions showed leukocytoclastic vasculitis. The most remarkable finding was a vitamin C deficiency.
Discussion and Learning Points: Following the diagnosis of vitamin C deficiency, treatment with ascorbic acid was initiated and the lesions remitted early. Scurvy is rare in developed countries, but it may occur in at-risk populations. In our patient, dietary deficiency was probably the main cause. The typical findings of scurvy are inconsistently present and can be subtle. Skin lesions with a purpuric appearance, together with the context of systemic disease that often accompanies vitamin C deficiency, can confuse us into thinking that we are dealing with a systemic vasculitis. A good clinical interview with an history of dietary habits is essential to establish suspicion.

 DOI: 10.12890/2022_V9Sup1

851 / #EV1289

COMPARATIVE ANALYSIS OF DRUG USE

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Background and Aims: The number of people that come to our Hospital because of the consumption of drugs of abuse continues to be significant. The publication of data on consumption collected in other hospitals that have participated with us in the Euro-DEN Registry, allows us to compare the profiles of drugs and users involved in different geographical areas. Our aim is to carry out a comparative analysis of the epidemiological, healthcare and clinical data of the cases of intoxication by drugs of abuse in our center during 2020 and the data collected in the Euro-DEN plus Registry.

Methods: 754 patients were included whose reason for consultation was directly related to the consumption of drugs of abuse, except for cases of isolated alcohol consumption 2020.

Results: 754 patients are collected, out of a total of 54,416 (1.38%), of which 70.92% are men and 29.18% women, with a mean age of 31.26 years, of which 82 admissions occurred (10.89%). There is a supremacy of the concomitant use of two or more toxins in 411 cases (54.58%), leading among them the bi-consumption of cocaine and methamphetamine, despite a mono-toxicity in 342 patients (45.42%). Among the series we found one death (0.13%) due to a Takotsubo syndrome.

Conclusions: There is a discrete change in trends in terms of previous series and those from other nationalities, which makes us think about new consumption patterns together with earlier ages of the same.

1058 / #EV1290

MTHFR677C>T MUTATION: A RARE ETIOLOGY OF THROMBOTIC PHENOMENA

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Case Description: A 26 year woman with type 1 diabetes mellitus, dyslipidemia and asthma was referred to the emergency room for right low back pain irradiating to the ipsilateral lower limb associated with swelling throughout the limb and inability to walk. The patient reported use of oral contraceptive with estrogen and recent foot sprain. On examination asymmetry of the lower limbs and direct and indirect signs of venous congestion of the right. Laboratory: leukocytosis and neutrophilia, D-dimer of 19.31 mg/dL. A thoracic-abdominal-pelvic CT extensive thrombosis of the inferior vena cava and right primitive iliac vein. Enoxaparin was initiated.

Clinical Hypothesis: The investigation carried out highlighted peripheral blood smear, renal/hepatic function, coagulation study and homocysteine within normal values. Thoraco-abdomino-pelvic CT without suspicious malignant masses, antiphospholipid antibody syndrome excluded and study of hereditary thrombophilias negative except for the identification of mutation MTHFR677C>T, homozygous variant of the gene encoding the enzyme methylenetetrahydrofolate reductase (MTHFR).

Diagnostic Pathways: The mutation of the gene is an independent risk marker for venous thromboembolism, causing hyperhomocysteinemia, which was not observed in this case.

Discussion and Learning Points: We intend to expose the importance of the etiologic study. Often there are several factors that justify thrombotic phenomena, exemplified in this case by the use of pill and the sprain associated with immobility, together with the endothelial alteration imposed by diabetes in a patient with MTHFR mutation.

2580 / #EV1291

MAY THURNER SYNDROME: CASE REPORTS

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Case Description: May-Thurner syndrome is an anatomical condition which can provoke deep vein thrombosis (DVT) in left lower limb.

Clinical Hypothesis: We present 11 cases of patients with May-Thurner syndrome who has been diagnosed or/and on follow up in monographic thromboembolic disease consultation.

Diagnostic Pathways: 9 of 11 were women. 10 of 11 have been diagnosed after an episode of DVT. One patient was diagnosed after an history of venous chronic insufficiency. All of them received enoxaparin as first treatment. An angio-CT and phlebography has been performed in all of them. Directed thrombolysis or angioplasty were done in 7 patients. Stenting in iliocaval segment were performed in 7 patients, of which 4 were permeably. Long term anticoagulation is present in 7 patients due to lack of permeability or/and other conditions.

Discussion and Learning Points: Our patients were diagnosed and treated following the current evidence available. May-Thurner is a rare condition that might be considered in unprovoked DTV patients on left lower limb.

DOI: 10.12890/2022_V9Sup1

1825 / #EV1292

THE CHANGING TIDE IN THE DIAGNOSIS OF DERMATITIS HERPETIFORMIS: OUR COMPLIANCE IN THE DIAGNOSIS, INVESTIGATION AND TREATMENT OVER 15 YEARS.

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Background and Aims: Our aim was to assess compliance in the diagnosis, investigation and treatment of Dermatitis Herpetiformis against changing recommendations at our centre over the last 15 years.

Methods: Retrospective analysis of a cohort of histologically confirmed DH patients (n=19) from 2006 to 2021. Data was collected from the dermatology database of letters, medical charts, laboratory and pathology systems.

Results: Patients who had skin biopsy with DIF 68% (n=13). DIF consistent with DH and positive anti-tTG antibodies accounted for 47% (n=9). 84% (n=16) were treated with Dapsone with good response. Patients compliant with GFD were 53% (n=10), 42% (n=8) saw an improvement with GFD. Patients who were referred to Dietician 26% (n=5), none had received followup at 6 months. A total of 57% (n=11) of patients had GI biopsy in order to confirm diagnosis which is no longer deemed necessary as per updated guidelines.

Conclusions: In conclusion, the importance of DH goes beyond the skin and immediate establishment of life-long GFD and regular follow up is necessary to prevent complications associated with CD, improve QoL and promote a positive impact on general health status.

2536 / #EV1293

A RARE CAUSE OF ORAL INTOLERANCE

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Case Description: A 73-year-old female with a history of familiar cerebellar atrophy was admitted to Internal Medicine due to persistent vomiting and oral intolerance to solids and liquids. A gastroduodenoscopy was performed, with the finding of a hiatal hernia, as well as a computed tomography, which was normal. Suspecting neurogenic dysphagia associated with cerebellar atrophy, a nasogastric tube was initially placed to feed the patient, followed by percutaneous endoscopic gastrostomy (PEG). Finally, tolerance improved by placing a perfusion pump. On discharge follow-up by Rehabilitation and Phoniatrics, the patient was finally diagnosed with sensory and reflex hyperreactivity to food, and later PEG tube could be removed and the patient was maintained on texture-adapted feeding.

