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ORAL PRESENTATIONS

O001 / #922

RHEUMATOID ARTHRITIS AND BRONCHIECTASIS

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Background and Aims: Rheumatoid arthritis (RA) can be associated with bronchiectasis (BQ). The mechanism underlying this association remains unknown. We aimed to characterize the patients with RA and BQ and in particular the relevance of the presence of antibodies to citrullinated protein antigens (ACPA).

Methods: We conducted a retrospective, case-control study, including baseline data from 80 patients with diagnosis of RA that were in hospital clinical records from January 2018 to December 2019. 20 patients with RA and BQ were selected and 60 controls were randomized.

Results: The mean age was 65±11 years; there was a predominance of female (71%) patients. Mean age of diagnosis of RA was 55±13 years and the mean age of diagnosis of BQ was 71±9 years. There was a significant association between the presence of ACPA and BQ ($p=0.001$). 13% of all patients had respiratory infections; there was an association with biologic treatment ($p=0.0034$) but there was no association between the presence of BQ and respiratory infections ($p=0.258$).

Conclusions: The diagnosis of BQ occurred, in mean, 16 years later after the diagnosis of RA. The presence of ACPA was related with the development of BQ. In patients with BQ, the prevalence of respiratory infections was not increased.

O002 / #231

MYOCARDIAL INFARCTION DURING GIANT CELL ARTERITIS: A COHORT STUDY

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Background and Aims: Cardiovascular risk is increased in giant cell arteritis (GCA). We aimed to characterize myocardial infarction (MI) in a GCA cohort, and to compare the GCA and non-GCA population affected by MI.

Methods: In patients with a biopsy-proven diagnosis of GCA between 1 January 2001 and 31 December 2016 in Côte D'Or (France), we identified patients with MI by crossing data from the territorial myocardial infarction registry (Observatoire des Infarctus de Côte d'Or, RICO) database. Five controls (non-GCA + MI) were paired with one case (GCA + MI) after matching for age, sex, cardiovascular risk factors and prior cardiovascular disease. MI were characterized as type 1 MI (T1MI), resulting from thrombus formation due to atherothrombotic disease, or type 2 MI (T2MI), due to a myocardial supply/demand mismatch. GCA-related MI was defined as MI occurring within 3 months of a GCA flare (before or after).

Results: Among 251 biopsy-proven GCA patients, 13 MI cases were identified and paired with 65 controls. MI was GCA-related in 6/13 cases, accounting for 2.4% (6/251) of our cohort. T2MI was more frequently GCA-related than GCA-unrelated (80% vs.

16.7%, $p=0.080$), and vasculitis was the only triggering factor in 75% of GCA related T2MI. GCA-unrelated MI were more frequently T1MI and occurred in patients who had received a higher cumulative dose of prednisone ($p=0.032$). GCA was not associated with poorer one-year survival.

Conclusions: GCA-related MI are mainly T2MI probably caused by systemic inflammation rather than coronaritis. GCA unrelated MI are predominantly T1MI associated with atherothrombotic coronary artery disease.

O003 / #112

THE PREVALENCE OF MALNUTRITION AMONG ADULT PATIENTS WITH THE CORONAVIRUS DISEASE 2019 (COVID 19) IN A TERTIARY GOVERNMENT HOSPITAL

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Background and Aims: As of October 2020, Coronavirus Disease 2019 (COVID 19) has infected more than 368,000 people in the Philippines. Although no study has been done on malnutrition and COVID 19, it has long been associated with poor long-term outcomes. We aimed to determine the prevalence and associated factors of malnutrition among patients with COVID 19.

Methods: A cross-sectional study on COVID 19-confirmed patients admitted to the wards from July 15 to September 15, 2020. Nutritional status was assessed using the Philippine Society for Parenteral and Enteral Nutrition modified Subjective Global Assessment Grade (SGA) tool. Chi-square test or Fisher exact test, as appropriate, was used to identify factors that have a significant association with malnutrition. Furthermore, logistic regression was done on factors with a significant association.

Results: Among the 355 patients in the study, 71.83% (255) were malnourished. Factors significantly associated with malnutrition: community-acquired pneumonia (CAP) [p -value <0.001], hospital-acquired pneumonia (HAP) [p -value 0.002], and chronic kidney disease (p -value 0.033). Multivariable logistic regression revealed that age [OR 1.02, CI 95% 1.00, 1.04, p -value 0.027] and CAP-MR [OR 3.02, CI 95% 1.73, 5.27, p -value <0.001] are significant predictors of malnutrition. All patients with CAP- High Risk and HAP were predicted perfectly to be malnourished.

Conclusions: The prevalence of malnutrition was high (71.83%) in a general cohort of COVID 19 patients using the modified SGA. Risk factors of malnutrition among patients with COVID 19: age, CAP, and HAP. Nutritional support and management of comorbidities are of paramount importance in the care of patients with COVID 19.

O004 / #740

PROGNOSTIC VALUE OF NEUTROPHIL-TO-LYMPHOCYTE RATIO IN COVID-19 COMPARED WITH INFLUENZA AND RESPIRATORY SYNCYTIAL VIRUS INFECTION

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Background and Aims: A high neutrophil to lymphocyte ratio (NLR) is considered an unfavorable prognostic factor in various diseases, including COVID-19. The prognostic value of NLR in other respiratory viral infections, such as Influenza, has not hitherto been extensively studied. We aimed to compare the prognostic value of NLR in COVID-19, Influenza and Respiratory Syncytial Virus infection (RSV).

Methods: A retrospective cohort of COVID-19, Influenza and RSV patients admitted to the Tel Aviv 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 compare the association between NLR values and poor outcomes among the three groups. ROC curve analyses for each virus was applied to test the discrimination ability of NLR.

Results: 722 COVID-19, 2213 influenza and 482 RSV patients were included. Above the age of 50, NLR at admission was significantly lower among COVID-19 patients ($P<0.001$). NLR was associated with poor clinical outcome only in the COVID-19 group. ROC curve analysis was performed; the area under curve of poor outcomes for COVID-19 was 0.643, compared with 0.497 and 0.537 for Influenza and RSV respectively. In the COVID-19 group, multivariate logistic regression identified a high NLR (defined as a value above 4.7) to be a prognostic factor for poor clinical outcome, after adjusting for age, sex and Charlson comorbidity score (odds ratio of 1.6, $p=0.005$).

Conclusions: NLR at admission is lower and has more prognostic value in COVID-19 patients, when compared to Influenza and RSV.

O005 / #968

HOSPITALIZATION OUTCOMES OF NON-COVID-19 PATIENTS ADMITTED TO INTERNAL MEDICINE DEPARTMENTS DURING THE COVID-19 PANDEMIC COMPARED TO PRE-PANDEMIC ERA

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Background and Aims: The effect of the COVID-19 pandemic on the hospitalization outcomes of non-COVID-19 patients is not known.

Methods: We conducted a retrospective analysis of characteristics and hospitalization outcomes of patients hospitalized at Shamir medical center between March 19th, 2019 to April 16th, 2019, and during the first COVID-19 lockdown from March 19th, 2020 to April 16th, 2020.

Results: During the lockdown, 544 non-COVID patients were hospitalized in internal medicine wards compared with 903 patients in the same period the previous year. During the lockdown, hospitalized patients came more often from long-term facilities and were more frequently dependent. Also, patients of the 2020 period had a higher Charlson mortality index score. The cause of admission was significantly more often infectious (mainly pneumonia). Length of hospitalization was significantly shorter. Interestingly, admission during lockdown was independently associated with in-hospital, 30 and 90 days mortality; adjusted odds ratio (aOR) for in-hospital mortality was 1.57 (95% CI 1.059-2.339 p=0.025), aOR for 30 days mortality was 1.64 (95% CI 1.12-2.41 p=0.011) and aOR for 90 days mortality was 1.5 (95% CI 1.073-2.12 p=0.018).

Conclusions: A substantial decrease in non-COVID-19 hospitalizations to internal medicine departments was found during the lockdown. Significant differences in baseline characteristics cause for admission and length of hospitalization were noted. Hospitalization during the lockdown was independently associated with an increase in short-term mortality. Due to the lack of studies examining out-of-hospital mortality, it is hard to conclude the reasons for these findings. Studies should further investigate the effect of the pandemic on the non-COVID population.

O006 / #76

IMPAIRED HOST ANTIVIRAL TH1 AND CD8 RESPONSE IN HIGHLY INFLAMMATORY SARS-COV-2 PATIENTS

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Background and Aims: Coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, has become pandemic. A minority of patients exhibit an aberrant and excessive immune reaction, defined as cytokine release syndrome (CRS). As CRS is a major cause of disease severity and death, more information on the composition and activity of the T cell compartment is necessary.

Methods: We profiled the T cell composition, activation, and proliferation in patients with severe or critical COVID-19 and matched healthy controls by flow cytometry. 20 hospitalized COVID-19 patients, eight severe and twelve critical cases, were included. In addition, two healthy controls were age- and sex-matched to each COVID-19 patient.

Results: Beside lymphopenia we identified: reduced CXCR3+CCR4-CCR6- Th1 cell frequencies in critical COVID-19 cases, elevated CXCR3-CCR6+ Th17 cells in both severe and critical, and higher CD8+ T cell frequencies in the severe group. Furthermore, frequencies of CD4+ central memory and CD8+CD28- differed significantly between healthy and SARS-CoV-2 infected subjects. Compared to healthy controls patients suffering from severe COVID-19 had increased frequencies of activated and proliferating CD38+Ki67+ Th1 and CD8+ T cells suggesting active anti-viral T cell defense. In contrast, the frequencies of CD38+Ki67+ Th1 and CD8+ T cells correlated negatively with increasing plasma IL-6 in COVID-19 CRS.

Conclusions: Our data suggest that SARS-CoV-2-induced CRS may impair viral clearance by blunting the antiviral T-cell response.

O007 / #907

ULTRASONOGRAPHIC SOUTHEND HALO SCORE IS A NOVEL MARKER FOR DIAGNOSING AND MONITORING GIANT CELL ARTERITIS

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Background and Aims: Giant cell arteritis (GCA) is a medical emergency. Ultrasound (US) halo sign is useful in diagnosing GCA. We propose a novel ultrasound Halo Score (HS) as a potential marker to diagnose and assess disease activity in GCA patients.

Methods: Prospective multicentre study (HAS GCA) including 80 suspected GCA patients from fast track referrals at baseline and 3 months follow-up. Southend pre-test probability score stratified patients to low, intermediate, high-risk. HS calculated from intimal medial thickness in bilateral temporal artery branches (TAHS) and axillary arteries (AAHS), summed a Total Halo Score (THS). GCA diagnosis; clinical, positive US/additional test with CRP >5 mg/dl.

Results: 27 (34%) confirmed GCA, 53 (66%) non-GCA (controls), median age 72.0 in GCA, 52% females in GCA and 70% controls. GCA and controls stratification low (0% vs 100%), intermediate (24% vs 76%), high risk (71% vs 29%). Jaw-claudication, polymyalgia in GCA (63% and 56%) versus controls (3% and 8%), prior vision loss 22% GCA versus 4 % controls. 38% controls on glucocorticoids (GC) at presentation. 3-month median cumulative GC dose in GCA 2875 grams US had a high sensitivity (96%), specificity (98%) and accuracy (98%) in diagnosing GCA. 63% (17) GCA have completed 3 months follow up. Baseline median THS in GCA and control was 21 and 4 respectively (p=0.0001). 3-month median TAHS, AAHS and THS reduced from 10 to 3, 12 to 6 and 21 to 10.

Conclusions: Southend HS successfully discriminates GCA from non GCA mimics, quantifies vascular inflammation and helps assessing response in GCA.

O008 / #912

THE FREQUENCY OF SARS-COV-2 SPECIFIC MEMORY B CELLS IN COVID-19 RECOVERED PATIENTS REMAIN STABLE WHILE ANTIBODIES DECAY OVER TIME

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Background and Aims: The breadth of the humoral immune response following SARS-CoV-2 infection was indicated to be important for recovery from COVID-19. However, the information regarding the temporal dynamics of the serological and cellular memory in COVID-19 recovered patients is scarce.

Methods: We analyzed the temporal dynamics of SARS-CoV-2 specific antibodies and B cells in 60 COVID-19 recovered patients using ELISA, in-vitro neutralization assay, flow cytometry, and Next-Generation Sequencing of the B cell receptor antibody variable genes.

Results: We found that acute phase SARS-CoV-2 patients mount a rapid, robust antibody response following infection however, the serological memory decays in COVID-19 recovered patients over the period of six months. Using an in vitro neutralization assay revealed a strong correlation between total RBD-specific (RBD+) antibodies and neutralizing antibodies suggesting that antibody levels can be used as a proxy to determine neutralizing capacity. In contrast to the observed antibody decay, the memory B cell frequency was found to be stable over time. Next-generation sequencing of viral-specific B cell receptors showed an unregular high frequency of the IgG4 isotype which is known to contribute to the manifestation of IgG4 related disease and other autoimmune diseases specifically, IgG-related lung disease.

Conclusions: The persistence of viral-specific memory B cells following recovery may contribute to a robust recall humoral response in a case of re-infection by SARS-CoV-2. Interestingly, the repertoire analysis of viral-specific B cell response suggests that the induction of IgG4 may promote COVID-19 severity and could explain the long-term outcome in some COVID-19 recovered patients.

O009 / #115

EFFICACY OF CDSS IN IMPROVING ANTI-RESORPTIVE BONE PROTECTIVE THERAPY AMONGST ORTHOGERIATRIC INPATIENTS: A COMPARISON STUDY

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Background and Aims: Hip fractures have a mortality rate of 20% in the year following the fracture. Therefore, patients presenting with hip fractures should be assessed and prescribed anti-resorptive bone protective therapy (ABPT) to reduce the risk of further fractures. In our institution, this decision is undertaken by specialists only. The aim of this study is to compare the proportion of patients commenced on ABPT by surgical interns following the introduction of a Clinical Decision Support System (CDSS) in January 2020 to support appropriate ABPT prescribing amongst non-specialists.

Methods: The study compares the orthogeriatric patient cohort before and after CDSS introduction within the same time period (Jan 1st to June 30th) in 2019 and 2020. Data were extracted from the Irish Hip Fracture Database and statistically analyzed using SPSS. The Mann-Whitney two-tailed test was employed to calculate statistical significance.

Results: In 2019, 31% (55/178) of patients admitted during the study period (n=178) did not receive orthogeriatric specialist input and only 27% (15/55) of these had ABPT prescribed during their admission. In 2020, 17% (32/185) of patients admitted (n=185) did not receive specialist input; however, 44% (14/32) of these were commenced on ABPT. Overall, more patients were prescribed ABPT in 2020 (78%;146/185) as compared to 55% (98/178) in 2019 (z-score 6.57069; p-value <0.01). The number of patients awaiting specialist outpatient appointments before being prescribed ABPT also dropped from 40% (71/178) in 2019 to 13% (24/185) in 2020 (p-value <0.01).

Conclusions: A CDSS improves ABPT prescribing and reduces specialist appointments. This could reduce long-term mortality rates and future healthcare costs.

O010 / #232

MOLECULAR MECHANISMS ASSOCIATED WITH FAILURE OF LOWER EXTREMITY ENDOVASCULAR REVASCLARIZATION (LER): A PROSPECTIVE STUDY ON A DIABETIC POPULATION

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Background and Aims: No definitive molecular associations have been described that could explain the difference in outcomes after endovascular treatment in diabetic patients with peripheral artery disease (PAD) and chronic limb-threatening ischemia (CLTI). This study describes the relationship between the level of the major cytokines involved in diabetic atherosclerosis and the correlation of inflammatory biomarkers at baseline with outcomes after endovascular procedures in diabetic patients with PAD and CLTI. In particular, we studied the TNF- α , IL-6, CRP and osteoprotegerin (OPG) levels.

Methods: We evaluated the relationship between the levels of the major cytokines associated with diabetic atherosclerosis and the outcomes after endovascular procedures in diabetic patients with PAD and CLTI.

Results: 299 patients with below-the-knee occlusive disease undergoing an angioplasty procedure were enrolled. The levels of key cytokines, osteoprotegerin (OPG), tumor necrosis factor- α (TNF- α), interleukin-6 (IL-6) and C-reactive protein (CRP), were measured and Major Adverse Limb Events (MALE) and Major Adverse Cardiovascular Events (MACE) were assessed at 1, 3, 6 and 12 months post procedure. There was a linear trend from lowest to highest quartile for each cytokine at baseline and incident MALE. A linear association between increasing levels of each cytokine and incident MACE was also observed. Receiver operating characteristics (ROC) models were constructed using clinical and laboratory risk factors and the inclusion of cytokines significantly improved the prediction of incident events.

Conclusions: We demonstrated that elevated OPG, TNF- α , IL-6 and CRP levels at baseline correlate with worse vascular outcomes in diabetic patients with PAD and CLTI undergoing an endovascular procedure.

O011 / #687

IMPACT OF NATREMIA AND UREA-CREATININE RATIO ON DECOMPENSATED HEART FAILURE

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Background and Aims: Decompensated heart failure is a common cause of admission to Internal Medicine ward. Urea-creatinine ratio (U/C) and low natremia (Na) previously showed prognostic value in this context. This study aims to assess the impact of both predictors on the hospitalization outcome.

Methods: We retrospectively studied all cases of decompensated heart failure admitted to an Internal Medicine ward during a one-year period. Urea-creatinine and Na measures at the hospital admission were recorded. We selected all cause in-hospital death as the primary outcome. The sample was divided in 4 groups: A) U/C <60 and Na \geq 135 mEq/L, B) U/C <60 and Na <135 mEq/L, C) U/C \geq 60 and Na \geq 135 mEq/L D) U/C \geq 60 and Na <135 mEq/L. We performed a multivariate analysis of the predictors using logistic regression.

Results: The study included 271 patients (96 men and 175 women), with a mean age of 79.2 years. 67 (24.7%) patients had U/C ≥ 60 . 91 (33.6%) had Na < 135 mEq/L. The overall in-hospital mortality was 11.8%. There were differences across the groups (A: 4.4%, B: 14.9%, C: 20.9%, D: 29.2%, $p < 0.001$). The two markers independently predicted this outcome (U/C > 60 : odds ratio 3.7, $p = 0.001$ Na < 135 mEq/L: odds ratio 2.5, $p = 0.017$).

Conclusions: Urea-creatinine ratio and hyponatremia are simple biomarkers that predict increased mortality for decompensated heart failure hospitalizations. These markers could be useful in clinical practice and should be the object of further research.

O012 / #659

NEW ONSET STEATOSIS BUT NOT PERSISTENT STEATOSIS PREVENTS HEPATIC FIBROSIS IMPROVEMENT AFTER VIRAL ERADICATION IN PATIENTS WITH CHRONIC HEPATITIS C: EVALUATION BY FIBROSCAN

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Background and Aims: In patients with chronic hepatitis C (CHC), presence of steatosis before and after sustained virological response (SVR) has been demonstrated and linked to metabolic alterations. Aim: to define the impact of post SVR steatosis on fibrosis improvement evaluated by Fibroscan in CHC patients after viral eradication.

Methods: 794 patients with CHC achieving SVR were enrolled in 2 Italian Liver Units. Data were collected the day of DAAs starting and six months after SVR. Fibroscan diagnosed steatosis (by controlled attenuation parameter (CAP) ≥ 248 dB/m) and fibrosis (by liver stiffness measurement LSM).

Results: Mean age was 64 ± 16 ys, 50% males, genotype 3 in 7%. Patients with baseline steatosis (365; 46%) presented significantly higher baseline LSM values compared to their counterpart (10.6 ± 7.8 vs 9.4 ± 7.4 kPa; $p = 0.04$). After SVR, steatosis (CAP ≥ 248 dB/m) developed in 125 out of 429 (29%) without steatosis at enrollment, whereas persisted in 243 (66%) of patients with baseline steatosis. LSM significantly reduced after SVR (10 ± 7.6 vs 8.2 ± 7.2 kPa, $p < 0.001$), even in presence of hepatic steatosis post SVR (10.3 ± 7.3 vs 8.2 ± 6.6 kPa; $p < 0.001$). However, when the analysis was differentiated between patients with persistence and new onset steatosis, a significantly reduction of LSM in patients with persistence (10.8 ± 7.8 vs 8.0 ± 5.7 kPa, $p < 0.001$) but not in those with new onset steatosis (9.4 ± 6.4 vs 8.7 ± 8.0 kPa, $p = 0.12$) was confirmed.

Conclusions: New onset steatosis but not persistence of baseline steatosis prevents fibrosis improvement after SVR, possibly suggesting the presence of two different type of post SVR steatosis.

O013 / #665

COAGULATION BALANCE AND LIVER FIBROSIS IN NON-CIRRHOTIC PATIENTS WITH CHRONIC HEPATITIS C AFTER ERADICATION BY DIRECT-ACTING ANTIVIRAL AGENTS (DAAS).

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Background and Aims: Chronic HCV infection causes liver and cardiovascular damage. A procoagulant imbalance has been reported in patients with chronic hepatitis C (CHC) and has been found to be associated with the severity of liver fibrosis. Aim: to evaluate whether the eradication of HCV by Direct-acting antiviral agents (DAAs) leads to a modification of procoagulant imbalance and whether this is related to a reduction of liver damage.

Methods: From 2017 to 2019, 70 patients with CHC (mean age 58.9 ± 10.5 years) without cirrhosis were enrolled. Anthropometric, clinical and biochemical parameters, cardiovascular damage by intima-media thickness, (IMT) and E/A ratio, liver fibrosis by Liver stiffness measurement (LSM) and coagulation parameters through the evaluation of endogenous thrombin potential (ETP) with/without thrombomodulin, and antithrombin and protein C (PC) – factor VIII ratio, were determined at enrollment and at 6 and 12 months after sustained viral response (SVR).

Results: At enrolment indexes of procoagulant imbalance were significantly higher in patients with CHC than in controls of general population (FVIII/PC ratio 1.7 ± 0.7 vs 1.1 ± 0.3 ; ETP ratio 0.8 ± 0.1

vs 0.6 ± 0.2 , $p < 0.0001$). Compared to baseline, coagulation (FVIII/PC 1.8 ± 0.8 vs 1.3 ± 0.5 , $p < 0.0001$) and liver fibrosis (LMS 6.4 ± 4.8 vs 5.2 ± 1.7 kPa, $p = 0.03$) parameters significantly improved at 6 months after SVR, while these parameters remained stable at 12 months. No modification of IMT and E/A ratio was observed after SVR.

Conclusions: After HCV eradication by DAAs, both procoagulant imbalance and liver fibrosis improve, strengthening the direct link between coagulation alteration and HCV virus, while changes in carotid atherosclerosis may require longer follow-up to be highlighted.

O014 / #591

THE DYNAMIC OF THE INDICATORS OF BLOOD PRESSURE MONITORING IN PATIENTS WITH ARTERIAL HYPERTENSION, INCLUDING DISTANCE METHODS

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Background and Aims: The aim of the study is to estimate the effectiveness of the distance monitoring of blood pressure (BP) in patients with arterial hypertension (AH).

Methods: 1121 patients with AH (SBP – systolic 151.4 ± 9.1 , DBP – diastolic 96.9 ± 10.3) are included in the pilot project, of which 37% are men. The average age was 52.0 ± 12.0 . The patients independently measured BP twice a day and entered the SBP and DBP results on self-control diaries in electronic form, or transmitted data from the tonometer via the installed mobile application.

Results: A survey of patients with AH showed that before the study, only 15.2% (171 people) carried out regular monitoring of BP. Reached by the results of 6 months, the average level of SBP and DBP were 135.5 ± 10.1 and 85.8 ± 6.3 mm Hg respectively. During the implementation of the pilot project, the proportion of people who achieved target BP values by 2.6 times increased, which occurred against the background of an increase of 1.7 times the frequency of prescribing two-component antihypertensive therapy, 1.9 times - a three-component one.

Conclusions: The use of up-to-date methods of remote control of BP with BP monitors with the function of remote data transmission contributes to an increase in the frequency of prescribing combined antihypertensive therapy, which was accompanied by an increase in the proportion of patients who have reached target BP and reduced burden on emergency medical teams.

O015 / #87

ASSOCIATION BETWEEN NONALCOHOLIC FATTY LIVER DISEASE AND PRECLINICAL ATHEROSCLEROSIS IN A HEALTHY ASIAN POPULATION

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Background and Aims: This study investigates the relationship between non-alcoholic fatty liver disease (NAFLD) and subclinical coronary artery disease - as measured by Coronary Artery Calcium Score (CACS) - in a healthy Asian population.

Methods: The SingHEART population consists of healthy subjects aged 21-69 years without prior cardiovascular disease or diabetes. CAC was detected using an electron beam CT scanner, scored using the Agatston method, and further stratified into CACS >0 , >10 , and >100 . Hepatic steatosis was simultaneously diagnosed by radiologists from the CT-slices. NAFLD was defined as the presence of hepatic steatosis in the absence of alcoholic consumption > 20 g/day.

Results: of 663 subjects, the overall prevalence of NAFLD was 8.30%. 194 (29.4%) subjects demonstrated coronary artery calcification (CACS >0), amongst which 147 (22.2%) had CACS >10 , and 60 (9.04%) had CACS >100 . Participants with NAFLD were more likely to have CACS >0 ($p = 0.014$) and >10 ($p = 0.003$). After multivariable adjustment, the association between NAFLD and CACS >0 was attenuated, however NAFLD was still significantly associated with CACS >10 (Odds Ratio [95% CI]: 2.19 [1.01-4.76]).

Conclusions: NAFLD is not uncommon even in lower risk, healthy populations and is associated with at least mild subclinical coronary atherosclerosis. This highlights a subset who may benefit from preventative strategies to mitigate progression to known cardiovascular disease.

O016 / #1072

GLUTEN-SPECIFIC CD4+ T CELLS EXPRESS A DISTINCT SET OF MARKERS AFTER GLUTEN CHALLENGE THAT CORRELATE WELL ON THE TRANSCRIPTOMIC AND PHENOTYPIC LEVEL

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Background and Aims: It is well-established that oral gluten challenge of treated CeD patients induces a flux of gluten-specific

T cells into peripheral blood. However, the activation profile of these cells remains uncertain. We investigated the transcriptome and phenotype of such cells following gluten challenge to identify a read-out for antigen-specific responses.

Methods: Treated CeD patients underwent a 3-day gluten challenge. Blood was sampled on day 6 after challenge. PBMCs were stained with HLA-DQ:gluten-tetramers (tet). Tet+ and tet- gut-homing (integrin β 7+) effector-memory T (TEM) cells were sorted on day 6 for bulk RNA-sequencing. Tet+ cells were analysed by a mass cytometry staining panel designed based on differentially expressed (DE) genes coding for cell surface markers.

Results: We observed a clear increase in gut-homing gluten-specific effector-memory T cells in blood 6 days after initiation of gluten challenge in all participants (4 vs. 53 tet+ integrin β 7+ TEM / 106 CD4+ cells) and detected over 3000 DE protein coding genes, among them 94 DE genes coding for cell surface markers after gluten challenge. The markers selected for mass spectrometry correlated well with RNA levels except for CD47, CD52, CD103 and CD314 (NKG2D).

Conclusions: Transcriptome analysis from gut-homing, gluten-specific CD4+ T cells in blood after gluten re-exposure revealed 94 DE genes coding for cell surface markers. Based on the phenotypical similarity with gluten-specific T cells from the intestine and formation of a distinct cell cluster, gluten-specific T cells from blood after gluten challenge may serve as an alternative outcome measure in clinical drug trials.

O017 / #919

DIAGNOSIS AND PREVALENCE OF COMMUNITY-ONSET SEPSIS IN INTERNAL MEDICINE WARDS: A MULTICENTER, PROSPECTIVE STUDY.

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Background and Aims: The validity of “Sepsis-3” criteria in identifying patients with sepsis in internal medicine wards (IMWs) is not well known. Real-life data about this topic and on the prevalence of sepsis in IMWs could be useful for improving hospital organization. This study was aimed to assess the validity of “Sepsis-3” criteria in identifying patients with community-onset sepsis in IMWs. Secondary objectives of the study were to evaluate the prevalence of these patients in IMWs and to compare “Sepsis-3” and “Sepsis-1” criteria.

Methods: This is a multicenter, prospective, observational study, carried out in 22 IMWs of Tuscany (Italy). All patients admitted to each of the study centers over a period of 21-31 days were evaluated within 48 hours; those with clinical signs of infection were enrolled. The main outcome was in-hospital mortality.

Results: 2,839 patients were evaluated and 938 (33%) met the inclusion criteria. Patients with sepsis diagnosed according to “Sepsis-3” were 522, representing 55.6% of patients with infection and 18.4% of all patients hospitalized; they were older than those without sepsis (79.4±12.5 vs 74.6±15.2 years, $p < 0.001$). In-hospital mortality was significantly higher in patients with sepsis compared to others (13.8% vs 4.6%; $p < 0.001$). “Sepsis-3” criteria showed greater predictive validity for in-hospital mortality than “Sepsis-1” criteria (AUROC=0.71; 95%CI, 0.66-0.77 vs 0.60; 95%CI 0.54-0.66; $p = 0.0038$).

Conclusions: “Sepsis-3” criteria are able to identify patients with community-onset sepsis in IMWs, whose prevalence and in-hospital mortality are remarkably high. Medical departments should adapt their organization to the needs for care of these complex patients.

O018 / #592

ANALYSIS OF THE FUNCTIONAL CAPACITY OF PATIENTS WITH ADVANCED CARDIAC AND/OR RESPIRATORY DISEASE INCLUDED IN A CLINICAL TRIAL OF TELEMONITORING OF CONSTANTS. ATLAN_TIC PROJECT.

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Background and Aims: To analyze the functional capacity of patients with advanced cardiac and/or respiratory disease included in a clinical trial of telemonitoring of constants.

Methods: Multicenter clinical trial including patients with heart failure with NYHA \geq III and/or chronic respiratory failure with MRC \geq III and/or oxygen saturation $<$ 90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Secondary analysis of functional capacity using Barthel's index.

Results: 510 patients from 5 hospitals were included, 255 patients in each arm. Median age was 76,5 years, being 54.5% females. Cardiac inclusion criteria were presented for 321 patients (63.1%), respiratory 71 (13.9%) and 117 (22.9%) both criteria. The 67.6% had multimorbidity. Median score of the Charlson index of 2 points, PALIAR index of 0 points (predicting 21% mortality at 6 months) and PROFUND index of 6 points (predicting 20% mortality at one year). The functional capacity analysis showed no initial differences (PAC 72.09±22.46, TELEPAC 74.6±22.85, $p = 0.32$). At the end of the study, a decrease in the Barthel index was observed in the PAC arm and an increase in the TELEPAC

arm (PAC 70.93±24.986, TELEPAC 75.41±24.871, $p >0.05$). Quality of life using the Euroqol thermometer showed an increase throughout the study with differences in favor of the TELEPAC arm (mean PAC of 56.38±21.62, TELEPAC 64.09±19.91, $p <0.01$).

Conclusions: Telemonitoring in the ATLAN_TIC project meant a statistically significant increase in functional capacity, but with little clinical magnitude. Specific studies in this area are necessary.

O019 / #650

BIO CONSTANTS IN THE MEDICAL OFFICE VERSUS HOME TELEMONITORING DEVICES. ATLAN_TIC PROJECT

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Background and Aims: To analyze the control of bio constants measured in the medical office versus telemonitoring in a clinical trial, in patients with advanced cardiac and/or respiratory failure.

Methods: Multicenter clinical trial including patients with heart failure with NYHA≥III and/or chronic respiratory failure with MRC≥III and/or oxygen saturation<90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Secondary analysis of the control of bio constants in medical office versus telemonitoring. A calibration was performed between the consultation and telemonitoring devices with a variability <5%. SSPSv20 statistical package. Approved by the Research Ethics Committee.

Results: 510 patients from 5 hospitals were included, 255 patients in each arm. Median age was 76,5 years, being 54.5% females. Cardiac inclusion criteria were presented for 321 patients (63.1%), respiratory 71 (13.9%) and 117 (22.9%) both criteria. No differences were found in hospital admissions or emergency room visits. The median values of the bio constants measured in the medical office were: systolic blood pressure 126.77±30.93mmHg; diastolic blood pressure 68.53±8.83mmHg; heart rate 75.38±10.07 bpm; O₂ saturation 94.82±2.82%; weight 79.55±18.47Kg. The average values of the biocostants measured with telemonitoring devices were: systolic blood pressure 120.72±18.63mmHg; diastolic blood pressure 68±9.50mmHg; heart rate 75.89±11.0 beats per minute; O₂ saturation 93.92±3.48%; weight 77.69±19.39Kg. Differences were found in mean systolic blood pressure (PAC 126.77±30.93mmHg, TELEPAC 120.72± 8.63mmHg, $p <0.05$).

Conclusions: There was an adequate control of bioconstants. No differences were found in the face-to-face consultations versus telemonitoring except for systolic blood pressure.

O020 / #210

LOWER ADHERENCE TO MEDITERRANEAN DIET ELIMINATES A HYPOLIPIDEMIC EFFECT OF FTO RS9939609 POLYMORPHISM IN OVERWEIGHT/OBESE ADULTS.

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Background and Aims: Mediterranean diet (MD) has been associated with a better adult lipidemic profile. Research has focused on its combined effect with FTO variants on obesity-related phenotypes. The present analysis investigated the effect of FTO rs9939609 on lipidemic traits of overweight and obese Greek adults, as well as the role of MD as mediator.

Methods: We used the available genotyped and baseline data for lipid biomarkers (total cholesterol, HDL, LDL, triglycerides) of 75 overweight and obese adults from the Greek iMPROVE clinical trial. Adherence to MD was assessed via calculation of the Mediterranean Diet Score (MDS)^[1]. Analyses were conducted using the SPSS software.

Results: Participants had a mean age of 45.8±11.4 years and a mean MDS of 30.9±3.7. There was a statistically significant difference in the triglyceride levels between carriers and non-carriers of the risk allele (A). Its presence was further associated with lower log-transformed triglyceride levels after adjusting for confounding factors ($\beta=-0.154$, $p\text{-value}=0.003$). When adherence to MD was lower the genetic effect was eliminated ($p\text{-value}=0.406$), whereas in the higher MDS group the effect was enhanced ($\beta=-55.56$, $p\text{-value}=0.001$).

Conclusions: These novel results suggest that the relation of the FTO rs9939609 variant with lower triglyceride levels depends on the dietary pattern; a lower adherence to MD outweighs the genetic predisposition.

^[1]Panagiotakos D. et al. Adherence to the mediterranean food pattern predicts the prevalence of hypertension, hypercholesterolemia, diabetes and obesity, among healthy adults; the accuracy of the MedDietScore. *Prev Med* 2007 doi: 10.1016/j.ypmed.2006.12.009.

O021 / #955

THE INFLUENCE OF TREATING HEPATITIS C IN HIV POSITIVE CO-INFECTED INTRAVENOUS DRUG USERS

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Background and Aims: Hepatitis C infects over 5 million people in the European Union. It is estimated that, worldwide, 2-15% of the HIV+ population is infected with hepatitis C, 90% of which

are intravenous-drug users. These patients have higher mortality as the infection with HIV fastens the progression of hepatitis C infection. However, the impact of the hepatitis C virus in the progression of the HIV infection is unclear. This study focuses on drug-user patients coinfecting with HIV and hepatitis C under treatment with antiretroviral drugs and direct-acting antivirals in a combined therapy center.

Methods: A retrospective cohort study between January 2015 and June 2019 including patients coinfecting with HIV and Hepatitis C under combined therapeutics.

Results: We treated 131 patients (90.1% male and 9.9% female with a mean age of 48.9years) The antiretroviral agents more used were abacavir/lamivudine/efavirenz (60.3%; n=79). The direct-acting antivirals preferred were sofosbuvir/ledipasvir (78%; n=103). The Sustained Viral Response to treating hepatitis C at 12 weeks was 97.5%. An increase of 0,24% in absolute count and 7,0% in percentual count of CD4+ T cells was verified. The suppressed HIV viral load increased from 95.1% (n=117) to 99.2% (n=122) after achieving Sustained Viral Response. No patients abandoned the treatment.

Conclusions: Treating hepatitis C infection improved the immunological status as seen by the increase of CD4+ T cells which may contribute to a greater cell mediated immunity. However, to fully understand the impact of the treatment of hepatitis C in the HIV infection a larger sample of patients and a deeper study of anti-inflammatory cytokines are needed.

O022 / #311

IMPACT OF AN ANTIMICROBIAL STEWARDSHIP PROGRAMME ON THE PRESCRIPTION OF CARBAPENEMS AND QUINOLONES

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Background and Aims: An Antimicrobial Stewardship Programme (AMSP) has been implemented in our hospital in the second semester of 2017. One of the goals was the reduction of the consumption of carbapenems and quinolones. The evolution of the consumption of these drugs during the three years after implementing this programme has been evaluated.

Methods: We analysed the prescriptions of carbapenems and quinolones among inpatients between July 1st 2017 and March 31st 2020. The clinician reviewed each prescription and intervened, when necessary, directly with the prescriber. Antimicrobial consumption was calculated following the Nordic Council definition (2018 update) for the daily defined dose.

Results: In the first year we identified 234 (35.0%) non-conform prescriptions. Recommendations were issued in 108 cases; 83.3% were accepted. In the second year we identified 284 (34.5%) non-conform prescriptions. Recommendations were issued in 215 cases, of which 94.0% were accepted. The consumption of quinolones and carbapenems was reduced, respectively, by 18.0% and 8.6% in the first year and by 55.7% and 10.3% in the second year. Our preliminary data for the third year shows 24.3% non-conform prescriptions. Recommendations have been issued in 278 cases; 98.2% were accepted. The consumption of carbapenems and quinolones is predicted to decrease even further by 25.8% and 8.2%, respectively.

Conclusions: We found a reduction in the consumption of quinolones and carbapenems and an increase in compliance with the AMSP recommendations, reflecting a better education for prescription. This favours a more adequate use of antimicrobials, with lesser predisposal to the development of resistance.

O023 / #549

HYPOPARATHYROID PREGNANCY: RETROSPECTIVE ANALYSIS OF TWENTY CASES

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Background and Aims: Hypoparathyroidism is a relatively uncommon medical disorder in pregnancy, and, if diagnosed before pregnancy, it should be managed before conception. We aimed to reveal the clinical and laboratory features of pregnant women with permanent hypoparathyroidism.

Methods: We retrospectively analyzed the pregnant women with permanent hypoparathyroidism and without any comorbid illness. Age, *gravida*, parity, etiology and duration of hypoparathyroidism, medications, and laboratory tests, history of previous hypoparathyroid pregnancy, gestational diabetes mellitus, hospitalization due to hypocalcemia, follow-up, severe hypocalcemia at least once in pregnancy (corrected Ca (CCa) <7.5 mg/dL) were analyzed.

Results: Mean age of the patients (n=20) was 35.10 (±4.83). Mean duration of hypoparathyroidism was 74.55 months. Only 1 patient had idiopathic hypoparathyroidism. Severe hypocalcemia was detected in 55% (n=11) in total, and in only 25% (n=1) of 4 patients who did not use calcitriol in pregnancy. In pregnancy, 80% (n=16) of the patients used calcitriol, 40% (n=8) cholecalciferol, 65% (n=13) calcium carbonate, and 20% (n=4) magnesium. Two patients left off calcitriol and used only CaCO₃ when became pregnant. Calcitriol dosage was higher in 3rd trimester of pregnancy comparing to pregestational period (p=0.001), but no change was found in CaCO₃ dosage, CCa or phosphorus level.

Conclusions: To our knowledge, our study is the first to analyze such a high number of pregnant women with hypoparathyroidism.

Biochemical hypocalcemia may frequently be observed in pregnancy with hypoparathyroidism. We recommend delicate dose adjustment based on the clinical background.