Clinical Hypothesis: In case of repeated vomiting, the first test to be performed was an endoscopic study of the upper digestive tract, to rule out the main causes of oral intolerance or dysphagia, in addition to imaging tests, ruling out obstructive or organic causes.

Diagnostic Pathways: The definitive diagnosis was the result of the examination of oral and pharyngeal sensitivity, as well as palatal and gag reflexes, performed by a specialist in Phoniatrics.

Discussion and Learning Points: One of the limitations was that the patient's cognitive impairment due to her underlying disease prevented an adequate anamnesis. Although neurogenic dysphagia was a more plausible explanation as a consequence of the progression of cerebellar atrophy, in this case we reached a much less frequent diagnosis as a result of multidisciplinary collaboration.

2406 / #EV1294

IN THE SKYLIGHT OF THE PHARYNGEAL REFLEX

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Case Description: Dysphagia is a condition with a broad and challenging differential diagnosis. Characterizing it requires a systematized approach that integrates all elements of clinical history, time of evolution, type of food producing symptoms, temporal relationship with the swallowing phase, and associated symptoms. Differential diagnosis based on symptoms helps to ensure that rarer causes are not forgotten. We present the case of an 85-year-old man with high vascular risk who went to hospital for progressive dysphagia, initially for liquids and later also for solids with two weeks of evolution. He underwent upper digestive endoscopy that ruled out obstruction and cranial computed axial tomography scan that showed no alterations namely of the brainstem. At our objective examination in addition to oropharyngeal dysphagia, marked dysphonia with hoarseness and an abolished gag reflex on the left was noted. Subsequently, paralysis of the left vocal cord was found. After extensive investigation and multidisciplinary approach the diagnosis of idiopathic paralysis of the left vagus nerve and its recurrent laryngeal branch was assumed. Unilateral vocal cord paralysis is an entity with great repercussion on the quality of life of patients. Its approach, conservative or surgical, aims at symptomatic relief. Speech therapy particularly in cases of unilateral paralysis plays a central role in allowing satisfactory contralateral glottal compensation in the majority of patients. Its timely initiation boosts higher recovery rates.

Clinical Hypothesis: Ischaemic cerebrovascular disease; foreign body obstruction of the airway; amyotrophic lateral sclerosis.

Diagnostic Pathways: High digestive endoscopy, cranioencephalic

 DOI: 10.12890/2022_V9Sup1

and thoracic-cervical computed axial tomography, cranioencephalic nuclear magnetic resonance, electromyography
Discussion and Learning Points: The importance of semiology, objective examination and multidisciplinarity.

691 / #EV1295

PROPER USE OF PROTOM PUMP INHIBITORS IN OUR INTERNAL MEDICINE WARD

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Background and Aims: Evaluate the prescription of proton pump inhibitors (PPIs) in patients admitted to our Internal Medicine ward and verify their adequate indication based on current clinical evidence.
Methods: A retrospective observational study of patients admitted between 09/01/2019 and 11/30/2019 was carried out, analyzing age, sex, reason for admission and criteria for the prescription of PPIs.
Results: Data were collected from a total of 831 patients, being 54.3% (452) men and 45.6% (379) women with a mean age of 80.29 years (median 85 years). The predominant reasons for admission are infections (22.7%; 189), pneumological (19.8%; 165) and cardiological (19%; 158) causes, followed by digestive (13.8%), neurological (6%) and nephrological (5.5%). PPIs are prescribed to a total of 673 (80.9%), presenting an indication a total of 653 patients (97.6%). On the contrary, of the 158 patients who do not take PPIs, 109 (68.9%) have risk factors for peptic ulcer and should have been prescribed such medication.
Conclusions: The use of PPIs represented a paradigm shift in the incidence of gastrointestinal bleeding in hospitalized patients. However, the apparent absence of adverse effects of this medication has caused its use to become widespread, sometimes with a doubtful indication. Data from our center show that a huge percentage (80.9%) of admitted patients receive these drugs, but nevertheless the indication is adequate in up to 97.6%. It is striking that in that 19.1% of patients who do not take it, there should be a prescription in up to 68.9%, which should make us review the treatments upon admission.

1208 / #EV1296

"A DIFFERENT DRESS"

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Case Description: A 37-year-old woman resorted to the Emergency Department (ED) due to pruriginous exantema in the inframamarian region, abdominal folds and perineal region over the past month. A diagnosis of secondary bacterial infection after intertrigo was assumed. Concomitantly an uncomplicated cystitis was diagnosed. The patient was admitted in domiciliary Hospitalization and medicated with clindamycin and ceftriaxone. Five days later, she resorted to the ED, due to generalized desquamative maculo-papular erythema across affecting more than 80% of the body surface, edema of the face and pustules on the inner face of the thighs, sparing the oropharynx and the eyes. There was no evidence of fever or acute skin failure. Lab results showed peripheral eosinophilia, elevated transaminases and elevation of inflammatory parameters.
Clinical Hypothesis: Infectious, autoimmune and neoplastic etiologies were excluded.
Diagnostic Pathways: A skin biopsy was compatible with pustular dermatosis. A diagnosis of an overlap syndrome between drug reaction with eosinophilia and systemic symptoms (DRESS) and acute generalized exanthematous pustulosis (AGEP) was made – there was a favourable outcome under oral corticosteroid therapy.
Discussion and Learning Points: Severe cutaneous adverse reactions to drugs (SCARs) include AGEP, DRESS and epidermal necrolysis (Stevens-Johnson syndrome). Due to the varied initial presentation of such SCARs, diagnosis may be difficult and there is much overlap among them. DRESS has up to 20% mortality and carries a risk of autoimmune conditions, while AGEP tends to be benign and carry no sequela. Therefore it´s important to be aware of these overlapping features in order to avoid pitfalls in diagnosis and treatment.