O024 / #274

PREDICTORS FOR CANDIDEMIA IN INTERNAL MEDICINE: A NEED FAR TO BE SATISFIED

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Background and Aims: Candidemia is a challenging clinical condition burdened by relevant mortality and morbidity. Identification of patients with high suspicion of candidemia might lead to more prompt diagnosis and therefore better outcome. Aim of this analysis is to evaluate the predictive value of some risk assessment models (RAMs) for candidemia recently developed for the specific setting of Internal Medicine (IM), referring to the data collected through a registry promoted by the Italian Scientific Society of IM FADOI.

Methods: The characteristics of patients enrolled in a national registry promoted by FADOI were matched with the RAMs proposed by Falcone et al.^[1], Sozio et al.^[2] and Atamna et al.^[3].

Results: In the registry promoted by FADOI a total of 111 patients with candidemia confirmed by blood culture were enrolled. By analyzing the clinical characteristics of these patients, 29.7%, 37.8% and 1.8% of them would have been identified as at high risk of candidemia by applying the RAMs of Falcone et al., Sozio et al. and Atamna et al., respectively.

Conclusions: In the specific setting of IM, the identification of an effective predictive tool for early recognition of patients at high risk of candidemia remains an unmet issue. Timely selection of patients at high risk of candidemia probably needs research that uses larger cohorts of derivation and validation than those studied so far, or bundle strategies that integrate clinical variables and rapid diagnostic tests.

^[1]Falcone M et al. Assessment of risk factors for candidemia in non-neutropenic patients hospitalized in Internal Medicine wards: A multicenter study. *Eur J Intern Med* 2017;41:33-38. doi: 10.1016/j.ejim.2017.03.005.

^[2]Sozio E et al. A prediction rule for early recognition of patients with candidemia in Internal Medicine: results from an Italian, multicentric, case-control study. *Infection* 2018;46(5):625-633. doi: 10.1007/s15010-018-1162-0.

^[3]Atamna A et al. Predicting candidemia in the internal medicine wards: a comparison with gram-negative bacteremia-a retrospective study. *Diagn Microbiol Infect Dis* 2019;95(1):80-83.

O025 / #443

RENAL INVOLVEMENT IN SARCOIDOSIS: REVIEW OF SIX CASES AT ONE CENTER

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Background and Aims: Sarcoidosis is an idiopathic multisystem granulomatous disease. Renal involvement in sarcoidosis is rare. It is usually due to abnormal calcium balance or parenchymal involvement. The aim of our study was to analyze the epidemiologic, clinical, paraclinical, therapeutic features and the outcome of sarcoidosis in patients with renal manifestations.

Methods: We carried a descriptive retrospective study including 6 patients with sarcoidosis, hospitalized in the nephrology department of Rabta Hospital of Tunisi between 2012 and 2018. Renal biopsy was performed for all patients.

Results: Our series involved 5 women and one man with a mean age of 41.6 years. All patients presented with renal failure on admission. Laboratory tests showed normal calcium levels in five cases. One patient had hypercalcemia. Hypercalciuria was noted in one case. The angiotensin-converting enzyme was measured in 3 cases and it was normal. Extra-renal manifestations were: pulmonary interstitial syndrome (4 cases), anterior granulomatous uveitis (2 cases), cutaneous lesions (2 cases), cardiac sarcoidosis (1 case), neurosarcoidosis (1 case), hepatic sarcoidosis (1 case), parotid gland sarcoidosis (1 case) and polyarthritis (1 case). Kidney biopsy showed granulomatous interstitial nephritis in five patients while the other patient had crystal nephropathy associated to interstitial nephritis without granuloma. All patients initially received oral prednisolone (1 mg/kg/day) with subsequent tapering. One patient was treated with inhaled corticosteroids for diffuse parenchymal lung involvement and two patients were put on immunosuppressive therapy (azathioprine). No patient required dialysis. After a mean follow-up of 57 months, the outcome was marked by the improvement of serum creatinine in 4 patients, in whom one patient showed a new recurrence of renal sarcoidosis. Two patients reached end-stage renal disease.

Conclusions: Renal involvement is rare in sarcoidosis. Early diagnosis with appropriate treatment must be set early in order to prevent progression to chronic renal failure.

O026 / #789

RISK FACTORS AND PROGNOSTIC PREDICTORS OF ACUTE KIDNEY INJURY IN ADULT LEPTOSPIROSIS

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Background and Aims: Leptospirosis is the most important zoonosis in the world. Acute kidney injury (AKI) is a prominent feature of leptospirosis. There is a broad spectrum of renal pathological changes. This study aimed to investigate the risk factors and prognostic predictors of AKI in leptospirosis.

Methods: This was a retrospective study done in a tertiary care center in Southern India. The medical records of all patients who were admitted and treated for leptospirosis infection from January 2015 to November 2020 were analyzed. Demographic, clinical and laboratory data were compared between the groups and analyzed. Multiple logistic regression was performed to analyze the possible risk factors and predictors of prognosis associated with AKI in leptospirosis.

Results: Among the 258 adults, 163 (63.2%) were males and 95 (36.8%) were females. 222 (84%) patients were below the age of 65 years while only 36 (14%) patients were above the age of 65 years. Among these patients, 69 (26.7%) patients developed. Association between leptospirosis associated AKI and various risk factors were analyzed using Pearson chi square test which showed significant association with diabetes (P=0.002, OR=3.081), hypertension (P=0.0003, OR=5.075). Patients with AKI were older in which 38.9% patients were in the >65 years group. Predictors for AKI were leukocytosis (P=0.009, OR=2.109), hyperbilirubinemia (P=0.05, OR=2.481).

Conclusions: Identification of features like diabetes, hypertension, leukocytosis, hyperbilirubinemia should alert the clinician on risk of developing AKI in leptospirosis. Prompt antibiotic treatment, adequate hemodynamic resuscitation, and early renal support are the key success in the treatment of leptospirosis-associated AKI.

O027 / #212

PHYSICIAN ASSESSMENT AND FEEDBACK DURING QUALITY CIRCLE TO REDUCE LOW-VALUE SERVICES IN OUTPATIENTS: A PRE-POST QUALITY IMPROVEMENT STUDY

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Background and Aims: The impact of the Choosing Wisely (CW) campaign is debated as recommendations alone may not modify physician behavior. The aim of this study was to assess whether behavioral interventions with physician assessment and feedback during quality circles (QCs) could reduce low-value services.

Methods: Pre-post quality improvement intervention with parallel comparison group involving outpatients followed in a Swiss

managed care network, including 700 general physicians (GP) and 150,000 adult patients. Interventions included performance feedback about low-value activities and comparison with peers during QCs. We assessed individual physician behavior and health care use from laboratory and insurance claims files between August 1, 2016, through October 31, 2018. Main outcomes were the change in prescription of three low value services six months before and six months after each intervention: measurement of prostate specific antigen (PSA) and prescription rates of proton pump inhibitor (PPI) and statins.

Results: QC intervention with physician feedback and peer comparison resulted in lower rates of PPI prescription (pre-post mean prescriptions per GP 25.5±23.7 vs 22.9±21.4, p-value<0.01; PSA measurement (6.5±8.7 vs 5.3±6.9 tests per GP, p<0.01; and statins (6.1±6.8 vs 5.6±5.4 prescriptions per GP, p<0.01). Changes in prescription of low-value services among GP who did not attend QCs were not statistically significant over this time period.

Conclusions: Our results demonstrate a modest but statistically significant effect of QCs with educative feedback in reducing low-value services in outpatients with low impact on coefficient of variation.

O028 / #41

ANALYSIS THROUGH QUALITY CRITERIA IN PALLIATIVE SEDATION: COMPARISON BETWEEN MEDICAL SPECIALTIES

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Background and Aims: Describing all the aspects that palliative sedation encompasses is essential for a correct approach to this process. Our objective is to analyze possible differences regarding quality criteria in palliative sedation between different units.

Methods: Data were collected from all deaths from the Palliative Care, Internal Medicine and Oncology units of our hospital during the second semester of 2019. The variables analyzed through the medical history were: age, gender, referring physician, sedation, initiation of sedation by referring or on-call doctor, symptom, patient capacity, survival after sedation, consent and drug. Chi square was performed between qualitative variables and Kruskal Wallis between qualitative/quantitative variables. SPSS 20.0 was used.

Results: More than 60% of the patients were over 75 years old; 51% percent were women. Sedation was indicated in 52%, with a significant difference between services, less frequently in Palliative (26%) compared to Internal Medicine (56%). There was

no significant difference in survival time after sedation ($p=0.079$). There was a significant difference in terms of the description of the refractory symptom, always reflected by Palliatives (100%) versus Oncology (30%) and Internal Medicine (25%). The same happened with the capacity, consent and drug used. There was no significant difference in the frequency of sedation by the doctor on call ($p=0.355$).

Conclusions: The differences described point to the benefit of reinforcing training in all medical specialties that can initiate palliative sedation.

O029 / #970

BLOOD PRESSURE IN A POPULATION OF A RURAL AREA OF RWANDA: PRELIMINARY DATA

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Background and Aims: Arterial hypertension likely affects millions of people in Africa and is the most important cause of heart disease and stroke. In Sub-Saharan Africa, the burden of hypertension is a rapid growing health threat. The aim of our study was to perform a screening of the local population living in the rural area of the District of Nyaruguru (Rwanda) to determine the prevalence of high blood pressure (BP).

Methods: Between February and July 2020, instructed health care providers collected some anthropometric data (such as height and weight) and measured BP three times in a sitting position with a validated oscillometric device (OMRON HEM-7322U).

Results: A total of 7336 subjects participated to the screening, with median age of 32 (IQR 21, 47) years; 4053 (55%) were female, age 35 (23, 49) years; 3283 (45%) were male, age 30 (20, 44) years ($p < 0.001$). B MI was 20.7 (19.0, 22.3) in males and 21.8 (20.0, 23.8) in females ($p < 0.001$). The mean of the last two BP measurements was 119.5 ± 15.2 mmHg. Males had a higher SBP 120.1 ± 14.0 mmHg compared to females 118.6 ± 16.1 mmHg ($p < 0.001$). SBP ≥ 140 mmHg in 642 subjects (8.8%), without differences between males (8.4%) and females (9.0%); $p=0.36$.

Conclusions: Surprisingly, in a very rural peripheral region where the average age of the inhabitants is relatively low, about 9% of the subjects examined have abnormal blood pressure values. These data confirm the need to implement also in rural areas of Rwanda an adequate strategy for the prevention, diagnosis and treatment of hypertension.

O030 / #956

CONTINUOUS WIRELESS MONITORING IN INTERNAL MEDICINE UNIT GOES FROM HOSPITAL TO THE FIELD TO IMPROVE MANAGEMENT OF COMPLEX PATIENTS: GREEN LINE H-T STUDY PRELIMINARY RESULTS

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Background and Aims: In the Internal Medicine Unit (IMU) are increasing patients with serious illness, under acute exacerbation of previous diseases needing high intensity care and evaluation of clinical deterioration risk. Literature reported different results (3.5-15.1%) about major complications (MC) in patients discharged at home, and there are no telemedicine randomized trials.

Methods: Prospective, randomized, controlled, open-label, multi-center study for the evaluation of critically ill patients admitted in IMU and sent to subacute managed care unit or to earlier home discharge to evaluate the effectiveness of wireless monitoring of clinical conditions vs. traditional clinical monitoring on outcomes. Continuous wireless vital parameters and blood glucose monitoring are assured by WIN@Hospital and Dexcom G6 devices. Overall planned sample size is 300 patients.

Results: Since September 2019 70 patients were enrolled (M 30/F 40), mean age 76.8 (50% >80 years), Comorbidity: Cumulative Illness Rating Scale CIRS-CI: 4, CIRS SI: 1.8. About 30% scored BRASS (Blaylock Risk Assessment Screening Score) ≥ 20 , Barthel mean value 63,2; Exton-Smith scale 15,7, Charlson Index 3,8, indicating need for step-down care. Fadoi Complimed score results are being processed. Overall major complications were 15% at 5 and 30 days of follow-up. The main complications highlighted by continuous home monitoring were cardiac arrhythmias, glycemic decompensation and drug interactions. A trend towards reduction of MC in experimental group appears to be seen.

Conclusions: Integrating hospital and field is a new challenge of telemedicine allowing to improve patients' management, both during hospital stay and after discharge, reducing the risk of early re-hospitalization and inappropriate access to the emergency room.

O031 / #326

EFFICACY OF BETA-BLOCKERS IN PREVENTING TRASTUZUMAB-INDUCED CARDIOTOXICITY AMONG ADULT BREAST CANCER PATIENTS

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Background and Aims: Cardiac dysfunction is a significant toxicity associated with HER2-directed therapy - the risk for which can be increased by concomitant or antecedent exposure to other cardiotoxic agents particularly anthracyclines. This study sought to assess the efficacy of beta-blockers in preventing trastuzumab-induced cardiotoxicity.

Methods: A systematic search using MEDLINE, SCOPUS, CENTRAL, and Europe PMC databases was conducted until October 11, 2020. Included were randomized controlled trials of adult breast cancer patients on trastuzumab therapy and given beta-blockers (versus placebo). The primary outcome was a change in left ventricular ejection fraction (LVEF) from baseline to end of study. Secondary outcomes measured were changes in cardiac biomarkers (e.g. BNP), and safety. Validity of included studies was assessed using the Cochrane Risk-of-Bias tool. Pooled estimates for each outcome were reported as weighted mean differences.

Results: We identified 3 published trials (N=396). Beta-blocker therapy was associated with significantly higher LVEF on follow-up versus placebo (Mean Difference 1.84; 95% CI: 0.36-3.32; P=0.01; I²=63%). There was a trend toward benefit in the prevention of marked increases in BNP among those treated with beta-blockers versus placebo (Mean Difference 2.40; 95% CI: -1.70-5.87; P=0.18; I²=47%). A narrative description of adverse cardiac events and other cardiac imaging parameters was reported as well.

Conclusions: Beta-blockers appear to be well-tolerated and effective in preventing trastuzumab-induced cardiotoxicity, as well as in potentially attenuating elevations in serum BNP levels among adult breast cancer patients.

O032 / #222

SEVERE ANEMIA: IS THE VALUE OR TIME THAT MATTERS?

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Background and Aims: Severe anemia is a common problem at the emergency department. Aim was to assess the severity of anemia according to its level and duration, in terms of development of ischemic electrocardiographic (ECG) changes and hemodynamic instability.

Methods: In 115 patients (58.3% women), mean age 77.7±11.4 (M±1SD) with hematocrit value≤24% or hemoglobin value ≤8 g/dl, hematocrit and hemoglobin levels, ECG abnormalities compatible with anemia, medical history, medications, and reason of admission were recorded. Chi-square and Man-Whitney U tests were used to compare categorical and continuous data respectively.

Results: 75 patients (65.2%) had hemoglobin value≤6.5 g/dl and 19 patients (16.5%) suffered from acute anemia. When we compared the patients according to the level of anemia, we found no statistically significant differences between the two groups in terms of the presence of ECG changes or hemodynamic instability. When we compared the patients according to the anemia duration, we found that patients with acute anemia were more likely to have lowest systolic (U=548.5, p=0.006), diastolic (U=546.5, p=0.009) and mean pressure (U=541, p=0.005) and T wave abnormalities (χ²=5086, p=0.024), while ST segment depression has a marginal trend toward significance (χ²=3.558, p=0.059). Concerning heart rate, patients with acute anemia had higher mean heart rate (87.8/min vs 83.8/min), but this difference didn't reach statistical significance. This result was not statistically significant even when we excluded from the analysis those receiving medication with bradycardic effect.

Conclusions: Although the value of the anemia looks more impressive, its duration (acute or chronic) is what determines the severity.



E-POSTER DISCUSSIONS

PD001 / #146

EIGHTEEN-MONTH INTERIM ANALYSIS OF EFFICACY AND SAFETY OF GIVOSIRAN, AN RNAI THERAPEUTIC FOR ACUTE HEPATIC PORPHYRIA, IN THE ENVISION OPEN LABEL EXTENSION

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Background and Aims: Acute hepatic porphyria (AHP) is a family of rare genetic diseases due to enzyme defects in hepatic heme biosynthesis. Induction of 5-aminolevulinic acid synthase 1 (ALAS1), leads to accumulation of heme intermediates, 5-aminolevulinic acid and porphobilinogen that may result in neurovisceral attacks. ENVISION is an ongoing study evaluating efficacy and safety of givosiran in symptomatic AHP patients in

a 6-month double blind (DB) period and a 30-month open label extension (OLE) period. Here, the effects through Month 18 of the OLE are reported.

Methods: ENVISION (NCT03338816) is a Phase 3 global, randomized, placebo-controlled study. Exploratory efficacy outcome measures included composite porphyria attacks (i.e. those requiring hospitalization, urgent care, or IV-hemin at home). Analyses were descriptive and represent the timepoint where patients completed at least their 18-month visit.

Results: As of January 10, 2020, 93/94 patients entered the OLE (placebo/givosiran=46; givosiran/givosiran=47) with mean exposure to givosiran 12.97 [SD=3.6] months and 18.86 [3.6] months, respectively, and maximum exposure of 25.1 months. Continued treatment in givosiran/givosiran patients led to a median annualized attack rate (AAR) of 0.58 (range: 0–16.2) through Month 18. Patients in the placebo/givosiran group had an AAR of 1.62 (range: 0–11.8) after receiving givosiran for ≥ 12 months during the OLE, compared with 10.65 (range: 0–51.6) during the DB period. Average number of attacks declined for both groups. There were no new safety concerns.

Conclusions: In an ongoing Phase 3 study, givosiran demonstrated maintenance of clinical efficacy and an acceptable safety profile consistent with that previously observed.

PD002 / #485

THE CHARACTERISTICS OF TOPHACEOUS AND NON-TOPHACEOUS GOUT

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Background and Aims: Tophaceous gout is characterized by the presence of tophi, uratic tissue deposits whose development is correlated with the rate and duration of hyperuricemia. Tophi develop in approximately 12–35% of patients with gout. We aim to describe the characteristics of gouty patients with and without tophi.

Methods: A retrospective study of gouty patients meeting the ACR EULAR 2015 criteria, hospitalized in a rheumatology department from January 2004 to July 2019.

Results: Among 107 patients, tophaceous gout was found in 20 patients (18.7%). Patients with tophi were younger (55 vs.

64 years; $p=0.02$). Men were the most affected (70% vs. 42%; $p=0.02$). The duration of gout was longer (65 vs. 26 months; $p=0.003$). Chronic gouty arthritis was more common (75% vs 41%; $p=0.006$). Nephrolithiasis were more frequent (30% vs 12%; $p=0.06$). Metabolic syndrome (0% vs 38%; $p=0.005$), android obesity (7% vs 56%; $p=0.001$) and hypertension (35% vs 58%; $p=0.05$) were less common. Cardiovascular disease, congestive heart failure, chronic kidney failure, and diabetes were similar in gout with and without tophi. Despite urate lowering therapies, uric acid levels were higher in tophaceous gout (mean: 449 mmol/l vs 369 mmol/l; $p=0.02$) with a target level reached in 15% vs 18% ($p=0.7$).

Conclusions: In this study, tophaceous gout wasn't more associated with cardiovascular disease and its risk factors than non-tophaceous gout. It was mainly associated with joint and kidney complications. Recommended targets for uric acid levels remain a rarely achieved goal for patients with and without tophi.