781 / #EV1297

ANGIOTENSIN RECEPTOR BLOCKER INDUCED ANGIOEDEMA

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Case Description: 62-year-old man, presenting with macroglossia minutes after taking anti-hipertensive medication, hypertensive (152/71 mmHg), without erythema, urticaria or bronchospasm. Personal history of hipertension and thoracic aortic aneurysm dissection. Medicated since 2013 with carvedilol qd, amlodipine

 DOI: 10.12890/2022_V9Sup1

qd, lysin acetilsalicilate qd, telmisartan + hydrochlorothiazide qd and atorvastatin qd.
Clinical Hypothesis: Anaphylactic shock, angioedema.
Diagnostic Pathways: Initially medicated with epinephrine, hydrocortisone and clemastine without effect. Then medicated with 30mg of bradykinin β2 receptor antagonist (icatibant) with marked decrease of edema. Discharged after 48h, medicated with amlodipine qd, indication to suspend angiotensin receptor blockers (ARB) and oriented to immunoallergology appointment.
Discussion and Learning Points: Angioedema is a rare complication of angiotensin-converting enzime inhibitors, occurring in 0.1 to 0.7%. Cases of angioedema induced by ARB are even rarer with an estimated prevalence of 0.11%. It consists of an asymmetric, nonpitting swelling of the subcutaneous/submucosal tissues that most commonly affects nondependent areas and an absence of urticaria, bronchospasm or other allergic reactions. Although individual risk is low, the frequente prescription of ARB increases the number of cases. Bradykinin associated edema develops in an interval of minutes to hours, with resolution between 24-72 hours, but it can last for a week even with the suspension of the drug. In this type of angioedema, the relationship between the trigger and the onset of symptoms is often not clear and may occur years after the use of medication. Treatment depends on angioedema severity, consisting essentially of preventing airway compromise, control of acute symptoms and discontinuation of the medication.

829 / #EV1298

PAROTID HYPERTROPHY ASSOCIATED WITH HYPERFUNCTION

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Case Description: 32-year-old woman, previously healthy, no history of usual medication, referred for an Internal Medicine appointment due to a 3-month evolution of bilateral facial edema, associated with pain and sialorrhea.
Clinical Hypothesis: Parotid tumor, autoimmune/infectious/inflamatory process.
Diagnostic Pathways: Initially carried out an analytical study that excluded autoimmune and infectious causes. Then performed an imaging study with computerized tomography and soft tissue ultrasound, with no anomalies detected. The case was discussed multidisciplinary with Otorhinolaryngology and Physiatrics and a therapeutic test with corticosteroids was carried out, with no clinical improvement. It was decided to proceed with an aspiration biopsy which turns out to be negative. Finally, therapy with botulinum toxin is performed, with regression of hypertrophy and reduction of sialorrhea after 3 weeks.
Discussion and Learning Points: The parotid gland is the largest of three glands located in the parotid-masseteric region, responsible for the secretion of 95% of saliva. A broad spectrum of pathological conditions can affect parotid glands. Although unilateral parotid swelling is more frequently seen, bilateral parotid swelling is not uncommon. Parotid swelling can result from a diverse number of pathologies and may pose a challenge for clinicians, so it is important to initially define the duration of symptoms (chronic and acute) and the number of affected glands. Obstructive, infectious/inflammatory and autoimmune causes are the most common in acute cases and tumoral in chronic ones. However, the idiopathic etiology must not be overlooked and, when not considered, often leads to diagnostic exhaustion.

2065 / #EV1299

LITHIUM INTOXICATION IN SEPTIC SHOCK

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Case Description: A 53-year-old male with bipolar disorder was admitted in an Intermediate Care Unit (IMCU) with a septic shock due to Enterococcus faecalis. As personal background he was taking 1200/mg day of lithium. Despite treatment of septic shock with antibiotics and fluids and sustained decline in inflammatory parameters, the patient remained with a reduced state of awareness, worsening liver enzymology (total bilirubin 0.4 mg/dL, alanine aminotransferase 203 U/L, aspartate aminotransferase 51 U/L, alkaline phosphate level 206 U/L, gammaglutamyltransferase 498 U/L) and polyuria with hypernatremia (165 mmol/L). The electroencephalography showed grade 2 in 5 of diffuse encephalopathy.
Clinical Hypothesis: Lithium intoxication.
Diagnostic Pathways: He was diagnosed with lithium intoxication due to impaired kidney function and its excretion, showing neurological effects (mild confusion), renal toxicity (nephrogenic diabetes insipidus) and hepatic toxicity. His lithium level was 1.42 mmol/L. Lithium was stopped and he was discharged with good condition.
Discussion and Learning Points: Because lithium is the most efficient long-term therapy for bipolar disorders, its necessary to be aware of its intoxication, with constant monitoring in the plasma, as it is a substance of low therapeutic index (0.6 – 1.2 mmol/L). Ignoring its toxicity sins can be fatal, in some cases can lead to coma, brain damage or death. Even when used in therapeutic doses can lead to important changes. Despite all the adverse effects it remains the gold standard in the treatment of bipolar disorder, making this case important and interesting in our practice.

 DOI: 10.12890/2022_V9Sup1

677 / #EV1300

VERIFICATION OF CENTRAL VENOUS CATHETER CORRECT PLACEMENT WITH BEDSIDE ULTRASOUND - A PRACTICAL APPROACH

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Case Description: A 73-year-old male with an acute pericarditis was admitted to the Intensive Care Unit (ICU), and CVC was needed for fluid resuscitation - the correct placement and the exclusion of complications was made with Point-of-Care Ultrasound (POCUS).

Clinical Hypothesis: Central venous catheterization is a common procedure in the management of critically ill patients, in the context of medical emergency and before surgical interventions. Placing a central venous catheter (CVC) in the internal jugular vein (VJI) using anatomical references presents a high risk of complications, in particular pneumothorax and improper arterial puncture. Thus, the placement of CVCs with ultrasound support is an accessible, safe and cost-effective method - and its verification can be made using a POCUS protocol.

Diagnostic Pathways: The protocol consists in the visualization the Rapid Atrial Swirl Sign (RASS) during the subcostal view. The protocol consists in the following steps: 1) A subcostal view with a clear image of the right atrium must be obtained (use the Inferior Vena Cava as an anatomical reference); 2) 5cc of a saline solution should be administered in one the CVC channels; 3) a turbulent flow should be seen in the right atrium, consistent with a RASS; 4) Procedure-related pneumothorax can be excluded after the direct visualization of anterior lung sliding with A-lines profile and confirmed using M-Mode with ultrasound.

Discussion and Learning Points: A POCUS protocol for the verification of CVC correct placement and exclusion of procedure-related pneumothorax is a safe, cost-effective and radiation-free method with high sensitivity and specificity, enabling a rational use of resources while saving time.

1366 / #EV1301

INTERNAL MEDICINE RESIDENCY DURING THE COVID19 PANDEMIC

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Background and Aims: The COVID-19 had a major on the education. The purpose of this study was to provide objective and real-life data concerning the impact of the COVID-19 pandemic on internal medicine residency training.

Methods: A national query was developed and distributed between February and May of 2021.