PD003 / #601

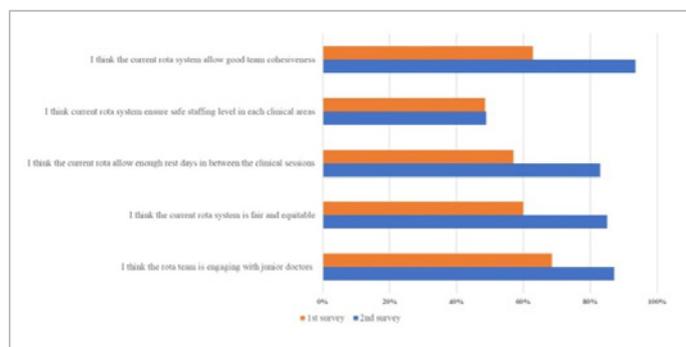
QUALITY IMPROVEMENT PROJECT (QIP): IMPACT OF CLINICIAN INVOLVEMENT IN JUNIOR DOCTOR ROTA MANAGEMENT IN QUEEN ELIZABETH HOSPITAL KINGS LYNN (QEHLK)

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Background and Aims: NHS was placed under a huge pressure to cope with the service demand during COVID-19. Thus, a high intensity emergency rota was implemented to re-distribute the junior doctor workforce within the medical division in QEHLK. Due to the dynamic nature of emergency rota, a team of clinicians stepped in to help managing the rota system to ensure adequate staffing for safe patient care. With COVID-19 experience, a QIP was conducted to improve the rota system in the medical division using PDSA cycle to address poor management in QEHLK that was mentioned in previous GMC and deanery trainee feedback prior to the pandemic.

Methods: A new rota design was introduced in June 2020 as stepping down from emergency rota, taking into consideration



#601 Figure 1: Summary of outcome from 1st and 2nd survey.

of the regulators' recommendation and RCP guidance on safe staffing. Two cross-sectional surveys were conducted two months apart to explore junior doctors' views about key issues which included safe staffing levels, educational opportunities and clinician involvement in rota management.

Results: Action plan was implemented after reviewing valuable comments from the first survey and outcome from multiple feedback meetings with junior doctors. Great improvement on the rota system was clearly shown between two surveys in all aspects as illustrated in Figure 1.

Conclusions: Clinicians involvement was shown to have great positive impact on the rota system. It provided workforce that tailors to the service need, promoted junior doctors' engagement in the medical division and created more conducive working and learning environment for the junior doctors.

PD004 / #45

DEEP VEIN THROMBOSIS AND PULMONARY THROMBOEMBOLISM IN PALLIATIVE CARE: DIAGNOSIS, TREATMENT AND COMPLICATIONS

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Background and Aims: The diagnosis and treatment of deep vein thrombosis (DVT) and pulmonary thromboembolism (PE) is an area of scarce evidence in Palliative Care. Our objective was to analyze the patients with DVT/PE diagnosed in our Palliative Care Unit during 2019, the prescribed treatment and the secondary complications.

Methods: Patients with a diagnosis of DVT or PE were selected by ultrasound or CT angiography in the Palliative Care Unit of our hospital during 2019. The variables analyzed were: age, sex, discharge/death, neoplasia, metastasis, treatment with radiotherapy, chemotherapy, hormone therapy or immunotherapy, smoker, type of thrombosis, diagnosis that motivated the admission or accidental finding, symptoms, treatment and complications. Logistic regression was performed between quantitative and dichotomous variables and the Chi square test between dichotomous variables. SPSS 20.0 was used for statistical analysis.

Results: A total of 285 episodes of admission to Palliative Care were analyzed. Seven patients were diagnosed with PE (3 bilateral, 2 unilateral and 2 segmental), and 16 with DVT (usually iliofemoral), mostly with metastatic gastrointestinal neoplasia. Seven patients suffered serious complications secondary to anticoagulation, significantly higher in patients diagnosed with thrombosis at admission, as well as higher morbidity and mortality ($p < 0.05$).

Conclusions: It is likely that a more aggressive therapeutic strategy in those patients whose reason for admission was thrombosis was the reason why they suffered more serious complications.

PD005 / #260

INFLUENZA SURVEILLANCE UNDER THE SHADOW OF COVID-19 PANDEMIC: RESULTS OF THE 2019-20 HOSPITAL INFLUENZA SURVEILLANCE IN TURKEY

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Background and Aims: Surveillance systems provide real-time information on the extent and burden of infectious diseases and set a basis for pandemic preparedness and the needs of healthcare services. We aimed to define the seasonal epidemiology of influenza and respiratory syncytial virus among hospitalized patients with influenza like illness (ILI).

Methods: A prospective, epidemiological active surveillance study was conducted in accordance with Global Influenza Hospital Surveillance Network core protocol. Emergency units, acute and intensive care wards were screened daily. Eligible patients were swabbed and clinical data were collected. Real-time PCR based, multiplex FTD FLU/HRSV was used for documentation of viruses.

Results: Overall, 273 patients hospitalized with ILI were enrolled and swabbed of whom 194 (71.1%) were 5 year and older. Influenza positivity was detected in 84 (30.8%) and RSV positivity in 42 (15.4%) of the patients. Influenza peaked at 52nd week and 89.3% was influenza A. There were no influenza B cases under 5 years and between 50-64 years, whereas 69.1% of the RSV positivity was under 5 years of age. There was no sample after March 16, 2020 due to the COVID-19 pandemic. Overall influenza vaccine coverage was 9.5%. Thirty-seven patients (13.8%) required ICU admission, 18 patients (6.7%) died during the hospital episode. Outcomes were worse among those patients over 65 years of age.

Conclusions: Nearly one-third of the patients hospitalized with ILI

were positive for influenza. The results of this study are important to compare the effects of the SARS-CoV-2 infection and pandemic mitigation measures on the upcoming 2020-21 influenza season in the Northern Hemisphere.

PD006 / #347

MYOFIBROBLASTS SUSTAIN TH1/TC1 INFLAMMATION DURING GIANT CELL ARTERITIS

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Background and Aims: Vascular smooth muscle cells contribute to giant cell arteritis (GCA) pathogenesis by producing chemokines triggering the recruitment of pro-inflammatory T cells and monocytes. This study aimed to characterize interactions between resident cells of the vascular wall and T cells in GCA arteries.

Methods: Since November 2017, fragments of temporal artery biopsy (TAB) performed at Dijon hospital (France) was sent to our research unit and sections of healthy TAB were embedded in MATRIGEL  to obtain vascular cells which were analyzed by immunofluorescence, flow cytometry, RT PCR and confocal microscopy using desmin,   smooth muscle actin (  SMA), myosin heavy chain 11 (MHC11), and CD90 antibodies.

Results: Confocal microscopy analyses of GCA arteries showed that in vivo, neointima was mainly composed by myofibroblasts (MF) (  SMA+Desmin+MHC11lowCD90+) in contact of CD45+ cells and these MF expressed HLA DR, the phosphorylated STAT1 (pSTAT1) and in a lesser extent pSTAT3, strongly suggesting the activation of the IFN   signaling pathway rather than the IL-6 pathway. When MF cultivated in vitro were exposed to IFN   and TNF-  , their HLA DR and CD86 expressions were significantly increased. Also, in the presence of cultivated MF, the polarization of T cells towards Th1 and Tc1 cells (p  0.001) was maintained and was enhanced when MF were previously exposed to IFN   and TNF   (p =0.03).

Conclusions: MF play a role in the maintenance of Th1 vascular inflammation in GCA which could explain the occurrence of relapse when glucocorticoids are tapered. The implication of IFN-  in this process suggests that Janus Kinase inhibitors can be effective for GCA treatment.

PD007 / #439

USE OF DOACS IN CANCER PATIENTS WITH CVC-RELATED THROMBOSIS: A REAL-WORLD EXPERIENCE

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Background and Aims: Direct-oral anticoagulants (DOACs) are approved for venous thromboembolism (VTE) in cancer patients but data on central venous catheter (CVC)-related thrombosis are lacking. We compared efficacy and safety of DOACs to parenteral anticoagulation therapy in this setting.

Methods: We conducted a retrospective analysis of the cancer patients treated for CVC-related thrombosis at the 'Fondazione Policlinico Universitario A. Gemelli IRCCS' (Rome, Italy) from November 1st 2019 to October 30th 2020.

Results: We found 59 patients (mean age 59.3±12.1 years; 81.3% females) with active cancer and CVC-related thrombosis. Thrombosis was diagnosed by venous echocolor Doppler in 52 patients (88.1%). The median time of occurrence of thrombosis after CVC insertion was 116 days. 17 patients received anticoagulation with DOACs (DOAC group, n=17; 94.0% edoxaban, 6.0% apixaban). 42 patients were treated with parenteral anticoagulant therapy (HEPARIN group, n=42; 42.0% enoxaparin, 58.0% fondaparinux). Baseline characteristics were similar between DOACs and HEPARIN groups, except for haemoglobin levels, significantly higher in DOACs (12.8 gr/dl) than in HEPARIN group (11.4 gr/dL) p=0.003. After a median treatment time of 91 and 108 days in the DOAC and HEPARIN group, respectively, thrombosis recanalization occurred in 82% of patients in the DOAC group (95%CI 69.8-90.7) and in 79% of patients in the HEPARIN group (95%CI 66.4-88.5) (p=0.88). Three clinically relevant non-major bleeding events (according to the ISTH classification) were observed: 1 in the DOAC and 2 in the HEPARIN group.

Conclusions: In cancer patients with CVC-related thrombosis, DOACs appear to be as safe and effective as parenteral anticoagulants. Further studies are needed to substantiate this finding.

PD008 / #838

COVID-19: PERSISTENCE OF SYMPTOMS AND LUNG FUNCTIONAL DAMAGE 3-6 MONTHS AFTER HOSPITAL DISCHARGE.

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Background and Aims: Few data are currently available on persistent symptoms and late organ damage of patients who have suffered from COVID-19. This prospective study was aimed to evaluate the results of a follow-up program on patients discharged from our non-intensive COVID-19 ward during the first wave of COVID-19 pandemic.

Methods: 3-6 months after hospital discharge, COVID-19 patients underwent a follow-up program consisting of anamnesis, physical examination, response to a questionnaire, blood tests, ECG, compression venous ultrasound of lower limbs, thorax ultrasound and spirometry with DLCO.

Results: 59 (31M/28F, aged 68.2±2.8 years) of 105 patients underwent follow-up and were enrolled, 46 were excluded because of non-traceability, refusal or inability to provide informed consent. 22% of patients reported no residual symptoms, 28.8% 1 or 2 symptoms and 49.2% 3 or more symptoms, most frequently asthenia, exertional dyspnea, insomnia and anxiety. Among the inflammatory and coagulation parameters, only the median value of fibrinogen was slightly above normal. A deep vein thrombosis was detected in only 1 patient (1.7%). Chest ultrasound showed mild interstitial syndrome in 15 patients (25.4%), of which 10 (66.6%) reported exertional dyspnea. Diffusing capacity of the lungs for carbon monoxide was mildly or moderately reduced in 19 patients (37.2%), of which 13 (68.4%) complained of exertional dyspnea.

Conclusions: a consistent percentage of COVID-19 patients (78%) continue to complain of symptoms 3-6 months after hospital discharge. Exertional dyspnea was significantly associated with lung interstitial and diffusing capacity alterations. Extended follow-up is required to understand the evolution of symptoms and lung damage.

PD009 / #123

CLINICAL PREDICTORS OF OUTCOME IN INFECTIVE ENDOCARDITIS

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Background and Aims: Infectious endocarditis (IE) is serious infectious disease of heart valves and endocardium. Increasing incidence may be associated with more prevalent prosthetic heart valves (PHV) and devices. Overall mortality of IE remains high. Our aim was to assess clinical predictors of mortality and stroke among patients with IE.

Methods: A retrospective single-centre observational analysis was performed between 2010-2019. All patients with IE according to Duke's criteria were included. Demographic, clinical, microbiologic and echocardiographic data were reviewed. Clinical outcomes of interest were in-hospital mortality and stroke.

Results: Seventy-two patients with IE were included with median age of 74 years-old (IQR 68-83), 68% were male. The prevalence of IE of PHV and devices was of 32% (n=23). Surgical treatment (ST) was offered to 23 patients (32%). The following complications were identified: acute heart failure in 35%; acute stroke in 21%; severe valve insufficiency in 18%; endocardiac abscesses in 14%; spondylodiscitis in 13%. In-hospital mortality was of 20% among

patients with native valve IE and of 35% of patients with PHV or devices ($p=0.189$). Stroke was an independent predictor of in-hospital mortality (aOR 7.25; 95%CI 1.34-40.22; $p=0.023$). ST had a protective effect (aOR 0.08; 95%CI 0.01-0.77; $p=0.029$). Staphylococcus aureus bacteraemia was an independent predictor of stroke (aOR 7.38; 95%CI 1.33-41.09; $p=0.023$).

Conclusions: Almost one-third (32%) of patients had IE of PHV and devices. Acute stroke was an independent predictor of in-hospital mortality and Staphylococcus aureus bacteraemia was an independent risk factor for acute stroke. Surgical treatment was offered to 23 patients (32%) and was associated with better survival.

PD010 / #366

ASYMPTOMATIC CAROTID ATHEROSCLEROSIS CARDIOVASCULAR RISK FACTORS AND COMMON HYPERTRIGLYCERIDEMIA GENETIC VARIANTS IN PATIENTS WITH SYSTEMIC ERYTHEMATOSUS LUPUS

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Background and Aims: Alteration of triglyceride-rich lipoprotein metabolism and increased concentration of apoB containing particles, constitute the characteristic dyslipidemia of systemic lupus erythematosus (SLE) that confers increased cardiovascular risk. The objective is to identify the relationship with carotid atherosclerosis, dyslipidemia and common hypertriglyceridemia genetic variants in a population of SLE female.

Methods: Seventy-one SLE female were recruited. Carotid ultrasound, lipid profile and analysis of ZPR1, APOA5 and GCKR genes were carried out. Statistical analyses were performed to evaluate the relationship between the presence of carotid plaque, lipid parameters and allelic variants.

Results: SLE patients with carotid plaque had higher triglyceride concentrations than SLE patients without carotid plaque (1.5 vs 0.9 mmol/L, $p=0.001$), Non-HDL (3.5 vs 3.1 mmol/L, $p=0.025$) and apoB (1.0 vs 0.9 g/L, $p=0.010$). GCKR (c.1337C>T) C-allele was observed in 83.3% and 16.7% ($p=0.047$) of patients, respectively. GCKR (c.1337C>T) CC genotype (OR= 0.03; [95% CI] [0.002 to 0.53], $p=0.016$), and triglyceride concentrations (OR= 7.57; [95% CI] [1.43 to 40.19], $p=0.017$) were independently associated with carotid atherosclerosis.

Conclusions: Plasma triglyceride concentrations and CGKR CC homozygosity for CGKR gene are independent predictive factors of carotid atherosclerosis in women with systemic lupus erythematosus.

PD011 / #770

VITAMIN D SUPPLEMENTATION CAN REPLACE CATHETER ABLATION IN PATIENTS WITH HIGH PVC BURDEN AND VITAMIN D DEFICIENCY

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Background and Aims: Recent studies have shown that vitamin D is involved not only in bone metabolism but also in heart failure, atherosclerosis, and ischemic heart disease. Catheter ablation is recommended in patients with high PVC burden. We aimed to verify if vitamin D supplementation in patients with high PVC burden and vitamin D deficiency can reduce PVCs, and avoid catheter ablation.

Methods: This study included 62 patients recruited between February 2019 and September 2020. All patients were addressed for catheter ablation for frequent PVCs > 14,000 /24 hours. All patients had normal echocardiography with no sign of tachycardiomyopathy. All patients had vitamin D deficiency defined as 25-OH vitamin D < 30 ng/ml.

Results: Out of 62 patients, all had vitamin D deficiency with an average value of 21 ng/ml and high burden PVC with an average of 18,000 / 24 hours. In all 62 patients, PVCs had an RVOT morphology with a left bundle branch block appearance, inferior axis, and precordial transition in V3-V4. Vitamin D supplementation for 3 consecutive months with doses between 2000 and 5000 units / day led to an increase of 25-OH-vitamin D to 38.5 ng / ml and a decrease in the average number of PVCs to 3600 PVCs / 24 hours. Under these conditions, with a low to moderate PVC burden, catheter ablation was considered unnecessary and thus, avoided.

Conclusions: Patients with vitamin D deficiency may have benign ventricular PVCs originating from RVOT. A decrease in PVCs burden through vitamin D supplementation makes catheter ablation unnecessary.

PD012 / #545

EXTENDED THERAPY WITH LOW-DOSE RIVAROXABAN TO PREVENT RECURRENCE OF VENOUS THROMBOEMBOLISM IN GYNECOLOGICAL CANCER PATIENTS.

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Background and Aims: Gynecological cancer patients represent a high-risk population for venous thromboembolism (VTE) and its recurrences (Streiff 2018, Cheng 2014), but it is unclear whether extended anticoagulation therapy over 3-6 months is indicated and safe in this population. The present study provides real-life data on the extended use of rivaroxaban 10 mg/day to prevent VTE recurrence in gynecological cancer patients.

Methods: We retrospectively analyzed our clinical records of gynecological cancer patients receiving extended therapy with rivaroxaban 10 mg/day to prevent VTE recurrence. All patients had previously completed a cycle of at least 3 months of full anticoagulation for the treatment of acute VTE. Primary efficacy and safety outcomes were VTE recurrences, major bleedings, clinically relevant non major bleeding (CRNMB); secondary efficacy and safety outcomes were superficial venous thrombosis (SVT), myocardial infarction, stroke, death from any cause, minor bleeding.

Results: 30 patients (18 ovarian, 8 uterine, 5 breast cancers) were evaluated, with 158 months of total drug exposure time (median duration 4 months, IQR 3-8). No VTE recurrences were observed. There was one case of SVT. Two patients died for reasons unrelated to VTE. No major bleeding, one CRNMB and four minor bleedings occurred. Incidence rates per year was 0.0% for major bleeding and VTE recurrences, 7.6% for CRNMB and SVT, 30.4% for minor bleeding and 15.2% for death for any cause.

Conclusions: Extended therapy with rivaroxaban 10 mg for VTE secondary prevention appears to be effective and safe in patients with gynecological cancers; large-scale studies are needed to confirm these data.



AS01. AMBULATORY MEDICINE

PV001 / #151

DESCRIPTIVE STUDY OF THE LEVEL OF COMFORT OF CANCER PATIENTS IN THE COVID-19 ERA

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Background and Aims: The aim of our study was to assess the comfort level of cancer patients in the COVID-19 era.

Methods: This study was cross-sectional. We have included cancer patients treated with chemotherapy at the department of medical oncology at Habib Bourguiba University Hospital. The period of data collection was between June and July 2020.

Results: These were 50 cancer patients with an average age of 52 years. Most patients had breast cancer (30% of cases). The average score for overall comfort seems good (equal to 70). In addition, the average score of the most widespread comfort was in the psychospiritual dimension which was equal to 31.62. On the other hand the average most affected score was the social dimension quantified at 11.18. Regarding the cross-referencing of the types of overall comfort and the socio-demographic data, we noticed that the transcendence was very important in patients aged between 45 and 65 years (46%).

Conclusions: Beyond this work, comfort remains a fundamental need for any cancer patient especially in the COVID-19 era. This is why we must assess the patient's needs in an appropriate and continuous manner, taking into account the variables intervening in the situation to have improved patient comfort.

PV002 / #409

ANALYSIS OF THE USE OF CONTACT TELEMONITORING. ATLAN_TIC PROJECT

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Background and Aims: Analyzing the use of telemonitoring in a clinical trial with patients with advanced cardiac/respiratory diseases.

Methods: Multi-center clinical trial including patients with heart failure with NYHA \geq III and/or chronic respiratory failure with MRC \geq III and/or satO₂ <90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Analysis of the use of the technology throughplanned/realized measures and generation of alerts. Statistical package SSPsv20. Approved by the Research Ethics Committee.

Results: 119.78 \pm 88.36 parameter measurements were made. They generated 31.31 \pm 32 alerts per patient, distributed among absence alerts (21.98 \pm 30.77), assistance if the alert lasts 24 hours (9.71 \pm 9.88) and immediate assistance (3.08 \pm 3.63). These alarms generated 10.13 \pm 9.3 severities, one every five days. The distribution of severity was: 5.49 \pm 4.7 low, 2.66 \pm 3.03 intermediate and 0.89 \pm 10.9 high. The medium values were: weight 77.69 \pm 19.39, systolic blood pressure 120.72 \pm 18.63, diastolic blood pressure 68 \pm 9.50, HR 75.89 \pm 11.05 and oxygen saturation 93.92 \pm 3.48. The medium of yellow or red alarms were: 1.58 \pm 1.97/0 weight, 4.54 \pm 6.81/1.12 \pm 2.01 systolic blood pressure, 32.51 \pm 17.98/0.52 \pm 1.48 heart rate and, 1.56 \pm 3/1.4 \pm 2.67 oxygen saturation. There were 0.32 \pm 0.41 incidents per patient and 1.23 \pm 0.37 disconnections per patient.