Results: 175 questions were submitted with a great dispersion rate. 4% were in the first year of residency, 16% in the second, 20% in the third; 26% in the fourth, 29% in the fifth and 4% waiting exam (half of them asked for extension). 97.7% of the respondents felt their residency was affected by the pandemic, with 85.1% being mobilized to work with COVID-19 patients while in internal medicine and 45.1% in an optional internship. The mean workload in 01/2019 was 48 h per week versus 60.6h in 01/2021. 63.4% had the possibility to realize all of internships but 50.9% had at least one cancelled. 95.4% answered that the pandemic affected their scientific production and education with a mean of 4,6 scientific works presented in 01/2019 versus 2,4 in 01/2021 and a mean of 4.8 courses frequented in 01/2019 versus 2,3 in 01/2021. Finally, 50.9% of the respondents said that they would ask for an extension of the residency.

Conclusions: There is evidence of the damage of the covid pandemic in residency. This query at the national level illustrates the real impact in our country, and could be a starting point to the discussion of new solutions to bridge some of this issues.

DOI: 10.12890/2022_V9Sup1

652 / #EV1302

SECOND VICTIM PHENOMENA (SVP) AMONG GERMAN PHYSICIANS IN INTERNAL MEDICINE AND NURSES BEFORE AND DURING COVID-19 – THE GERMAN PERSPECTIVE

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Background and Aims: Second Victim Phenomenon (SVP) is defined as traumatization of healthcare professionals by an unanticipated clinical event or outcome. SVP was coined in 2000 by American internist Albert W. Wu and is well researched in Anglo-American settings. Evidence of SVP in Germany, however, is sparse. We started the SeViD-project to investigate SVP in Germany, especially among young professionals in internal medicine and nurses. The first survey (SeVID-I) was conducted before, the second survey (SeViD-II) during COVID-19-pandemic.
Methods: Cross-sectional online surveys in 2019/2020 among young internists of the German Society of Internal Medicine (DGIM e.V.) and German Nurses Association (DBfK e.V.). The SeViD-I questionnaire had 46 items (general experience, symptoms, and support strategies). SeViD-II additionally included BFI-10 to identify risk factors for prevalence or symptom load. Statistical analysis included binary logistic regression models to study the influence of various factors on the risk of becoming a second victim, the magnitude of symptoms and the time to self-perceived recovery.
Results: In total, 6 of 10 physicians and nurses reported to have experienced SVP at least once, with high 12-month prevalences. Recovery time took >1 year in 12% of participating physicians and 24% of participating nurses. Favored support strategies among both professions were opportunity to discuss emotional/ethical issues and prompt debriefing/crisis intervention after an incident.
Conclusions: Second victim phenomenon is common among young German internists and nurses in Germany. Similar support strategies against SVP are favoured by physicians and nurses to overcome SVP. Future research should focus on resilience against SVP.

2525 / #EV1303

CARDIAC ULTRASOUND IN AN INTERNAL MEDICINE CLINICAL ULTRASOUND UNIT. PATIENT PROFILE, RELEVANT FINDINGS AND CORRELATION TO PHYSICAL ASSESSMENT.

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Background and Aims: Cardiac ultrasound (US) allows physicians to see structural and functional alterations of the heart in a quick, accurate, and safe way. The aims of this study are to identify the most frequent findings during cardiac US, as well as the concordance between the grade of valve disease and heart auscultation.
Methods: This is a retrospective, descriptive study with data acquired from clinical information included in the medical histories of patients who were appointed to the Clinical Ultrasound Unit agenda of the General Hospital in Valencia (Spain) during the months of April and May of 2021. An anonymized Excel spreadsheet was used to collect and analyse the data.
Results: 56 cardiac US were performed. The most frequent alterations were: ventricular hypertrophy (23 concentric, 15 septal), dilatation of left atrium (33), depressed right ventricular systolic function (15), and visual depressed LVEF (10). In regards to valve disease, 10 showed mitral regurgitation and 2 showed moderate-severe mitral stenosis, 3 showed aortic regurgitation and 5 moderate-severe aortic stenosis and last, 13 showed moderate-severe tricuspid regurgitation. Out of the 21 patients with an identified heart murmur, 13 showed moderate-severe valve disease in the US. In contrast, 7 of the 35 patients with no heart murmurs showed moderate-severe valve disease. Therefore heart auscultation for the identification of valve disease has a 65% sensibility and a 75% specificity.
Conclusions: In our unit, during cardiac US the most frequent alterations identified were ventricular hypertrophy and left atrial dilatation. In regards to valve disease, mitral valve disease was the most prevalent.

500 / #EV1304

DRESS SYNDROME: POLYPHARMACY AS A DIAGNOSTIC CHALLENGE

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Case Description: The authors present an 82-year-old man with a known allergy to anti-inflammatory steroids and multiple comorbidities. One need of reference is hyperuricemia, for which he takes allopurinol. He was admitted to a ward for tricuspid valve infectious endocarditis and concomitant pacemaker probe infection. On the 6th week of ongoing treatment with ceftriaxone, with the primary condition already at a resolution point, a rising trend of liver enzymes unexpectedly appears, reaching 3-to-10 times normal in 3 days. Fever and pruriginous maculopapular rash follow, covering over 50% of body surface area. Ceftriaxone is suspended, admitting a possible late adverse reaction. Colchicine and allopurinol as well. There was no record of anti-inflammatory steroids administration. Despite the measures, a deterioration path took place. Cutaneous desquamative lesions, facial edema, and eosinophilia unfolded, culminating in a multiple organ dysfunction syndrome. Unfortunately, the patient had an expected death three weeks after the onset of the condition.
Clinical Hypothesis: Based on clinical description, we present

 DOI: 10.12890/2022_V9Sup1

a DRESS syndrome (Drug Rash with Eosinophilia and Systemic Symptoms) caused by ceftriaxone exposure.
Diagnostic Pathways: Although the trigger is usually recognized, it can pose a medical challenge in polymedicated patients. Exposure-to-onset time reported in the literature is usually 2 to 8 weeks, which places ceftriaxone as the most likely etiology. Also, no other cause was identified in the microbiological and imaging study done.
Discussion and Learning Points: We believe that a timely suspension of the trigger is essential. As so, a careful review of therapeutic adjustments made in the weeks preceding our suspicion of DRESS could be of most value.

2448 / #EV1305

AN 83 YEAR-OLD MAN WITH CUTANEOUS ERUPTION AND LIVER DYSFUNCTION.