Conclusions: The telemonitoring of constants result in an attendance every 5 days, most were of low severity. The

parameters that generated the most alarms were heart rate and blood pressure. Stricter adjustment of alarm levels would decrease the care burden without compromising safety. A high number of absence alarms was found, which justifies establishing mechanisms for adherence to the technology.

PV003 / #481

PROBABILITY OF APNEA ACCORDING TO THE BERLIN QUESTIONNAIRE AND BODY MASS INDEX, NECK CIRCUMFERENCE AND BLOOD PRESSURE VALUES IN A COMMUNITY IN BRAZIL

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Background and Aims: Obstructive sleep apnea and hypopnea syndrome (OSAHS) is difficult to control and damaging to cardiovascular and metabolic health, as it may be a triggering or disturbing factor for hypertension and diabetes and a weight gain facilitator. The objective is to evaluate the presence of high risk (HR) for OSAHS and its correlation with body mass index (BMI), neck circumference (NC), glycemia and pressure values.

Methods: Berlin questionnaire applied to 94 participants in a community action in Rio de Janeiro-Brazil. Neck measurements, blood pressure (mean of three measurements) and hemoglycotest were performed. For analysis, Student's t-test with Prism 8.0 (GraphPad, USA) were used.

Results: 55% of participants had high probability for OSAHS, comparing to the low risk group, they had greater neck circumference, higher blood pressure values and higher mean body mass index (Table #481). In addition, in HR group 90% took less than 150 minutes/week exercise, against 74% of those with low risk (LR) of OSAHS.

Conclusions: Patients with higher probability of OSAHS have higher values of BMI, NC and blood pressure. They tend to have

	High Risk for OSAHS	Low Risk for OSAHS	p-value
Neck circumference (cm)	40	36	p <0.05
Systolic Blood Pressure (mmHg)	141	123	p <0.05
Body Mass Index (kg/cm ²)	32	27	p <0.05
Blood Glucose levels (mg/dl)	113	105	p=0.34

#481 Table: Comparison of patient according to Berlin questionnaire for OSAHS probability (n=94) OSAHS: Obstructive sleep apnea and hypopnea syndrome

higher glycemic values and to exercise less. It is essential to identify the presence of OSAHS and interfere in it's progression especially thru lifestyle changes, particularly in patients with the clinical disorders aforementioned.

Lavie P, Hoffstein V, Sleep apnea syndrome: a contributing factor to resistant hypertension. Sleep 2001; doi: 10.1093/sleep/24.6.721

Céron E.M., Mateos R.C., Garcia-Rio F., Sleep apnea-hypopnea syndrome and type 2 diabetes. A reciprocal relationship? Arch Bronconeumol, 2015; 10.1016/j.arbres.2014.06.017

PV004 / #544

EFFECTS ON MORTALITY OF CONSTANT TELEMONITORING IN PATIENTS WITH ADVANCED HEART AND/OR RESPIRATORY FAILURE. ATLAN_TIC PROJECT

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Background and Aims: To analyze the effect on mortality of bio-parameters home monitoring in patients with advanced cardiac and/or respiratory.

Methods: Multicenter clinical trial including patients with heart failure with NYHA≥III and/or chronic respiratory failure with MRC≥III and/or oxygen saturation <90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Analysis of mortality in percentage and time of death. Statistical package SSPsv20. Approved by the Research Ethics Committee.

Results: 510 patients from 5 hospitals were included, 255 patients in each arm. Median age was 76,5 years, being 54.5% females. Cardiac inclusion criteria were presented for 321 patients (63.1%), respiratory 71 (13.9%) and 117 (22.9%) both criteria. The 67.6% had multimorbidity. Median score of the Charlson index of 2 points, PALIAR index of 0 points (predicting 21% mortality at 6 months) and PROFUND index of 6 points (predicting 20% mortality at one year). A total of 82 patients (16.1%) died. They died 70.81±55.5 days after their inclusion in the study (95% confidence interval in PAC 69±8.19, in TELEPAC 72.24±8.76, p=0.93). There were no significant differences between the two intervention arms (PAC 19.3%, TELEPAC 12.9%, p=0.136), neither analyzing by prognostic indexes nor inclusion in the cold months. Differences were found in patients included in non-cold months (PAC 23.1%, TELEPAC 15.6%, p=0.007).

Conclusions: The mortality in the study was slightly lower than expected according to the PALIAR and PROFUND indexes. No statistically significant differences were found between both intervention arms, but a clinically significant difference was found in favor of the telemonitoring arm.

PV005 / #603

INFERIOR VENA CAVA FILTER: DIFFERENCES BETWEEN SURGICAL AND NON-SURGICAL PATIENTS. A RETROSPECTIVE ANALYSIS

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Background and Aims: Inferior vena cava filters (IVCF) are implanted when anticoagulant therapy for venous thromboembolism (VTE) is contraindicated. In this study we investigated differences between patients who underwent IVCF implantation because they had to undergo a surgical procedure (Surgical Group) and those who did not have surgical reasons (Non-Surgical Group).

Methods: We retrospectively analysed the clinical charts of 178 consecutive patients who underwent IVCF implantation at our University Hospital over a period of 8 years. Patients were distinguished in a Surgical (n=97, 54.5%) and Non-Surgical Group (n=81, 55.5%). Demographic, clinical and laboratory data were compared, as well therapeutic information and outcomes.

Results: Thrombocytopenia and recent bleeding, in particular major bleeding (46.9% vs 30.9%; p=0.04), were more common in the Non-Surgical Group than in the Surgical Group. Patients in the Non-Surgical Group were less often treated with anticoagulants, either before IVCF implantation (64.2% vs 80.4%; p=0.02) and after its removal (58.0% vs 74.2%; p=0.03). Retrievable filters were more commonly placed in the Surgical Group (60.8% vs 34.6%; p=0.0008). Mortality rate during hospitalization was more frequent in the Non-surgical Group (21.0% vs 9.3% p=0.04).

Conclusions: Patients candidate for surgery who are implanted with a IVCF for a recent VTE are different from those who are implanted with a IVCF for non-surgical reasons. Prospective studies are needed to understand whether IVCF placement improves clinical outcomes in these categories of patients.

PV006 / #605

USE OF DRUGS IN A CLINICAL TRIAL OF TELEMONITORING OF CONSTANTS. ATLAN_TIC PROJECT

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Background and Aims: To analyze the use of drugs in patients with advanced heart and/or respiratory failure included in a clinical trial of telemonitoring of constants.

Methods: Multicenter clinical trial including patients with heart failure with NYHA \geq III and/or chronic respiratory failure with MRC \geq III and/or oxygen saturation <90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Secondary analysis of pharmacotherapy and its evolution due to the effect of telemonitoring. Statistical package SSPSv20. Approved by the Research Ethics Committee.

Results: 510 patients from 5 hospitals were included, 255 patients in each arm. Median age was 76,5 years, being 54.5% females. Cardiac inclusion criteria were presented for 321 patients (63.1%), respiratory 71 (13.9%) and 117 (22.9%) both criteria. The 67.6% had multimorbidity. Median score of the Charlson index of 2 points, PALIAR index of 0 points (predicting 21% mortality at 6 months) and PROFUND index of 6 points (predicting 20% mortality at one year). The most prescribed drugs were antihypertensives (98.6%), antiaggregants/anticoagulants (84.6%), bronchodilators (63.4%), hypolipemics (51.5%), psychotropics (51.5%), antidiabetics (50.1%), vitamin supplements/gastric protectors (35.1%), analgesics (34.8%) and immunosuppressants (4.6%), with no difference between both arms. During follow-up, some drug was withdrawn in 70.3% (medium of drugs 1,64 \pm 0,94) of the patients, added to 81.5% (1,67 \pm 1,08), and adjustments >50% of the initial dose were made at 82.6% (1,25 \pm 0,53). In the PAC arm were added more drugs (PAC 84,5 %, TELEPAC 78,4 %, p<0,05).

Conclusions: Polypharmacy was frequent in both arms. The use of telemonitoring was associated with less incorporation of medication.

PV007 / #618

EFFECTS ON QUALITY OF LIFE OF CONSTANT TELEMONITORING IN PATIENTS WITH ADVANCED HEART AND/OR RESPIRATORY FAILURE. ATLAN_TIC PROJECT

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Background and Aims: To analyze the effects on quality of life of constant telemonitoring in patients with advanced heart and/or respiratory failure included in a clinical trial of telemonitoring of constants.

Methods: Multicenter clinical trial including patients with heart failure with NYHA \geq III and/or chronic respiratory failure with MRC \geq III and/or oxygen saturation $<$ 90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Secondary analysis of quality of life through the health self-perception questionnaire and EuroQol.

Results: 510 patients from 5 hospitals were included, 255 patients in each arm. Median age was 76,5 years, being 54.5% females. Cardiac inclusion criteria were presented for 321 patients (63.1%), respiratory 71 (13.9%) and 117 (22.9%) both criteria. Median score of the Charlson index of 2 points, PALIAR index of 0 points (predicting 21% mortality at 6 months) and PROFUND index of 6 points (predicting 20% mortality at one year). Self-perception of health showed similar data at the beginning of the study (very good/good: PAC 40.7%, TELEPAC 34.6%; Regular/bad/very bad: PAC 59.3%, TELEPAC 65.4%, $p=0.159$). The TELEPAC arm showed improvement at 180 days (very good/good: PAC 35.8%, TELEPAC 57.6%; Regular/bad/very bad: PAC 64.2%, TELEPAC 42.5% $p < 0.05$). The Euroqol5D questionnaire showed a decrease in discomfort in both arms, reaching statistically significant differences in pain (PAC 72.1%, TELEPAC 47.5%, $p < 0.001$) and anxiety/depression (PAC 54.9%, TELEPAC 37.5%, $p < 0.001$), but not in mobility, personal care and daily activities. The Euroqol thermometer showed more increase in the TELEPAC arm (mean PAC of 56.38 ± 21.62 , TELEPAC 64.09 ± 19.91 , $p < 0.01$).

Conclusions: The use of telemonitoring produces an increase in quality of life of patients with advanced cardiac and/or respiratory failure.

PV008 / #647

EFFICACY OF CONSTANT TELEMORITORING IN PATIENTS WITH ADVANCED HEART AND/OR RESPIRATORY FAILURE. ATLAN_TIC PROJECT

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Background and Aims: To analyze the use of constant telemonitoring to decrease the requirements of hospitalization and/or emergency room visits in patients with advanced cardiac and/or pulmonary diseases.

Methods: Multicenter clinical trial including patients with heart failure with NYHA \geq III and/or chronic respiratory failure with MRC \geq III and/or oxygen saturation $<$ 90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and

TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Analysis of the percentage and average of: admissions, days of hospitalization, visits to the Emergency Room and consultations in Primary Care.

Results: 510 patients from 5 hospitals were included, 255 patients in each arm. Median age was 76,5 years, being 54.5% females. Cardiac inclusion criteria were presented for 321 patients (63.1%), respiratory 71 (13.9%) and 117 (22.9%) both criteria. The 67.6% had multimorbidity. Median score of the Charlson index of 2 points, PALIAR index of 0 points and PROFUND index of 6 points. Percentage and number of hospital admissions, number of days of hospital stay, admissions to hospital emergencies and visits to Primary Care Emergencies were lower in TELEPAC arm but without statistical differences. A reduction on emergency room admission in TELEPAC arm was found with statistical significance at 45 days of follow up (PAC 44,9 %, TELEPAC 33,8%, $p < 0,05$). Patients included after a hospitalization showed a decrease in care requirements at 45 days (PAC 50.5%, TELEPAC 34.9%, $p < 0.001$).

Conclusions: Telemonitoring of constants in advanced cardiac/respiratory failure decreases the hospitalizations and Emergency Room visits at 45 days globally and at 180 days in multimorbidity patients.

PV009 / #651

EVALUATION OF THE ASSISTANCE RECEIVED IN A CLINICAL TRIAL OF CONSTANT TELEMORITORING ATLAN_TIC PROJECT

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Background and Aims: To analyze the quality of the assistance received in a clinical trial of constant telemonitoring in patients with cardiac and/or respiratory advanced failure.

Methods: Multicenter clinical trial including patients with heart failure with NYHA \geq III and/or chronic respiratory failure with MRC \geq III and/or oxygen saturation $<$ 90% and/or oxygen therapy. Randomization in PAC Arm (optimal standard of clinical care) and TELEPAC Arm (addition of constant telemonitoring equipment) to evaluate the requirements of hospitalization and emergency visits. Follow-up of 180 days. Secondary analysis of the quality of the assistance received through the SERVPERF (satisfaction of the clinical assistance received) and TSUQ (satisfaction of the use of technological devices) questionnaires.

Results: 510 patients from 5 hospitals were included, 255 patients in each arm. Median age was 76,5 years, being 54.5% females. Cardiac inclusion criteria were presented for 321 patients (63.1%), respiratory 71 (13.9%) and 117 (22.9%) both criteria. The 67.6%

had multimorbidity. The SERVPERF questionnaire (maximum score 7 points) presented very high scores without significant differences at the 90-day visit (mean PAC 6.68±0.55, TELEPAC 6.69±0.69, $p < 0.01$); but with significant differences at the 180-day visit (PAC 6.62±0.81, TELEPAC 6.77±0.52, $p < 0.001$). The TSUQ questionnaire (maximum score 5 points) reached a score of 4.57±0.51 at 90 days and 4.68±0.59 at 180 days.

Conclusions: Perceived clinical care satisfaction was very high in the ATLANTIC project in both arms, although it tended to decrease during follow-up. Satisfaction with the use of technology was very high in the telemonitoring arm.

PV010 / #837

THE EROSIIVE GASTROESOPHAGEAL REFLUX DISEASE AS A PART OF THE MULTIMORBIDITY IN FEMALE

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Background and Aims: To analyze the incidence of erosive gastroesophageal reflux disease (GERD) in female outpatients aged 55 years and older who have been observed in an outpatient clinic.

Methods: Medical outpatients case reports forms of 76 female aged 57 to 92 (71.8±7.9) years have been analyzed during the period of 2019 year. Multimorbidity was defined as “the presence” of two or more chronic non-communicable diseases (NCDs) (National Institute for Health and Clinical Excellence, 2016). GERD was determined by an endoscopic examination according to the Los Angeles classification.

Results: Broncho-pulmonary diseases had 39% of outpatients; cardiovascular diseases were found in all outpatients (100%), other gastrointestinal disorders – in 87% of outpatients. Every second female outpatient (47%) was diagnosed with GERD, among which only 18% of them received specific therapy. The relationship of the GERD with multimorbidity ($r=0.25$, $p=0.028$) and with other gastrointestinal abnormalities ($r=0.29$, $p=0.011$) was established. The presence of GERD was associated with other gastrointestinal disorders (odds ratio, OR 10.2, 95% confidence interval, CI 1.2-85.4, $p=0.032$) and multimorbidity (OR 1.45, 95% CI 1.06-1.98, $p=0.019$).

Conclusions: Every second female outpatient had EGERD. Despite the high prevalence of GERD, only one out of five female outpatients received specific treatment. Multimorbidity leads to atypical clinical presentation and makes the diagnosis of erosive GERD challenging. Primary care physicians should take into account the contribution of GERD to the structure of multimorbidity in female outpatients aged 55 years and older. The authors declare that there is not conflict of interests.

PV011 / #1117

ACUTE OUTPATIENT CLINIC - AN ALTERNATIVE APPROACH TO ACUTE NON-CRITICAL ILLNESS

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Background and Aims: The creation of an Acute Outpatient Clinic allows the evaluation of patients with acute non-critical illness outside the emergency room setting, creating an alternative channel for access to hospital care for these patients. We characterize the population observed in such a clinic over a 9-month period.

Methods: This is a retrospective observational study in which we reviewed the clinical notes from all patients sent to our Acute Outpatient Clinic between January and September 2020.

Results: We had a total of 134 appointments. Most patients (84%) were sent to the clinic from the emergency department. The mean time lapse between discharge from the emergency room (ER) and the appointment was 12 days. Over a third of patients (38%) remained in observation in the ER for a period of 12-24h. The pathologies observed in the clinic were mostly Infectious diseases: Pneumonia (13%), Acute Pyelonephritis (9%) and Acute Complicated Cystitis (17%). In 64% of patients there was need for therapeutic adjustments and 14% of patients were referenced for further study in other clinics.

Conclusions: The creation of an Acute Outpatient Clinic proved a valuable asset at our hospital, especially regarding the orientation of acute non-critical patients who attend the ER. The number of patients who are readmitted in the ER or admitted to hospital as inpatients is relatively small and it would be interesting to further this study by comparing the population from the clinic with the general population to draw more concrete conclusions regarding ER readmissions and observation time.

PV011a / #1060

CANDID PERICARDITIS: A NOT SO INNOCENT DIAGNOSIS

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Case Description: 74 year-old male, history of esophageal malignancy and heart failure. Admitted with dyspnea, apyretic, hypotensive, tachycardic; 85% of saturation in room air and pulmonary crackles. Labs with leukocytosis, 84% neutrophils, troponin normal; lactic acidosis and hypoxemia. EKG revealed diffuse ST segment elevation. Suddenly cardiac arrest occurs in pulseless electrical activity with return of spontaneous circulation after 20 minutes. Summary echocardiogram revealed pericardial effusion (PE). Patient was admitted in intensive care.

Clinical Hypothesis: PE occurs secondary to inflammatory, infectious, malignant, autoimmune processes or idiopathic. Purulent pericarditis has become an uncommon condition; occurs mostly after trauma or in immunocompromised patients. Commonly caused by bacteria, *Candida pericarditis* (CP) is a rare entity.

Diagnostic Pathways: CT scan showed abundant PE and pneumopericardium. An echocardiogram revealed 5 cm of PE with pneumopericardium. Pericardiocentesis was performed with 700 cc of hematopurulent fluid drained, with 5640 red blood cells and 978 white blood cells (80% granulocytes, 12% lymphocytes), glucose 1 mg/dl, LDH 1754 U/L, ADA 21 U/L. HIV was negative. Broad-spectrum antibiotics were initiated. Anoxic encephalopathy was diagnosed and comfort measures were assumed. Microbiology revealed *Candida albicans* 5 days after death.

Conclusion and Discussion: This entity is almost uniformly fatal without timely treatment. Malignancy, specially esophageal, is associated in a high percentage with cardiac tamponade. Patient's retrosternal esophagus might be communicating with the pericardium or transmural translocation of microbes or previously healed perforation was thought to be a possible source of the infection. This case emphasizes that fungal origin should be considered in a purulent pericarditis.

PV011b / #103

THE OTHER FACE OF A CONVERSION DISORDER: A CHALLENGE TO EMERGENCY PHYSICIANS

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Background and Aims: Complete heart block (CHB) is considered as one of the most challenging rhythms since it can progress to a high risk of ventricular standstill and sudden cardiac death.

Methods: A 29-year-old female, obese and smoker, was admitted to our ER with an altered state of consciousness. The patient had a history of multiple visits to the ED for episodes of conversion disorder in the last year. Physical examination revealed a slightly pale and lethargic woman. She was afebrile with a blood pressure of 100/60 mmHg, bradycardic at 30 beats/min, and her respiratory rate was 15 breaths/min. ECG revealed a complete heart block (CHB), and a temporary pacemaker was implanted. She wasn't taking any negative chronotropic drugs and no electrolyte imbalance was detected.

Results: The blood test revealed troponinI elevation to 12ng/mL and the echocardiogram showed a hypokinesis of the basal segment of the posterior and inferior walls of the left ventricle with preservation of the systolic function. Cardiac catheterization didn't show significant epicardial coronary artery disease. Approximately 12 hours after admission she recovered sinus

rhythm. Cardiac MRI was performed to better clarify the clinical condition in which signs suggestive of recent inferior and lateral infarction were observed with edema, fibrosis and microvascular obstruction due to probable embolic etiology. Therapy with hypocoagulation was initiated.

Conclusions: We present a special case in a young patient who underwent an embolic MI of the inferior wall and transitory CHB, showing a possible complication during the AMI and the urge for a quick decision by the emergency physician.

PV011c / #859

A CASE REPORT OF TYPE A AORTIC DISSECTION WITH SYNCOPE AS INITIAL PRESENTATION

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Case Description: A 81-year-old woman, with a past medical history of hypertension, was admitted to the emergency room with transient loss of consciousness. At admission, she was afebrile, no tachypnea, no tachycardia, peripheral oxygen saturation of 95%, blood glucose 221 mg/dL. Gasglow coma score was 15 and the neurological exam was unremarkable. Blood pressure of 135/75 mmHg in right arm. She was found unconscious by her daughter at home when the patient last recall that was washing the dishes. She denied headaches, palpitations, dyspnoea and acute onset chest or back pain before the syncope. However she reported a chronic retrosternal and epigastric mild pain.

Clinical Hypothesis: Syncope has a wide differential diagnosis. The most important specially in the emergency room are: coronary ischemia, pulmonary embolism, heart failure, stroke, aortic dissection and acute abdominal illness.

Diagnostic Pathways: 12-lead electrocardiogram demonstrated normal sinus rhythm. Chest X-ray showed moderate mediastinal widening. Blood gas analysis revealed pO₂ 61mmHg and lactate 2,9 mmol/L. NTproBNP 297 pg/mL, troponin-I HS 192 pg/mL, D-dimer 1500 ng/mL. To exclude pulmonary embolism and dissection, a contrast thoracic CT was performed showing: "aortic dissection involving the aortic root, ascending aorta and right brachiocephalic trunk- Stanford A and DeBakey II- with larger false lumen. The ectasied ascending aorta artery with 6.2x5.8 cm. moderate hemopericardium with 16 mm close to the right cavities."

Conclusion and Discussion: Acute aortic dissection is not uncommon but remains a clinical challenge for emergency physicians, with ominous prognosis. The patient was transferred to the referencial with cardio-thoracic department underwent surgical correction of type A aortic dissection with replacement of the supracoronary descending aorta with preservation of the aortic valve.

PV012 / #1305

ONE-YEAR OUTCOME AND SURVIVAL ANALYSIS OF DEFERRED VENTRICULAR SEPTAL REPAIR WITH MECHANICAL CIRCULATORY SUPPORT AND CARADIOGENIC SHOCK

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Background and Aims: The effectiveness of deferred surgical repair of ventricular septal rupture (VSR) post-myocardial infarction (MI) with cardiogenic shock remains limited to case reports. Our study aimed to investigate the outcomes and survival analysis following mechanical circulatory support (MCS) in patients after VSR who develop cardiogenic shock.

Methods: We analyzed 27 patients with post-MI VSR and cardiogenic shock who received deferred surgical repair while stabilized on MCS between January 2018 and March 2020. After normality test adjustments, continuous variables were expressed as mean \pm standard deviation (SD). These were compared using the Mann-Whitney U test and Student's t-test. Categorical variables were compared using chi-square or Fisher's exact test. To identify predictors of operative mortality, univariate analysis of clinical characteristics and interventions followed by logistic regression was carried out. P-value of <0.05 was considered significant.

Results: All patients had preoperative MCS. Emergency repair was avoided in all the patients. The mean age of the participants was 64.96 with the majority being males (74.1%). On average, the mean time from MI to VSR repair was 18.85 days. Delayed revascularization was associated with increased mortality (OR 17.500, 95% CI 2.365-129.506, $p=0.005$). Other factors associated with increased mortality were ejection fraction (EF), three-vessel disease, Killip class, early surgery, and prolonged use of inotropes. The operative mortality was 11% with an overall mortality of 33.3%. The one-year survival rate was 66.7%.

Conclusions: The use of MCS in adjunct to a deferred surgical approach shows an improved survival outcome of patients with VSR complicated by cardiogenic shock. Further investigations are required regarding the optimal time for MCS and surgical repair.

PV013 / #1306

THYROID FUNCTION ANALYSIS IN COVID-19: A RETROSPECTIVE STUDY FROM A SINGLE CENTER

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Background and Aims: Coronavirus disease 2019 (COVID-19) is an on-going epidemic with a multitude of long-ranging effects on the physiological balance of the human body. It can cause several effects on thyroid functions as well. We aimed to assess the lasting sequelae of COVID-19 on thyroid hormone and the

clinical course of the disease as a result.

Methods: Out of 76 patients, 48 patients of COVID-19 positive and 28 patients of COVID-19 negative polymerase chain reaction (PCR) were assessed for thyroid functions, IL-6, and Procalcitonin between moderate, severe, and critical pneumonia.

Results: Seventy-five percent of patients with COVID-19 had thyroid abnormalities and higher IL-6 levels (76.10 ± 82.35 vs. 6.99 ± 3.99 , 95% CI 52.18-100.01, P-value <0.01). Logistic regression analysis suggested TT3 (P-value 0.01), IL-6 (P-value <0.01), and Procalcitonin (P-value 0.03) as independent risk factors for COVID-19. ROC curve demonstrated IL-6 as the most sensitive marker (P-value <0.01), and TT3, and Procalcitonin as the predictor for COVID-19 disease.

Conclusions: This pilot study from Pakistan demonstrates that changes in serum TSH and TT3 levels may be important manifestations of the courses of COVID-19 pneumonia.

PV014 / #1319

THE LEFT VENTRICULAR GLOBAL FUNCTION INDEX: OPTIMAL CUT-OFF FOR PREDICTING MORTALITY IN PATIENTS AGED 60 YEARS AND OLDER WITH HEART FAILURE

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Background and Aims: The Left Ventricular Global Function Index (LVGFI) is a marker that incorporates the functional and structural characteristics of the LV. LV remodeling and performance are best described by a combination of structural and functional parameters, and combining stroke volume, LV volume and LV mass in one index improves the predictive potential for adverse events. Aim. Assessment of the prognostic value of LVGFI in outpatients with chronic heart failure.

Methods: The study included 136 patients (53% male) aged 73 (67-77) years with HF II-IV NYHA FC, which were divided into 2 groups: the group of people 60-74 years old ($n=77$; 62% male), group 1, and of people aged 75 and older ($n=59$; 41% male), group 2. LVGFI was defined as LV stroke volume/LV global volume*100, where LV global volume was the sum of the LV mean cavity volume [(LV end-diastolic volume + LV end-systolic volume)/2] and myocardial volume (LV mass/density). The observation period was 36 (20; 40) months.

Results: The median LVGFI in the group 1 was 19.7 (interquartile range, IR, 16.6; 22.4)%, in the group 2 - 19.4 (IR, 16.2; 21.6)%. The optimal LVGFI cut-off for the prediction of an death with a sensitivity of 76.0% and a specificity of 76.1% in group 1 was 19.0% or lower (AUC 0.830 ± 0.049 , 95% CI 0.74-0.3, $p<0.001$), In group 2 - 19.0% (AUC 0.701 ± 0.085 , 95% CI 0.54-0.87, $p=0.041$) with a sensitivity of 63.6% and a specificity of 64.3%.

Conclusions: The optimal LVGFI cut-off for the prediction of an increase in mortality in both groups is $\leq 19.0\%$.

PV015 / #1473

HYPOESTHESIA IN LEGS: IS IT POSSIBLE TO DETECT IT BY SUBJECTIVE COMPLAINTS IN AMBULATORY PRACTICE?

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Background and Aims: Hypoesthesia (HE) primarily results from damage to nerves, and blockages in blood vessels, resulting in ischemic damage to tissues, however, patients may have no complaints. The objective was to evaluate what damages of nerves A β , A δ or C fibers should be diagnosed that person would express as a complaint.

Methods: 238 ambulatory patients were measured using the Neurometer[®] on both legs toes at different frequencies: 2000 Hz (A β conductivity), 250 Hz (A δ) and 5 Hz (C). 71 patients had normal current conductivity (HE0), 12 patients had a higher threshold at the C fiber level at least in one leg (HE1), 9 at C and A δ (HE2) and 25 at all three fibers levels (HE3). They filled The Michigan neuropathy screening instrument and Varicose Veins Symptoms Questionnaire, also self-reported having diabetes (47.9%) and varicose veins (31.5%). Fisher's exact test was used for statistical analysis.

Results: There was no significant difference comparing HE0 with HE1 and HE2. HE3 group had more common pruritus (0.37 vs 0.92; p=0.029), varicose veins (23% vs 56%; p=0.004), more sensitive feet to touch (25% vs 66,7%; p=0.002), more pain when bed covers touch skin (8% vs 33%; p=0.015) and worse symptoms at night (33% vs 61%; p=0.034) than HE0 group. There were no differences between patients with or without diabetes.

Conclusions: Study suggests that patients have subjective complaints when they have injuries in all three types of fibers, it is important to investigate it earlier.



AS02. CARDIOVASCULAR DISEASES

PV016 / #12

MECHANICAL THROMBECTOMY-ASSISTED THROMBOLYSIS FOR ACUTE SYMPTOMATIC PORTAL AND SUPERIOR MESENTERIC VENOUS THROMBOSIS. CASE REPORTS

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Background and Aims: Acute portal vein and mesenteric vein thrombosis (PVMVT) can cause acute mesenteric ischemia and be fatal with mortality rate of 37%–76%. We report two cases of symptomatic PVMVT treated successfully by transhepatic percutaneous mechanical thrombectomy-assisted thrombolysis.

Methods: *Case 1:* A 44-year-old female presented with a 10-day history of abdominal pain, which had gradually aggravated. An abdominal CT scan showed extensive thrombosis involving the portal vein and mesenteric veins. *Case 2:* A 35-year-old male presented with a 7-day history of epigastric pain. The abdominal CT scan showed extensive thrombosis involving the portal vein, superior mesenteric vein, and splenic vein.

Results: *Case 1:* Using an AngioJet Spiroflex thrombectomy catheter, were performed mechanical thrombectomy of the splenic vein and superior mesenteric vein, and then pulled the catheter back into the main portal vein. *Case 2:* A 6-F AngioJet Solvent Omni catheter was advanced over the guidewire and positioned in the distal superior mesenteric vein and splenic vein, and mechanical thrombectomy of the thrombosed segments of the splenic and superior mesenteric veins was performed.

Conclusions: In patients with symptomatic PVMVT without symptoms and signs of surgical abdomen, mechanical thrombectomy-assisted thrombolysis via an endovascular approach may be a safe and effective treatment option. This approach enables rapid debulking of the thrombus and facilitates rapid recanalization of mesenteric and portal venous flow, which results in prompt subsidence of symptoms and prevents unnecessary bowel resection. This approach can also reduce potential bleeding complications in compromised patient by decreasing the duration and amount of thrombolytic agent used.

PV017 / #13

PERCUTANEOUS THROMBECTOMY OF MURAL AORTIC THROMBUS. CASE REPORTS

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Background and Aims: Endovascular treatment of a mural aortic thrombus has been performed with placement of a stent graft in the thoracic aorta when occlusion of visceral or extremity vasculature is of no concern. Endovascular mechanical thrombectomy has been established as an alternative to open thrombectomy. I describe a technique used in two patients with symptomatic mural aortic thrombus involving percutaneous thrombectomy with mechanical thrombectomy catheter in conjunction with a continuous aspiration system and intravascular ultrasound (IVUS) guidance.

Methods: *Case 1:* A 56-year-old woman with a previous history of hypertension and stroke presented with recent-onset left-sided flank pain. Computed tomography (CT) scan of the chest, abdomen, and pelvis demonstrated focal mural aortic thrombus in the visceral segment of the aorta. *Case 2:* A 46-year-old man, with no significant medical history, presented with acute onset of right leg pain with some sensory deficits in his right foot but no motor deficits. CT angiography (CTA) was performed, showing a partially occlusive thrombus in the infrarenal abdominal aorta.

Results: *Case 1:* With only two or three passes, nearly all of the thrombus was removed, with no signs of embolic complication based on completion IVUS examination and completion aortoiliiofemoral angiography. *Case 2:* The angled mechanical thrombectomy catheter was then advanced over a Bentson wire through the left femoral artery sheath, and thrombectomy was performed under IVUS guidance.

Conclusions: Percutaneous thrombectomy using an angled continuous aspiration mechanical thrombectomy catheter under IVUS guidance provides a useful, minimally invasive treatment option in patients with challenging cases of mural aortic thrombus.

PV018 / #64

CARDIAC AMYLOIDOSIS AS A (UN)COMMON CAUSE OF HEART FAILURE

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Case Description: Transthyretin cardiac amyloidosis (ATTR-CA) is caused by deposition of misfolded insoluble beta-pleated sheets in the myocardial extracellular matrix. Thought to be a rare disease, ATTR-CA accounts for a significant number of preserved heart failure (HFpEF) cases in older. Its diagnosis may be challenging once clinical manifestations are often nonspecific. We present the case of a 81-year-old female with medical past history of HFpEF and hypertension. In the last year she presented four episodes of decompensation with no clear trigger. She was admitted with acute decompensated heart failure (HF) of unknown cause.

Methods: Not applicable.

Diagnostic Pathways: The transthoracic echocardiogram demonstrated preserved systolic function, severe biatrial enlargement and severely increased concentric left ventricular wall thickness. Cardiac magnetic resonance imaging was performed and also revealed diffuse myocardial late gadolinium enhancement without any evidence of perfusion defect, suggestive of infiltrative cardiomyopathy/CA. A complete work-up was then performed to distinguish different types of amyloidosis. An abdominal fat biopsy was done and the Congo red-stained biopsy samples did not demonstrate apple-green birefringence on polarized microscopy. Immunoelectrophoresis and light chains were negative in blood and urine. A ^{99m}Tc-pyrophosphate planar scintigraphy was subsequently done which was compatible with ATTR-CA (Perugini score 3). The patient was subsequently referred to our consultation to start tafamidis.

Conclusion and Discussion: ATTR-CA should be considered as one of the differentials in unexplained HF. It should be suspected in patients who present with restrictive cardiomyopathy, prominent signs of right/left-sided HF in the absence of ischemic disease. Prompt recognition, timely diagnosis and appropriate treatment are crucial for prognosis.

PV019 / #72

PROGNOSTIC IMPLICATION OF OPTIMAL HEART RATE FOLLOWING LVAD IMPLANTATION

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Background and Aims: Heart rate (HR) reduction therapy using ivabradine has demonstrated its prognostic implication in patients with heart failure with reduced ejection fraction. However, clinical implication of optimal HR in patients with left ventricular assist device (LVAD) remains unknown.

Methods: The cohort included all consecutive patients undergoing LVAD implantation between 2014 and 2018. The subjects who were not in sinus rhythm and/or whose follow up period was less than one year were excluded from the study. Ideal HR was calculated as follows: $96 - 0.13 \times (\text{deceleration time [msec]})$. The impact of "HR difference", defined as the difference of HR between the actual HR at discharge and the calculated ideal HR, on one-year mortality and heart failure readmissions was investigated.

Results: A total of 143 patients (55 years old, 101 males) were identified and stratified into three groups considering their HR differences: (1) optimal HR group (N=49; HR difference <27 bpm); (2) sub-optimal HR group (N=47; HR difference 27–42 bpm); (3) abnormal HR group; HR difference >43 bpm). There were no significant differences in the baseline characteristics and medications among the groups. Abnormal HR group had significantly higher one-year cumulative event rate compared with optimal HR group (38% vs. 16%, $p=0.029$) with a hazard ratio of 1.66 (95% confidence interval 1.09–2.51) adjusted for age, body surface area, ischemic etiology, and destination therapy.

Conclusions: Non-optimized HR negatively affected clinical outcomes in LVAD patients. Implication of aggressive HR optimization in LVAD patients is the next concern.

PV021 / #102

A RARE CASE OF A CONGENITAL HEART DISEASE

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Background and Aims: The quadricuspid aortic valve (QAV) is a rare congenital heart disease with an incidence of 0.01 to 0.04%, and the first known case was reported in 1862 by Balinton. Since then, the cases described in the literature are rare.

Methods: We present a case of a 45-year-old male diagnosed with a QAV, with the help of the TTE, during the follow-up of his myotonic dystrophy in neurology consultation. The patient was asymptomatic, denying any exertional shortness of breath, chest pain, palpitations, orthopnea, or paroxysmal nocturnal dyspnea. Cardiac auscultation revealed a diastolic murmur of grade 1/4 in the second right intercostal space.

Results: TTE was performed to evaluate this new diastolic murmur, which showed a normal left ventricular chamber size with an ejection fraction of 75%. The aortic valve showed mild aortic insufficiency with valve anatomy suspicious of QAV. Thus, a TEE was requested to better characterize and evaluate the aortic valve. It was verified a type II QAV (Nakamura et al. simplified

classification). Since the patient was asymptomatic, he was counseled regarding the condition and need for regular follow-up with the cardiologist.

Conclusions: Although QAV is a congenital malformation, the diagnosis is usually late. Early diagnosis of QAV is critical, as more than half of patients with QAV will require surgical intervention at some point in their life to treat their aortic regurgitation. Therefore, early diagnosis and follow-up are critical in these patients to replace the aortic valve before left ventricular decompensation.

PV022 / #105

LOOKING FOR GUILTY...

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Case Description: A 71-year-old man was referred to a cardiology consultation to study the etiology of his right heart failure.

Clinical Hypothesis: Chest CT revealed a pericardial thickening. Echocardiogram showed moderate dilation of the right cavities; abnormal movement of the interventricular septum; pericardial thickening; and dilated inferior vena cava with little respiratory variability. Constrictive pericarditis was the main diagnostic hypothesis and cardiac catheterization was requested. Hemodynamic results showed mild pulmonary hypertension with 35 mmHg sPAP and hemodynamic criteria for constrictive pericarditis (equalization of diastolic pressures (VE/VD/AD/PCW ~ 22 mmHg); RV pressure curves with “dip-and-plateau” contour, telediastolic pressure RV/RV systolic pressure >1/3, right atrial pressure plot with “M” curve, right and left ventricular pressure curves with respiratory variability (ventricular interdependence).

Diagnostic Pathways: The right heart failure clinic presented by the patient, the pericardial thickening objectified in the imaging exams, the findings on the echocardiogram and the hemodynamic results obtained in the cardiac catheterization allowed us to make the diagnosis of constrictive pericarditis, having been the patient proposed for pericardiectomy.

Conclusion and Discussion: In conclusion, constrictive pericarditis is a heterogeneous disease, increasingly important causes of which in the current era include radiation and cardiac surgery. Although pericardiectomy is often performed and the results are excellent in some patients, it may not offer a cure or good long-term results in advanced or post-radiation constrictive pericarditis.

PV023 / #106

A LARGE VENTRICULAR SEPTAL RUPTURE FOLLOWING MYOCARDIAL INFARCTION: A CRITICAL AND POTENTIALLY FATAL COMPLICATION

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Case Description: This clinical report described the case of a 78-year-old male patient with an infarction of the inferior myocardial wall and a post-MI ventricular septal rupture in the posterobasal segment.

Clinical Hypothesis: On admission, the cardiac auscultation revealed a harsh holosystolic murmur, heard throughout the precordium but loudest at the left sternal border, associated with a palpable thrill. ECG showed Q waves in the leads II, III, and aV_F. TTE revealed a dilated and dysfunction LV with akinesia of the inferior and posterior wall. There was also a large (14 mm), sharply demarcated ventricular septal rupture (VSR) at the level of the posterobasal septum, with a turbulent left-to-right transseptal flow.

Diagnostic Pathways: Given these findings, the patient underwent an urgent cardiac catheterization which showed a left main and three-vessels disease, with a total occlusion in the mid right coronary artery with collateral supply. An intra-aortic balloon pump was placed, and the patient was referred for urgent surgery. Interventricular communication was successfully confirmed and closed using a pericardial patch, excluding the infarcted area. A coronary artery bypass grafting was also performed.