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Case Description: An 83 year-old man with a history of hypertension, dyslipidemia, type 2 diabetes, and chronic kidney disease, was admitted to the hospital for a 1-week history of generalized erythematous rash, fever of 38°C, and cervical and inguinal lymphadenopathy. He had recently initiated treatment with allopurinol, and completed a course of cefepime due to a urinary tract infection, with no other medication changes. Initial laboratory tests revealed 12,300 leukocytes, 2,300 neutrophils, 4,800 lymphocytes, 2,000 eosinophils, and D-dimer of 2,400. During the ensuing days, the patient presented progression of the rash, evolving into a coalescing erythema with additional purpuric lesions, as well as persistent fever, leukocytosis, eosinophilia, and new onset hypertransaminasemia.
Clinical Hypothesis: Based on the clinical and laboratory findings, viral infections, lymphoproliferative disorders, autoinmune diseases, and adverse drug reactions were considered.
Diagnostic Pathways: Serologies for HIV, HBV, EBV, CMV, HHV 6/7/8, parvovirus, measles, rubella, paramyxovirus were negative, as well as autoimmune testing. A CT pulmonary was performed, showing adenopathies and homogenous splenomegaly suggestive of chronic lymphoproliferative disorder, which was later excluded. A skin biopsy was performed, revealing a non-specific superficial perivascular dermatosis. Allopurinol treatment was discontinued and a course of high-dose steroids was initiated, with significant improvement. The patient was discharged with a diagnosis of DRESS syndrome, secondary to allopurinol treatment.
Discussion and Learning Points: DRESS syndrome is a severe idiosyncratic adverse reaction to medication, characterized by fever, rash, systemic manifestations and eosinophilia, and is usually associated with high-risk drugs, including allopurinol. Diagnosis is clinical and treatment requires suspension of the medication involved and steroid therapy in severe cases.

157 / #EV1306

PLEURAL EFFUSION SECONDARY TO THORACIC ENDOMETRIOSIS: A SYSTEMATIC REVIEW

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Background and Aims: Endometriosis-related pleural effusion (PE) is a relatively rare but treatable cause of bloody PE. The aim of our review was to know the clinical characteristics and prognosis of patients with PE secondary to thoracic endometriosis (TE).
Methods: A systematic search of PubMed, Web of science, Scopus and Embase databases with the keywords "(pleural or hemothorax) and (thoracic endometriosis or endometriosis)"" was conducted from their inception until April 2021. Studies in English, French or Spanish which described cases of PE related to TE were included. Abstracts or case series with incomplete data were excluded. The following variables were evaluated: symptoms, size and location of the PE, pleural fluid's characteristics, diagnostic tests, treatment and outcome.
Results: We included 150 patients from 127 published studies. The most frequent symptoms included dyspnea (66%), chest pain (58%) and abdominal pain (41%). PE was the first manifestation of endometriosis in 65% of the cases, and it was considered massive in 57% and right-sided in 87%. Pleural fluid was hemorrhagic in 99% and exudative in 100% (only specified in 36 patients). A therapeutic thoracentesis was carried out in 68% and pleurodesis in 37%. Thoracic surgery was performed in 58% (VATS 58%, thoracotomy 42%) and pleurectomy was indicated in 26 of 86 operated patients. In 29% PE recurred after median of 1.8 years (quartiles 25-75: 0.41-4 years).
Conclusions: PE related to endometriosis is usually symptomatic, and frequently present with a hemorrhagic exudate. A quarter of the patients relapse, regardless of the treatment instituted.

503 / #EV1307

PROGNOSIS OF BETA-BLOCKER INDUCED BRADYCARDIA AMONG HOSPITALIZED PATIENTS IN INTERNAL MEDICINE DEPARTMENTS AT A TERTIARY HOSPITAL IN ISRAEL

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Background and Aims: Bradycardia, defined as a heart rate below 60, is a known side effect of beta-blockers. Currently there is a paucity of studies on the prognosis of bradycardia induced by beta-blockers in hospitalized patients. We sought to investigate the incidence of beta-blocker induced bradycardia among hospitalized patients in internal medicine departments and its association with

 DOI: 10.12890/2022_V9Sup1

the duration of hospitalization and post-discharge mortality.
Methods: We conducted a retrospective study on patients hospitalized in internal medicine departments at Sheba Medical Center between 01/10/13-30/09/18, whose heart rate were above 60 at admission and survived hospitalization. Patients were subsequently divided into three groups, those with: no beta blockers, beta blockers without bradycardia, and beta-blockers with bradycardia. Independent variables examined included – age, gender, weight, pulse and blood pressure at admission, albumin, and renal function. Outcomes examined included: duration of hospitalization, 30-days mortality, and 1-year mortality.
Results: Of the 75,110 patients included in this study the median duration of hospitalization was 2.1 days, the 30-day and 1-year mortality rate were 4.4% and 19.2% respectively. Of all patients 39% were treated with beta-blockers, of 34% subsequently developed bradycardia. Beta blocker use was associated with prolonged duration of hospitalization, further exacerbated by development of bradycardia (2.01 vs. 3.96 days, p <0.001). We found no association between the 30-days and 1-year mortality in patients who developed beta-blocker induced bradycardia compared to control.
Conclusions: The development of bradycardia in hospitalized patients treated with beta-blockers is not associated with higher 30-days and 1-year mortality.

2227 / #EV1308

RHABDOMYOLYSIS AND THE USE OF LOW DOSE AMPHETAMINE

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Case Description: A 22-year-old male presented to the ED with myalgias and tea-colored urine after re-initiating an exercise program. His serum CK and LFTs were significantly elevated. He was successfully treated for acute rhabdomyolysis with aggressive hydration.
Clinical Hypothesis: The etiology of his condition was not clear given that his exercise was not considered vigorous. The only plausible explanation for his symptoms included the use of prescribed dextroamphetamine, which may have exacerbated the physiologic responses induced by exercise. We describe a novel case in which a patient may have developed recurrent episodes of rhabdomyolysis due to low-dose dextroamphetamine use.
Diagnostic Pathways: The etiology of the rhabdomyolysis was unclear given the patient did not start a very intensive exercise program, but his dextroamphetamine use for ADHD was recently changed from XR to IR preparation. This could be the underlying factor increasing susceptibility to rhabdomyolysis with more strenuous exercise. Thus, this case may reflect superimposed etiologies deriving from both the exertional and amphetamine-induced subtypes of rhabdomyolysis.
Discussion and Learning Points: To our knowledge, only three other cases of rhabdomyolysis have been reported at nontoxic concentrations of dextroamphetamine. In all three, the patients had elevated CK levels and reported exercise, dehydration, potassium depletion, and alcohol consumption as predisposing risk factors that created a 'tipping point' for symptomatic rhabdomyolysis when combined with low dose dextroamphetamine use. As the rate of prescription and non-prescription use of amphetamine-based medications continues to rise, the possible association of rhabdomyolysis warrants concern and should be explored in future studies to identify and potentially screen patients who might be at risk.

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WHEN A HISTOLOGIC DIAGNOSIS BECOMES FACTITIOUS - A CASE OF A MUNCHAUSEN SYNDROME

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Case Description: A 43-year-old woman suffering from recurrent hypoglycemias presented to the ER with hypoglycaemic coma. The history of present illness started in 2008 with multiple episodes of documented hypoglycemias. At that time laboratory studies revealed an endogenous hyperinsulinism. Screening for sulfonylureas, anti-insulin and anti-insulin receptor antibodies were negative. Body imaging and Ga68-DOTANOC PET showed no evidence of an insulinoma. The patient ended up being submitted to a total pancreatectomy, which revealed nesidioblastosis in histological examination. Since then, insulin doses were progressively reduced until new episodes of hypoglycaemia recurred in 2020 and insulin was stopped. Again, inappropriately high levels of insulin were found at the time of hypoglycaemic episodes. CT and PET scans did not find evidence of an insulinoma. C-peptide was later found to be negative and insulin ampoules were found in her possession, making a diagnosis of a factitious disorder.
Clinical Hypothesis: In a patient submitted to a total pancreatectomy, our clinical hypothesis for recurrent hypoglycemia were: ineffective total pancreatectomy, extrapancreatic insulinoma, insulin-producing tumor and factitious disorders.
Diagnostic Pathways: The workup investigation must first confirm hypoglycaemia and then distinguish between endogenous versus exogenous hyperinsulinism. Imaging studies were also performed to ruled the clinical hypothesis explained above.
Discussion and Learning Points: Although rare, factious disorders are frequently overlooked and very difficult to diagnose. Since they are very resource and time consuming, self-inflicted illnesses should always be considered and ruled out beforehand. This case study emphasises the key-role of C-peptide levels in the hypoglycaemia workup and the importance of waiting for c-peptide levels before pursuing further studies.

 DOI: 10.12890/2022_V9Sup1

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MIOCARDIOPATÍA PERIPARTO

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Case Description: 31-year-old puerperal woman at 33 weeks gestation. Gestational history G4P3A1. The first three pregnancies were normal, except for the last pregnancy where preeclampsia ocurred and was treated with labetalol and delivery was induced with prostaglandins at 41 weeks due to poor control of arterial hypertension. Admitted due to the clinical evolution over two weeks of progressive dyspnea and episodes of paroxysmal nocturnal dyspnea. The patient was admitted in a situation of global respiratory failure and signs of acute heart failure.
Clinical Hypothesis: Pulmonary embolism, lung infection, peripartum cardiomyopathy, pre-eclampsia acute myocardial infarction.
Diagnostic Pathways: Physical exploration and anamnesis, blood tests, echocardiography.
Discussion and Learning Points: Peripartum cardiomyopathy is a rare complication that can occur during the last trimester of pregnancy and is a leading cause of maternal morbidity and mortality. LVEF is usually below 45% with or wihout dilation. The incidence is highly variable depending on the geographical area, but on average it is 1:3000. For the correct diagnosis of this entity, in addition to the symptoms and the ruling out of other causes, an echocardiography which shows the findings previously described is required. Risk factors include pre-eclampsia, maternal age extremes in pregnancy, prolonged use of tocolytics, obesity, African and African-American ethnicity, multiple gestation pregnancies and multiparity. Learning outcomes Faced with a pregnant woman in the peripartum period, peripartum cardiomyopathy is an entity that should be considered.

2019 / #EV1311

WHAT CAUSES A SEIZURE IN A 38-YEAR-OLD WOMAN?

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Case Description: 38-year-old woman, smoker of half a pack of cigarettes a day, G1A0P1, has been taking oral hormonal contraceptives. No family history of clinical interest. Presented at A&E after having an episode of generalised tonic-clonic movements with jaw stiffness and loss of consciousness lasting a few minutes. On physical examination, the only notable finding was a bilateral blurring of the optic disc at the back of the eye. The blood tests were normal. The craneal CT showed no alterations. The EEG showed a slow trend in baseline activity without specific signs of pathologies. A brain MRI with contrast was performed, which showed signs consistent with cavernous sinus thrombosis. Treatment with levetiracetam and enoxaparin(anticoagulant doses) was initiated. The thrombophilia study showed no alterations
Clinical Hypothesis: Epilepsy; structural CNS lesions; CNS infection; cavernous sinus thrombosis
Diagnostic Pathways: Physical exploration and anamnesis Electroencephalogram Magnetic resonance physical exploration
Discussion and Learning Points: We have presented the case of a young female patient with a first seizure episode related to CST. CST is a rare but serious entity. Oral contraceptives are one of the main risk factors for this in young women.It is important to consider this clinical entity in patients taking oral contraceptives. Diagnosing this entity is usually a diagnostic challenge due to the wide range of clinical presentations. In addition, it can present with a normal cranial CT. Caution should be exercised when prescribing oral anticoagulants in young people, especially women with other risk factors (obesity, smoking…). Each case should be assessed individually, taking into account both the risks and the benefits.

267 / #EV1312

EVOLUTION OF DRUGS ADVERSE EFFECTS IN A SECOND LEVEL HOSPITAL IN A PERIOD OF 25 YEARS

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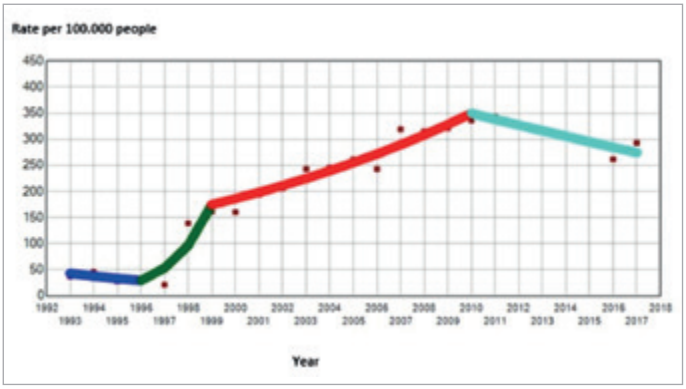
Background and Aims: To analyze the drugs adverse effects in patients admitted to the Hospital of Palencia in a 25-year period. To describe drug families involved, characteristics of the patients and to discover changes in trends.
Methods: Observational and retrospective analysis, based on the discharge database from the hospital; with codes coinciding with adverse effects caused by drugs and medicinal and biological substances.The variables: sex, age, type of admission and discharge; service provided at discharge, stay and mortality, as well as the pharmacological family involved, and type of adverse effect observed were analysed. A Joinpoint regression analysis was performed to determine the trends and changes.
Results: From a total of 410,218 hospital discharges between 1993 and 2017; 8,290 (2.02%) had a drug adverse event. 51.6% occurred in men ($p = 0.01$), and 93.2% in emergency admissions, compared with only 6.8% in elective patients ($p < 0.001$). There is an increased likelihood of having an adverse effect in the elderly population with a prolonged hospital stay (Figure 1, Table 1)
Conclusions: The results of the analysis highlight that drug adverse effect is an important problem in daily clinical practice,