Conclusion and Discussion: VSR has become a rare complication of acute MI in the era of primary percutaneous coronary intervention, but the prognosis remains guarded. Commonly, VSR develops within a few days after a transmural MI. Only surgical repair is the definitive treatment, being associated with high morbidity and mortality. This is a report of a successfully treated case, with an uncommon mechanical complication, which illustrates the decisive role of the echocardiography in the diagnosis and management of VSR.

PV024 / #139

DIETARY NITRATE PREVENTS PROGRESSION OF CAROTID SUBCLINICAL ATHEROSCLEROSIS IN PATIENTS WITH HYPERTENSION AND WITH OR AT RISK OF TYPE 2 DIABETES MELLITUS

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Background and Aims: Epidemiological and animal studies suggest that dietary nitrate may inhibit atherogenesis, and spironolactone may improve arterial stiffness. We tested if 6 months' intervention with dietary nitrate and spironolactone could affect carotid subclinical atherosclerosis and stiffness, respectively, versus placebo/doxazosin, to control for blood pressure (BP).

Methods: A subgroup of participants in our double-blind, randomized-controlled, factorial VaSera trial had carotid ultrasound (US). Patients with hypertension and with/at risk of type 2 diabetes were randomized to active nitrate-containing beetroot juice or placebo nitrate-depleted juice, and spironolactone or doxazosin. Carotid US for diameter (CD, mm) and intima-media thickness (CIMT, mm) was performed at baseline, at 3- and 6-months. Carotid local stiffness (CS, m/s) was estimated from aortic pulse pressure (Arteriograph®) and carotid lumen area. Data was analyzed by modified intention to treat and using mixed-model effect, adjusted for confounders.

Results: 93 subjects had a baseline carotid US and 86% had follow-up data. No statistical interactions occurred between the juice and drug arms. BP was similar between the juices and between the drugs. Nitrate-containing versus placebo juice significantly lowered CIMT [-0.06 (95% Confidence Interval -0.12, -0.01), $p=0.022$], an overall difference of ~8% relative to baseline; but had no effect on CD or CS. Doxazosin reduced CS from baseline [-0.30(-0.58, -0.02)], however, no difference was detected vs spironolactone [0.09(-0.33, 0.50)]. CIMT and CD did not differ between spironolactone or doxazosin.

Conclusions: 6 months' intervention with dietary nitrate influences vascular remodeling, but not carotid stiffness or diameter. Neither spironolactone nor doxazosin had a BP-independent effect on carotid structure and function.

PV025 / #141

DO WE NEED MORE VASCULAR IMAGING FOR THE SCREENING OF SECONDARY HYPERTENSION? MID-AORTIC SYNDROME IN A YOUNG MALE ADULT

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Background and Aims: Middle aortic or mid-aortic syndrome (MAS) is a rare variety of aortic coarctation, located in the distal thoracic aorta and/or proximal abdominal aorta, and it commonly involves renal and splanchnic branches. MAS is usually diagnosed in children and young adults with a typical set of signs and symptoms, usually dramatic (resistant hypertension with relative hypotension distal to the aortic stenosis, headache, early fatigue on exertion, bilateral lower limb claudication).

Methods: We report the case of a 21-year-old male who presented with mild-to-moderate hypertension, and whose screening for secondary causes and hypertension mediated organ damage (HMOD) resulted inconclusive. Tried on single and combined treatment, blood pressure (BP) control remained unsatisfactory. A magnetic resonance angiogram (MRA) was performed and revealed a significant stenosis of the upper abdominal aorta, as well as the coeliac axis, superior mesenteric artery and right renal artery. After treatment of the haemodynamically significant right renal artery stenosis with balloon angioplasty, satisfactory BP control was obtained on ACE-inhibitor alone.

Results: MAS can be found in adults who may not present with typical signs and symptoms of the condition and it should be considered in the diagnostic workout for secondary causes of hypertension.

Conclusions: Despite its rarity, MAS should be included in the screening for secondary causes of hypertension, especially in young adults with no clear family history of hypertension and who have a suboptimal response to the medical treatment. In experienced centers, a detailed study of the vasculature may be considered even in the absence of clear signs/symptoms related with MAS.

PV026 / #142

UNCERTAIN AETIOLOGY OF LEFT VENTRICULAR HYPERTROPHY IN A YOUNG SUBJECT WITH HYPERTENSION TREATED WITH DEXAMETAMPHETAMINE

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Background and Aims: Differential diagnosis between hypertensive heart disease and hypertrophic cardiomyopathy (HCM) associated with hypertension can be a challenge, since left ventricular hypertrophy (LVH) is a typical feature in both conditions.

Methods: Here we present a 28-year-old man with recent onset of grade I hypertension and on treatment with Dexamphetamine for narcolepsy, with a moderate-to-severe concentric LVH on echocardiography. A cardiac magnetic resonance confirmed LVH, with equivocal obliteration of the left ventricular mid cavity and diffuse microscopic fibrosis with no late gadolinium enhancement (LGE). HCM could not be completely ruled out, until Dexamphetamine was suspended and Amlodipine commenced,

with substantial regression of LVH and normalization of blood pressure after 6 months.

Results: In our case, the severity of LVH may have been interpreted as “not proportionate to the blood pressure values”. Also, cardiomyopathy is listed as an adverse effect of Dexamphetamine in the British National Formulary, as well as in the product literature. One case of hypertrophic pattern has been described in literature and involved a 51-year-old man with history of methamphetamine abuse. Although negative family history, septum thickness <2 cm, and absence of LGE favour the diagnosis of hypertensive cardiomyopathy, Dexamphetamine was discontinued and Amlodipine commenced simultaneously. Thus, a relationship between Dexamphetamine and LVH cannot be properly assessed.

Conclusions: In clinical practice, it is often difficult to differentiate hypertensive heart disease from HCM associated with hypertension. Multimodality approach, clinical management of blood pressure and follow-up imaging are essential for the characterization of LVH and its differential diagnosis.

PV027 / #162

PULMONARY ARTERIAL HYPERTENSION – A CLINICAL CHALLENGE

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Case Description: Pulmonary arterial hypertension (PAH) is a rare and life-threatening disease defined by chronically elevated pressure in the pulmonary arteries. In older patients, PAH is uncommon. We present a case of a 70-year-old female with medical past history of hypertension and atrial fibrillation. She was admitted with suspicion of de novo acute heart failure.

Methods: Not applicable.

Diagnostic Pathways: Laboratory test results unveiled serum creatinine/urea of 0.65 and 22 mg/dL, brain natriuretic peptide of 714 pg/mL and colestatic pattern (GGT/AP of 195 and 212 U/L, total bilirubin 3.62 mg/dL). The transthoracic echocardiogram demonstrated severe right atrial enlargement, dilated right ventricle with systolic dysfunction, severe tricuspid regurgitation with indirect signs of pulmonary hypertension - PH (PSAP of 84 mmHg) and a dilated inferior vena cava with inspiratory collapse <50%. Posteriorly, right heart catheterization was performed revealing a 5.5 UWood pulmonary vascular resistance of mixed etiology, predominantly characterized by pre-capillary PH. A complete work-up was then performed to exclude other causes comprised in each PH group. Autoimmune study and HIV were negative. High-resolution chest-CT, thoraco-abdominal-CT angiography and doppler abdominal ultrasound showed no relevant findings. Hence, PHA was assumed and the patient started sildenafil 12.5 mg twice daily and referred to our consultation.

Conclusion and Discussion: PAH should be considered as one of the differentials in PH. Over the past decades, PAH has evolved into a treatable disease associated with improved survival. Better clinical outcome hinges on lower clinical index of suspicion, understanding pathophysiology, and the importance of early aggressive therapy in newly diagnosed patients, as this entity could be fatal.

PV028 / #178

AORTA ANEURYSM: WHEN SEMIOLOGY AND IMAGE COMPLEMENT EACH OTHER

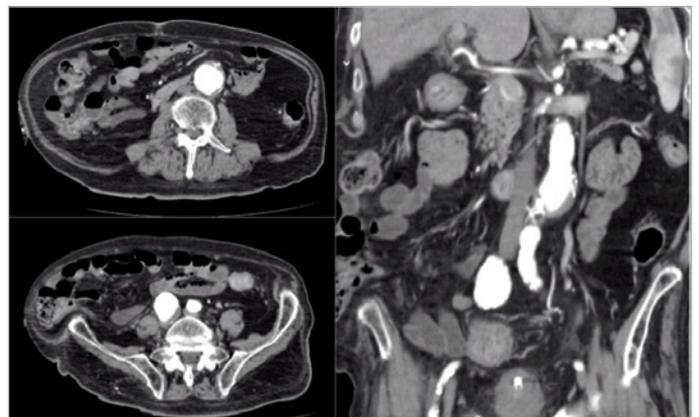
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Case Description: The aortic aneurysm corresponds to the dilatation of one of the aortic segments and is generally asymptomatic until its rupture. The images presented are of an 88-year-old man with a history of tetraparesis sequelae by cervical spondylotic myelopathy, hospitalized for a respiratory infection. The physical examination revealed a palpable and pulsatile left periumbilical abdominal mass of 3 cm. A computerized tomography of the abdomen and pelvis was performed, confirming an infrarenal abdominal aortic aneurysm extending to the bifurcation of the iliac arteries. These images are special because they clearly represent the imaging findings of this pathology.

Clinical Hypothesis: The differential diagnosis of a pulsatile abdominal mass is enormous, being the most immediate life-threatening disease, the abdominal aortic aneurysm. Other causes that can mimic this presentation are splenomegaly, hepatomegaly, pancreatic pseudocyst, and tumours that involve the aorta transmitting its pulsatility (ex. lymphoma, gastric cancer, pancreatic cancer, hepatocellular carcinoma, hepatic hemangioma, mesenteric lipoma).

Diagnostic Pathways: When the suspicion of an abdominal aortic aneurysm is raised, an imaging examination such as an abdominal ultrasound or CT scan should be performed to confirm the diagnosis.



#178 Figure

Conclusion and Discussion: Abdominal aortic aneurysms can be found during an examination for another reason or routine medical tests, such as an ultrasound. In this case, the detailed physical evaluation permitted the identification of a pulsatile mass, raising the suspicion of an abdominal aortic aneurysm, confirmed late through CT. Fortunately, this disease could be identified early in its course, being treated timely and preventing catastrophic events.

PV029 / #230

CORRELATION BETWEEN KLOTHO AND FGF23 PLASMA LEVELS AND THE INCIDENCE OF MAJOR VASCULAR EVENTS AFTER REVASCULARIZATION IN DIABETIC PATIENTS WITH CRITICAL LIMB ISCHEMIA

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Background and Aims: Peripheral artery disease (PAD) is a main cause of disability and mortality in diabetic patients. In addition to medical therapy, treatment of PAD complicated by critical lower limb ischemia (CLI) is based on endovascular revascularization (PTA). However, a substantial part of patients undergo a re-occlusion of the vascular lesion treated. Among the possible biomarkers candidates for early diagnosis and follow-up of diabetic patients with PAD and CLI, Klotho and fibroblast growth factor 23 (FGF23) represent a possible predictor. Aims: to analyze the relationship of Klotho and FGF23 levels in a population of diabetic patients with PAD and CLI, undergoing lower limb revascularization, and incidence of vascular complications during the follow-up period.

Methods: Plasma levels of Klotho and FGF23 were determined in 199 consecutive diabetic patients with PAD and consequent CLI at the time of the PTA. Patients were followed for a period of 1 year and any new vascular event were documented.

Results: Plasma values of Klotho were significantly lower in patients who experienced a major vascular event than in patients who had no complications ($p=0.021$). The incidence of early complication was associated with lower Klotho levels, compared to patients with late complication ($p=0.035$). When associated with plasma FGF23 values, Klotho levels were inversely associated with a worse outcome the higher the FGF23 levels measured ($p=0.001$).

Conclusions: The measurement of Klotho and FGF23 levels and the analysis of the Klotho / FGF23 ratio represent a new possible biomarker for risk stratification and early diagnosis of vascular complication in this patient population.

PV030 / #234

ASSOCIATION BETWEEN OMENTIN-1 AND MAJOR CARDIOVASCULAR EVENTS AFTER LOWER EXTREMITY ENDOVASCULAR REVASCULARIZATION IN DIABETIC PATIENTS: A PROSPECTIVE COHORT STUDY

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Background and Aims: Peripheral artery disease (PAD) represents a frequent T2DM vascular complication and a risk factor for the development of major adverse cardiovascular events (MACE). Among adipokines, Omentin-1 serum levels are reduced in T2DM patients with PAD and are inversely related to disease severity. Aim: To study the relationship between Omentin-1 levels, at baseline, with outcomes after endovascular procedures in T2DM patients with PAD and chronic limb-threatening ischemia (CLTI).

Methods: We enrolled for our prospective non-randomized study, 207 T2DM patients with PAD and CLTI, requiring revascularization. Omentin-1 serum levels were collected before revascularization and patients incidence outcomes were evaluated at 1, 3, 6 and 12 months.

Results: Omentin-1 was reduced in patients with more severe disease (27.24 ± 4.83 ng/mL vs 30.82 ± 5.48 ng/mL, $p < 0.001$). Overall, 84 MACE and 96 major adverse limb events (MALE) occurred during the 12-month follow-up. We observed that Omentin-1 levels were lower in patients with MACE (26.02 ± 4.05 ng/mL vs 31.33 ± 5.29 ng/mL, $p < 0.001$) and MALE (26.67 ± 4.21 ng/mL vs 31.34 ± 5.54 ng/mL, $p < 0.001$). The association between Omentin-1, MACE and MALE remained significant after adjusting for major risk factors in a multivariate analysis. Receiver operating characteristics (ROC) curve using Omentin-1 levels predicted incidence events (area under the curve = 0.80).

Conclusions: We demonstrated that reduced Omentin-1 levels, at baseline, are related with worse vascular outcomes in T2DM patients with PAD and CLTI undergoing an endovascular procedure.

PV031 / #235

SORTILIN LEVELS CORRELATE WITH MAJOR CARDIOVASCULAR EVENTS OF DIABETIC PATIENTS WITH PERIPHERAL ARTERY DISEASE FOLLOWING REVASCULARIZATION: A PROSPECTIVE STUDY

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Background and Aims: Peripheral artery disease (PAD) represents one of the most relevant vascular complications of type 2 diabetes mellitus (T2DM). Moreover, T2DM patients suffering from PAD have an increased risk of major adverse cardiovascular events (MACE) and major adverse limb events (MALE). Sortilin, a protein involved in apolipoproteins trafficking, is associated with lower limb PAD in T2DM patients. Aims: To evaluate the relationship between baseline level of Sortilin levels, MACE and MALE occurrence after revascularization of T2DM patients with PAD and chronic limb-threatening ischemia (CLTI).

Methods: We performed a prospective non-randomized study including 230 statin-free T2DM patients with PAD and CLTI. Sortilin serum levels were measured before the endovascular intervention and incident outcomes were assessed during a 12-month follow-up.

Results: Sortilin levels were significantly increased in individuals with more aggressive PAD (2.25 ± 0.51 ng/mL vs 1.44 ± 0.47 ng/mL, $p < 0.001$). During follow-up, 83 MACE and 116 MALE occurred. In patients, who then developed MACE and MALE, Sortilin was higher. In particular, 2.46 ± 0.53 ng/mL vs 1.55 ± 0.42 ng/mL, $p < 0.001$ for MACE and 2.10 ± 0.54 ng/mL vs 1.65 ± 0.65 ng/mL, $p < 0.001$ for MALE. After adjusting for traditional atherosclerosis risk factors, the association between Sortilin and vascular outcomes remained significant in a multivariate analysis. In our receiver operating characteristics (ROC) curve analysis using Sortilin levels the prediction of MACE incidence improved [area under the curve (AUC) = 0.94] and MALE (AUC = 0.72).

Conclusions: This study demonstrates that Sortilin correlates with incidence of MACE and MALE after endovascular revascularization in a diabetic population with PAD and CLTI.

PV032 / #241

ANALYSIS OF LEFT VENTRICULAR AREA STRAIN DURING 4D STRESS-ECHO WITH ADENOSINE TRIPHOSPHATE FOR DETECTION OF ISCHEMIA-ASSOCIATED CORONARY ARTERIES

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Background and Aims: Speckle tracking based myocardial deformation imaging can be effectively used for detection of zones of left ventricular (LV) myocardial ischemia during stress-Echo. In this study we aimed to compare the efficacy of detection of ischemia-associated coronary arteries in patients with coronary artery disease (CAD) by ATP 4D stress-Echo using traditional visual evaluation of LV segmental hypokinesis and Automatic Function Imaging technology LV AS analysis.

Methods: 25 patients with CAD (male 23, mean age 58.8 ± 5.8 years, single vessel obstructive disease 7, multi vessel - 18) underwent ATP LV 4D stress-Echo (Vivid E95). Rates of ischemia-associated coronary arteries detection by visual analysis of LV segmental contractility and by LV AS analysis were compared (LV 17 segmental model was used).

Results: In 12 (48.0%) patients expansion of preexisting hypokinetic areas and appearance of new LV segments with hypokinesis during stress test were detected by visual analysis. Expansion of initial areas of LV AS disturbances and appearance of new segments with deformation disturbances were found in 21 (84.0%) patients ($p = 0.015$).

Conclusions: Analysis of LV AS in CAD patients during 4D stress-Echo with ATP improves the efficacy of ischemia-associated coronary arteries detection.

PV033 / #243

ASSESSMENT OF DNA DAMAGE IN PATIENTS WITH CORONARY HEART DISEASE

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Background and Aims: Coronary heart disease (CHD) is one of the main reasons of morbidity and mortality in the world. Nowadays it is known that DNA damage can lead to development of some chronic diseases, including CHD. There is a lot of evidences of existence of DNA damage in patients with CHD, but the data about damage of DNA according to the type of CHD is still not enough. The purpose of this research is the assessment of DNA damage in patients with coronary heart disease, stratificated by the types.

Methods: 70 patients with CHD took part in the research (34 patients have acute myocardial infarction and 36 patients have unstable angina) and 20 clinical healthy people. Damage of DNA in lymphocytes of peripheral blood was researched with Comet assay method.

Results: Patients with CHD had reliably ($p < 0.001$) increased damage of DNA: T-DNA % 24.38 ± 0.50 against 6.12 ± 0.11 ; TM 88.54 ± 2.18 against 8.98 ± 0.71 ; DF 90.05 ± 0.84 against 42.12 ± 3.2 compared with the control group. Patients with MI had reliably more frequent damage of DNA than patients with unstable angina (T-DNA % 24.49 ± 0.21 against 22.01 ± 0.77 ; TM 102.31 ± 7.12 against 83.32 ± 6.12 ; DF 94.34 ± 0.88 against 90.12 ± 0.98 , DI 186.54 ± 5.87 against 168.54 ± 4.93).

Conclusions: Patients with CHD had higher indices of DNA damage in lymphocytes of peripheral blood compared with the control group. Reliable differences were also found out among the patients with CHD according to its type.

PV034 / #245

ACCELERATED HYPERTENSION WITH BILATERAL RENAL ARTERY STENOSIS

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Background and Aims: Atherosclerotic renal artery stenosis is the leading cause of secondary hypertension; it can also cause progressive renal insufficiency and cardiovascular complications such as recurrent heart failure and flash pulmonary edema. Renal artery stenosis can be treated by revascularization, using either percutaneous angioplasty (with or without stenting) or less common open surgical procedures, both with excellent primary patency rates.

Methods: We report a 61 year-old black man, with history of hypertension already with chronic kidney disease grade 3, hypertensive heart disease, along with cerebrovascular disease. He presented to the emergency room with acute hypertensive cardiogenic pulmonary edema, and maintained class III hypertension at the internal medicine ward, despite adequate therapy with 5 different classes of hypertensive drugs. Blood analysis showed progressive decline of renal function, elevated active renin (>500 uUi/mL) and reduced angiotensin-converting enzyme. Renal CT angiography revealed pre-occlusive stenosis in the proximal region of both renal arteries.