 DOI: 10.12890/2022_V9Sup1

which is improving progressively over the recent years. It was observed that pharmacological adverse effects occur more in emergency and prolonged admissions. Internal Medicine Service registers the highest number of adverse effects, probably because of the elderly population admitted, with more comorbidities and medications prescribed, which could lead into an increase rate of adverse effects with the treatment prescribed during the hospital admission, despite of the emphasis to avoid, that it happens.

PHARACOLOGICAL GROUPS	FREQUENCY	PERCENTAGE
ANTINEOPLASTIC AND IMMUNOSUPPRESSOR	1471	17.0
ANTIBIOTIC	801	9.2
STEROID ADRENAL CORTEX	777	9.0
ANTICOAGULANT	761	8.8
ANTIRREUMATIC	709	8.1
CARDIOTONIC GLUCOSIDE	691	8.0
ANTIHYPERURICEMIC	518	5.9
NON-SPECIFIED DRUG	487	5.6
ANTIPSYCHOTIC AND NEUROLEPTIC	467	5.4
ANTIARRHYTHMIC	402	4.6
DIURETIC	380	4.4
INSULIN AND ANTIDIABETIC DRUG	265	3.1
ANTIHYPERTENSIVE	229	2.6
OPIACEOUS AND NARCOTIC	221	2.6
ANALGESIC AND ANTIPIRETIC	150	1.7
SALICYLATE	112	1.3
ANTICONVULSIVES Y ANTIPARKINSONIANS	103	1.2
OTHER ANTIINFECTIVES	89	1.0
BRONCHODILATORS	44	0.5

#EV1312 Table 1: Pharmacological groups.



#EV1312 Figure 1: Rate of adverse effects in hospitalized patients per 100.000 people.

364 / #EV1313

EFFECTS OF LETTUCE SEED OIL ON PATIENTS WITH INSOMNIA DISORDER. A SINGLE-BLIND, PLACEBO-CONTROLLED TRIAL

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Background and Aims: *Lactuca sativa L.* (garden lettuce) is a popular salad herb. It has been in use since ancient Egyptians as a folk remedy for many indications including sleeping problems. We had prepared and tested previously the sedative effects of a purified cold-pressed *L. sativa* seed oil in animal models. It demonstrated pronounced sedative and analgesic effects and it potentiated the hypnotic effect of barbiturates in rat models. We planned this study to evaluate the sedative and hypnotic effects of *L. sativa* in human subjects suffering from insomnia.

Methods: 60 patients suffering from insomnia with or without anxiety were randomized by computer-based, block-randomization technique to receive either a soft-gelatin capsule (SEDAN) containing *L. sativa* seed oil 1000 mg (n=30), or a similar placebo capsule (n=30) once daily every evening for one week. All patients were asked to complete 2 verbal questionnaires before the start of treatment and at the end of one week.

Results: Improvements in both the modified State-Trait Anxiety Inventory and the Sleep rating scale scores were significantly greater in patients receiving L. sativa seed oil compared with those on placebo (P = 0.01). No side effects were found to be attributable to L. sativa seed oil at the given dosage.

Conclusions: *L. sativa* seed oil was found to be a safe, useful sleeping aid and may be considered as a hazard-free line of treatment, especially in geriatric patients suffering from mild-to-moderate forms of anxiety and sleeping difficulties.

1641 / #EV1314

EUROPEAN POSTGRADUATE TRAINING SURVEY IN INTERNAL MEDICINE

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Background and Aims: The principal objective of the European Board of Internal Medicine (EBIM) is to enhance the quality of postgraduate training in internal medicine throughout Europe. The Board carried out an on-line survey back in 2008 in to the practice of Internal Medicine with the results of 28 national Internal Medicine societies resulting in two papers published in 2013. . It is important that EBIM continues to understand the changes in Internal Medicine training and practices over time. EBIM has devloped an on-line survey to help understand the training needs and current practice of doctors in Europe. The results from this questionnaire will then inform the future activities of the Board.

Methods: This hundred question survey was shared with the National Societies of Internal Medicine, on social media platforms, with the Young Internists of the European Federation of Internal Medicine. It included sections on current working practice, assessment and training, procedures, job satisfaction and burnout.

Results: Of the many results, the vast majority supported harmonisation across Europe. Most felt their career aspirations in Internal Medicine were met, that they were supported and valued in their current role. However, half also thought their workload excessive and felt some degree of burnout. Most were unaware of the European curriculum and believe it should influence training in their country.

Conclusions: These survey results help support the need for a European exam, the importance of common training goals and highlights the current difficulties of working in Internal Medicine

 DOI: 10.12890/2022_V9Sup1

with most trainees experiencing job satisfaction and a degree of burnout.

1009 / #EV1315

PARACENTESIS PERFORMED IN AN INTERNAL MEDICINE DAY HOSPITAL OF AN ANDALUSIAN HEALTH SERVICE HOSPITAL

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Background and Aims: To determine the characteristics of the population that periodically attends our Day Hospital (DH) for evacuating paracentesis and its usefulness.

Methods: We conducted a retrospective descriptive study whose unit of analysis was the histories of patients undergoing evacuative paracentesis at the Internal Medicine Day Hospital (IMDH) between January 1, 2019 and June 1, 2020.

Results: In the time period between January 1/19 to June 1/20, a total of 292 paracenteses were performed in 48 patients at IMDH. Of these, 44% were male and 65% female. The mean age was 65.9 years. Of the total number of patients, 39.58% (19 patients) presented cirrhotic decompensation and accounted for 54% of the techniques; 54.16% (26 patients) were for tumor ascites and accounted for 28.70% of the total number of paracentesis; and only 6.35% (3 patients) were for cardiac decompensation, requiring 13.3% of the procedures. Likewise, in the same evolution time, the patients required only 47 evacuating paracentesis in hospital emergency rooms and a total of 52 admissions related to ascitic decompensation. The mean time from the first paracentesis to the end of the study was 17.4 months.

Conclusions: IMDH is a very useful tool for reducing the number of visits to the emergency department, as well as the need for admission due to decompensation in chronic pathologies with high hospital demand.

2485 / #EV1316

OMENTAL INFARCTION: AN IMPORTANT DIFERENTIAL DIAGNOSIS IN ABDOMINAL PAIN

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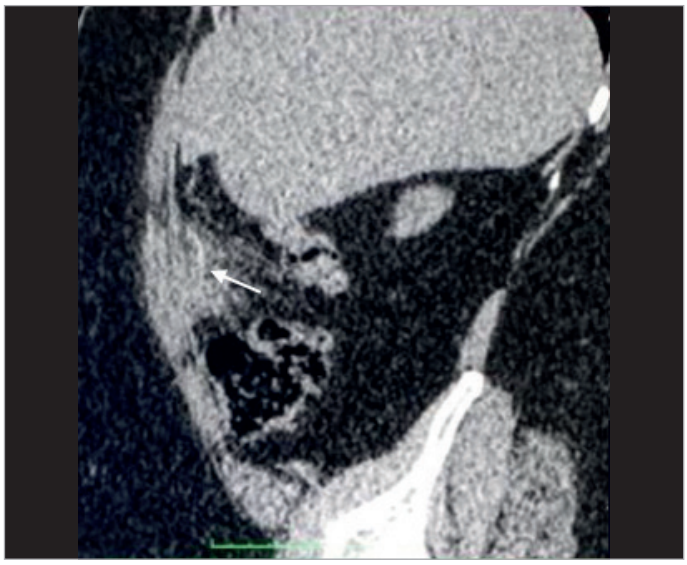
Case Description: 51 year-old woman, class III obesity, comes to emergency room with 6 hours of diffuse abdominal pain (8/10), nausea and emesis. Said the pain started as intermittent cramps three months before and got worse suddenly, with no identifiable trigger. Physical examination (PE) of the abdomen showed diffuse pain and stiffness in lower quadrant but no signs of peritonitis. Patient was stable and had no other PE changes. Tomography scan (CT-scan) suggested omental infarction (OI), and laboratory had elevation of C-reactive protein (CRP) of 11.78 (reference value 1.0), ciprofloxacin and ibuprofen initiated. Eight days after initial consultation, patient returns presenting fever, worsen abdominal pain, though PE did not change. New laboratory analysis and contrast CT-scan were requested (Figure 1), showing 4.5x4.0 cm abscess and high subcutaneous fat density and CRP 28,3. General surgery team opted for conservative treatment, and piperacillin-tazobactam started. Patient presented significant clinical improvement and antibiotic was discontinued after 17 days, when no abscess could be identified on CT-scan.

Clinical Hypothesis: Omental infarction, epiploic appendagitis

Diagnostic Pathways: OI could only be determined because of tomography accessibility, PE and laboratory were inconclusive, and it had to be repeated because of clinical deterioration and abscess follow-up.

Discussion and Learning Points: Abdominal pain is a common symptom in emergency departments, and though omental infarction is not the most common, clinicians, radiologists and general surgery should be aware of the condition, that can only be determined with CT-scan. Literature still battle on how to manage such patients, most going toward conservator treatment, rather than surgery, that's left for refractory patients.



#EV1316 Figure 1A: Computed tomography (CT scan) without venous contrast (sagital view) shows dense structure inside focal area of fat infiltration that represents thrombosed vessel and the cause of omental infarction.

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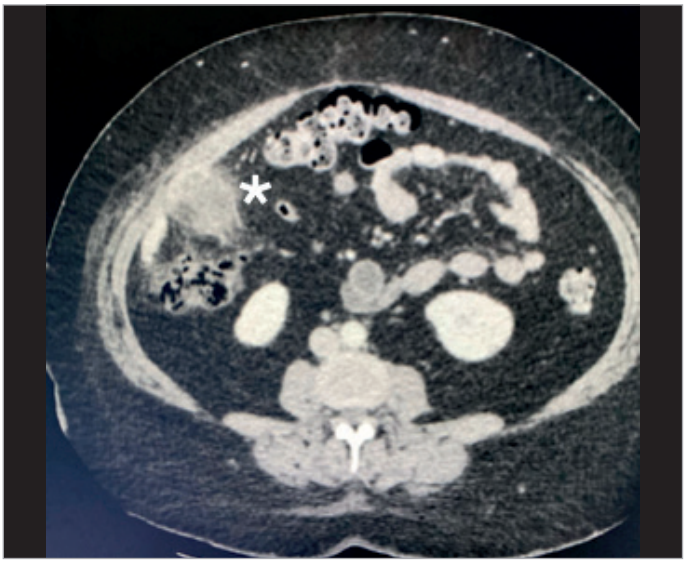
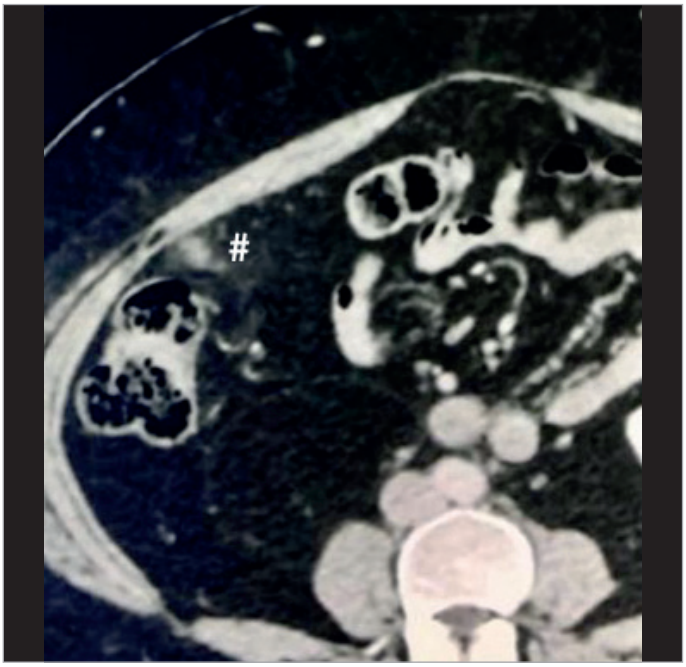


#EV1316 Figure 1B: CT scan with venous contrast - white asterisk show fluid collection with peripheral enhancement by venous contrast compatible with abscess measuring 4,2x4,5cm.



#EV1316 Figure 1C: CT scan with venous contraste, axial view. The hashtag shows improvement of fat infiltration adjacent to the right colon, with residual densification.

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