Results: The patient underwent percutaneous renal angioplasty with bilateral stent placement. There was a progressive decrease in blood pressure allowing tapering of antihypertensive drugs and improvement in renal function back to his basal levels.

Conclusions: In patients with severe hypertension, pulmonary edema and acute worsening of renal function, revascularization in addition to medical therapy is advised, as the prognosis of

patients with atherosclerotic renal artery stenosis is determined by cardiovascular and renal complications.

PV035 / #250

A RARE CASE OF AN ASCENDING AORTA AND AORTIC ARCH ANEURYSM WITH AN ABERRANT RIGHT COMMON CAROTID ARTERY AND A PROXIMAL DESCENDING AORTIC ECTASIA

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Background and Aims: Ascending aortic aneurysms are asymptomatic and are usually discovered as an incidental finding on chest imaging. However, larger aneurysms can present with symptoms resulting from compression of surrounding structures which can result in hoarseness, cough chest pain or back pain. The presence of an aortic arch anomaly, specifically an aberrant right common carotid artery, in a background of an aortic arch aneurysm is extremely rare with a worldwide incidence of $<1\%$. They are usually asymptomatic but can result to catastrophic life-threatening events and pose significant challenges to surgical or endovascular treatment.

Methods: This is a case of a 63-year old Filipino male who presented with a sudden onset of dull back pain radiating to the left anterior chest. Workup revealed an ascending and aortic arch aneurysm with an aberrant right common carotid artery arising directly from the transverse aorta.

Results: Surgical aortic arch debranching was done to repair the aberrant vessels prior to Thoracic Endovascular Aortic Repair (TEVAR) wherein a custom-made Thoracic Valiant graft was deployed on the aneurysm. The patient was discharged on the 4th day after TEVAR without any complaints of dyspnea, back pain nor chest pain with no neurologic and visceral organ dysfunction.

Conclusions: This case has emphasized that knowledge on the anatomy of the aortic arch is imperative in planning out thoracic surgery and endovascular interventions especially on rare anatomic anomalies such as seen in this case.

PV039 / #316

CARDIAC AMYLOIDOSIS SECONDARY TO PULMONARY TUBERCULOSIS.

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Background and Aims: Cardiac amyloidosis is a rare clinical entity and almost unknown. It shows as a restrictive cardiomyopathy, since it is an infiltrative disease caused by the extracellular

deposition of amyloids in the cardiac wall. Although it may be systemic, the heart condition determines its poor prognosis.

Methods: 46-year-old male admitted in ER for progressive dyspnea, oligoanuria and edema, with a history of pulmonary tuberculosis in 2010, suspecting heart failure. Finding normochromic normocytic anemia (Hb 11.0 g/dl), acute renal failure (plasmatic creatinine 8.52 mg/dl), lung nodule in lingula in chest X-ray, and atrophic kidneys with loss of corticomedullary differentiation in abdominal ultrasound. Echocardiogram has made with severe left ventricular hypertrophy and double moderate aortic lesion, and cardiac MRI with concentric hypertrophy of the left ventricle with hyperkinetic systolic function, late enhancement of non-ischemic distribution with diffuse subendocardial involvement as well as patched mesocardial involvement. Biopsy of the pulmonary nodule and abdominal fat were realized with Congo red staining with amyloid deposits in vascular structures.

Results: Amyloidosis is a systemic disease characterized by extracellular deposit of fibrillar proteins with laminar structure in folded beta arrangement. The most important types are primary amyloidosis (AL, immunoglobulin light chain fragments) and secondary amyloidosis (AA, protein A fibrils). Renal involvement is very common. In our environment most frequent cause of secondary amyloidosis is chronic pulmonary tuberculosis.

Conclusions: For AL amyloidosis, treatment is the same as for multiple myeloma, since the origin of both conditions is in the abnormal plasma cells.

PV040 / #318

ARTERIAL CALCIFICATION IN END STAGE RENAL DISEASE

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Case Description: A 61-year-old man with type 2 diabetes, end-stage renal disease undergoing hemodialysis, chronic heart failure and severe peripheral artery disease with bilateral lower limb amputation, presented with painful necrosis on the 5th finger of the left hand, associated with a rise in CRP levels.

Clinical Hypothesis: Infection in Limb Ischemia.

Diagnostic Pathways: Hand radiographs showed no evidence of osteomyelitis but showed an exuberant image of calcified arteries up from radial and ulnar to the proper digital arteries. Empiric antibiotic was started and the patient was proposed for elective surgery. The patient evolved favorably.

Conclusion and Discussion: Imaging techniques have brought attention to the burden of vascular calcification in patients with chronic kidney disease. Cardiovascular complications are the leading cause of death in patients with chronic kidney disease. However, there is no proof targeting vascular calcifications changes the clinical outcome of these patients.



#318 Figure

PV042 / #325

FEVER AND CHEST PAIN DURING COVID-19 PANDEMICS - AN OBVIOUS DIAGNOSIS OR A DIVE INTO SHALLOW WATERS?

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Background and Aims: We present the case of a 51 y.o. male, with cardiovascular risk factors, who presented for fever and atypical chest pain, ongoing for the last three weeks. The patient recalls other similar episodes of chest pain, in the absence of fever, in the past two years. The first one was interpreted as an acute coronary syndrome (ACS) with normal epicardial coronary arteries.

Methods: The clinical examination was unremarkable. Common laboratory tests and paraclinic investigations were performed in order to reveal the site of infection. Thorough cardiologic evaluation included electrocardiogram (ECG), echocardiography and cardiac magnetic resonance (CMR).

Results: No evidence of respiratory, digestive or urinary infection was found but common inflammatory markers were elevated. The ECG showed progressive changes of the T wave, with inversion in the antero-lateral and inferior leads. Echocardiography revealed normal regional and global wall motion, with a circumferential pericardic echo-free space resembling a "halo". The suspicion of acute pericarditis was confirmed by CMR which revealed a thick pericardium with acute inflammation criteria such as oedema and late gadolinium enhancement (LGE). No LGE suggestive of ischemic or miocarditic events were identified. A closer analysis

of the medical history dismissed the previous diagnosis of ACS and identified clinical and ECG findings suggestive of recurrent pericarditis. Under anti-inflammatory treatment with ibuprofen and gastroprotection the evolution was favorable.

Conclusions: We presented a case of acute pericarditis, possibly recurrent, and consider of utmost importance the identification of the aetiology, in order to select the adequate treatment and prevent further events which could lead to complications.

PV043 / #332

THE EFFECT OF ADMISSION BLOOD GLUCOSE LEVELS ON THE ONE YEAR MAJOR CARDIOVASCULAR OUTCOMES IN NON-DIABETIC PATIENTS WITH NON-ST-ELEVATION MYOCARDIAL INFARCTION UNDERGOING PERCUTANEOUS CORONARY INTERVENTION

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Background and Aims: To investigate the effect of admission blood glucose (ABG) levels on long-term cardiovascular outcomes in non-diabetic patients with non-ST-elevation myocardial infarction (NSTEMI) undergoing percutaneous coronary intervention.

Methods: 232 patients with NSTEMI undergoing coronary angiography and percutaneous coronary intervention our hospital between January 2015 and December 2018 were enrolled. The primary endpoint of the study was major adverse cardiac and cerebrovascular events (MACCEs), defined as composite of all-cause death, any MI, any revascularisation, and any stroke during the follow-up period according to the Academic Research Consortium-2 consensus. The patients were divided into two groups as those suffering [MACCEs (+)] and not suffering MACCEs [MACCEs (-)].

Results: During follow up, one-year mortality and MACCEs were observed in 20 (8.6%) and 41 (17.7%) patients, respectively. Patients with MACCEs were older than without MACCEs (62.7±13.1 vs 56.6±11.2). Older age, high Killip class, high Grace risk score, decreased estimated glomerular filtration rate (eGFR), decreased left ventricular ejection fraction (LVEF), high ABG, and high anatomical syntax score were found to be associated with one-year MACCEs (p <0.05). Analysis revealed that ABG, eGFR and syntax score were observed to be independent predictors of one-year MACCEs. Furthermore, we observed that ABG >140 mg/dL had 46% sensitivity and 88% specificity for the prediction of MACCEs. ABG >140 mg/dL had significantly higher MACCEs than the others (p <0.01).

Conclusions: ABG >140 mg/dL was found a major cardiovascular risk factor after diagnosis of NSTEMI in nondiabetic patients.

These data emphasizes importance of regular blood sugar monitoring in those patients with ABG >140 mg/dl after the diagnosis of NSTEMI.

PV044 / #349

ALBUMINURIA IN A COHORT OF PATIENTS WITH ACUTE CORONARY SYNDROME. ¿NEW CARDIOVASCULAR RISK FACTOR?

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Background and Aims: In recent years, albuminuria as CVRF has been discussed. The aim of our study was to analyze the distribution of a series of CVRF, including albuminuria, after ACS in a series of patients admitted to the ICU of the Hospital de Jerez.

Methods: Descriptive-cross-sectional study with analytical intention. Study population: All patients with ACS admitted to the ICU during a 60-day period. Variables collected: age, sex, smoking, diabetes, hypertension, dyslipidemia, obesity, home treatment and analytical data (markers cardiac and renal function), electrocardiographic and coronary angiography.

Results: N: 41-patients. Men: 68%. Age: 64.63±11.68 (41.93). HT in 65.9%, 85% undergoing treatment with ACEI/AAR-II. DM-2 in 36.6% and 14.6% had previous ischemic disease. Renal function: urea/creatinine index: 46/1.02 and GFR: 77.2 ml/h. The albumin/creatinine ratio was analyzed according to the severity range: 63.4% -mild, 14.6% - moderate and 2.4% - severe. The albumin/creatinine index was higher in older patients and male-sex (r=0.369; p=0.035) and in hypertensive patients (r=0.444; p=0.010) and in those with a history of previous ischemic disease (r=0.470; p=0.005). Diabetics predominated in the group albumin/creatinine index of mild range, while pre-diabetics predominated in isolation in the range of values within the severity.

Conclusions: When analyzing albuminuria, we see that older age, males and hypertensive patients have a higher alb/creat index, and it is also higher in those with previous ischemic disease. While diabetics have ranges of mild albuminuria, prediabetics have alb/creat values in the severe range. Albuminuria could become a new CVRF or help to enhance these "classic" CVRFs to try to carry out a more comprehensive management of the patient.

PV045 / #385

AN ATYPICAL PRESENTATION OF HYPERKALAEMIA RESULTING IN COMPLETE HEART BLOCK

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Background and Aims: Potassium is an extracellular ion, playing a key role in the electrophysiological function of the myocardium, any change in extracellular concentration can affect myocyte electrophysiologic gain. Hyperkalaemia can lead to slowing of conduction, low p waves, long PR intervals and wide QRS complexes. If left untreated, it can cause malignant ventricular arrhythmias and asystole.

Methods: We discuss the case of an 83 year old man presenting with severe hyperkalaemia (11.5 mmol/L).

Results: We discuss the case of an 83 year-old man presenting with severe hyperkalaemia (11.5 mmol/L). His background history included hypertension, ischemic heart disease and dementia. He presenting complaint was drowsiness and vomiting. His vitals taken by the ambulance crew were stable (HR 140, BP 168/88). When he arrived to the ED, he became unstable HR 35 BP 65/35. ECG showed complete heart block. The emergency hyperkalaemia protocol was administered twice (calcium gluconate, salbutamol nebulizers, IV insulin). He was transferred to the coronary care unit. He responded well to conservative management of his complete heart block, with subsequent electrocardiograms showing sinus rhythm. He was on no medication which would have predisposed to hyperkalaemia. He had no background of chronic kidney disease and ultrasound kidney revealed no obstruction or hydronephrosis.

Conclusions: While hyperkalaemia is a common clinical finding, the magnitude in this case is an unusual finding in especially in the absence of urinary obstruction or chronic kidney disease. While complete AV block can occur with hyperkalaemia, it is a rare initial presentation. The patient was managed conservatively and reverted to sinus rhythm.

PV047 / #411

ATRIAL FIBRILLATION RELAPSE PREVENTION AFTER ELECTRICAL CARDIOVERSION IN HIGH-RISK PATIENTS – COMPARISON OF CLASS IC AND CLASS III ANTIARRHYTHMIC MEDICATIONS

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Background and Aims: Electrical cardioversion (ECV) is followed by challenging atrial fibrillation (AF) recurrence prevention. Higher

CHA2DS2-VASc values are linked to modest success, attributed to arrhythmia-facilitating factor combination. Antiarrhythmic drugs (AADs) promote better outcomes, nevertheless, medication comparison demonstrates inconclusive real-world data. Study aim was to compare class IC and class III antiarrhythmic medication effectiveness for AF relapse prevention after ECV in high-risk patients.

Methods: Patients with high-risk AF (defined by CHA2DS2-VASc 2 or higher for men and 3 or higher for women, according to ESC Guidelines) after successful ECV were included. Risk-profile-appropriate AAD prescription was required – class IC and beta-blocker (to decrease proarrhythmia risk) or class III. After enrollment, 1-, 3-, 6-, 9-, 12-month follow-up interviews were conducted. Data analysis was performed using MS Excel and SPSS Statistics software.

Results: Among 113 patients, class IC AADs were used by 34.5%, class III – by 65.5%. Among class IC users, 51.3% did not experience AF recurrence (median arrhythmia-free period 52 (IQR 2-52) weeks), among patients taking class III AADs, sinus rhythm maintenance rate comprised 51.4% (median arrhythmia-free period 52 (IQR 7.5-52) weeks), without statistical significance comparing groups ($p=0.994$). Among class IC users, 74.4% were taking ethacizine, whereas in class III group, 86.5% used amiodarone, indicating results mostly attributable to these drugs.

Conclusions: Class IC and class III AADs, with ethacizine and amiodarone in forefront, demonstrated equal effectiveness for post-cardioversion AF relapse prevention. Results highlight equivalent medication substitution, if no contraindications, especially considering ethacizine as reasonable alternative to amiodarone, with adverse health effects and no convincing superiority.

PV048 / #466

PERICARDITIS IN AN INTERNAL MEDICINE DEPARTMENT

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Background and Aims: The objective of our study is to determine the clinical, para-clinical and etiological features of pericarditis in an internal medicine department.

Methods: A retrospective and descriptive study of patients with pericarditis.

Results: The study included 20 women and 7 men, the average age was 56 years old [21-82]. The circumstances of discovery were: dyspnea (17 cases), chest pain (10 cases), pericardial rubbing (5 cases), fever (3 cases) and tamponade in 1 case. The ECG revealed microvoltage (7 cases), sinus tachycardia (12 cases), repolarization anomalies (10 cases) and arrhythmias in 3 cases. The chest x-ray showed cardiomegaly in 74% of cases and pleural effusion in 37% of cases. It was normal in 3 cases. Echocardiography was performed in all of our patients. Pericardial effusion was moderate in 60% of

patients and discreet in 33% of cases. Signs of compression of the right cavities were noted in 2 cases, while signs of right ventricular dysfunction were found in a single patient. The sign of Swinging Heart was observed in 1 case. Anatomic-pathological examination of the pericardial tissue performed in 6 patients, confirmed a neoplastic origin in 2 patients and only showed non-specific inflammation in the 4 others. A pericardectomy concluded with tuberculosis in a patient. Systemic lupus erythematosus was the main cause of pericardial involvement, (6 cases). In the other hand, viral pericarditis and pericarditis due to tuberculosis occupy the 2nd and 3rd rank respectively. The short-term outcome was favorable in 78% of patients.

Conclusions: The etiological investigation through patient history and physical exam remains an important step in the exploration of pericarditis. Its management must be early and appropriate in order to prevent the chronic progression to constrictive pericarditis.

PV049 / #524

ACUTE ISCHEMIC STROKE ASSOCIATED WITH MULTIPLE ARTERIAL THROMBOSIS IN A PATIENT WITH ACETABULAR FRACTURE AND A PATENT OVAL FORAMEN – A CASE REPORT

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Background and Aims: Patients with hip fractures are at high risk of thromboembolism. Additionally, patent foramen ovale (PFO) causes paradoxical embolism, and genetic studies have identified many variants associated with thromboembolism. We report a case of a patient presenting with acute ischemic stroke and multiple arterial thrombosis 30 days after acetabular fracture.

Methods: Case description.

Results: A 31-year-old male patient, no comorbidities, with a history of right acetabular fracture was referred to the Emergency Department after 30 days of conservative treatment due to right hemiparesis and dysphasia and a diagnosis of acute ischemic stroke. Diagnostic imaging indicated multiple arterial thrombi in the middle cerebral artery, internal carotid and left brachial arteries, thoracic aorta, and pulmonary arteries, and the presence of PFO (0.3 mm) with a right-to-left shunt. All markers and mutations investigated for thrombophilia were negative, including homocysteine serum levels, except for a C677T mutation in the methylenetetrahydrofolate reductase gene (MTHFR), for which the patient was heterozygous. The patient underwent

full anticoagulation treatment with enoxaparin for 54 days and received warfarin in adjusted doses until the International Normalized Ratio (INR) levels reached the recommended therapeutic range (2-3). He was discharged from the hospital with full recovery from hemiparesis and dysphasia and continuous use of warfarin, remaining clinically stable until now.

Conclusions: The present report shows a rare case of multiple thrombosis in several vessels, including a critical pulmonary embolism in a patient with PFO, who developed acute ischemic stroke 30 days after trauma, demonstrating the importance of monitoring and vascular investigation in patients who suffer fractures.

PV050 / #525

FEATURES OF THE VASCULAR WALL STIFFNESS AND IMMUNE RESPONSE IN WORKERS EXPOSED TO INDUSTRIAL AEROSOLS

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Background and Aims: Vascular wall stiffness is considered an independent cardiovascular risk factor. It is important to study the mechanism of increasing arterial rigidity. The aim of the study was to identify the relationship between immune parameters and vascular wall stiffness in workers exposed to industrial aerosols.

Methods: The study included 55 men exposed to industrial aerosols and 32 men who had no professional contact with industrial pollutants. Cardio-ankle vascular index (CAVI) was determined by volumetric sphygmography. Serum concentrations of immunoglobulins (Ig), interleukins (IL), tumor necrosis factor (TNF)- α , and C-reactive protein (CRP) were determined by solid-phase enzyme immunoassay.

Results: Increased vascular wall rigidity was significantly more common in the group exposed to industrial aerosols. So, in this group, CAVI exceeded the norm in 33.3%, while in the comparison group in 11.4%. The mean CAVI values on the right and left in the main group were significantly increased compared with the other group. Also, elevated levels of IL-8, IgG and CRP as well as decreased IL-4 concentrations were found in men exposed to industrial aerosols. A positive correlation was found between CAVI and concentrations of TNF- α ($r=0.61$; $P=0.009$) and CRP ($r=0.54$; $P=0.02$), as well as an inverse relationship with the level of anti-inflammatory IL-10 ($r=-0.36$; $P=0.04$).

Conclusions: Higher vascular wall stiffness in workers exposed to industrial aerosols may be due to systemic inflammation. The established correlations between the concentrations of CRP, TNF- α , IL-10 and CAVI indicate the role of cytokines and acute phase proteins in the violation of the elastic properties of the vascular wall.

PV053 / #543

ENTEROBACTER CLOACAE, AN UNUSUAL ETIOLOGY OF INFECTIVE ENDOCARDITIS: A CASE REPORT

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Background and Aims: Infective endocarditis (IE) remains a clinical condition with a high mortality. This infection occurs most frequently in patients with valvular or structural cardiac pathology, and is generally caused by gram-positive bacteria. Gram negative microorganism (HACEK and non-HACEK) are a rare etiology.

Methods: Not applicable.

Case Description: A 36 years old female patient, with previous follow-up in cardiology consultation by suspicion of supravalvular aortic stenosis, was referred to emergency due to structural changes detected on transthoracic echocardiogram. The patient reported worsening of dyspnea and denied fever. The clinical examination revealed hemodynamic stability and an audible grade III/VI systolic murmur throughout the precordium. A transesophageal echocardiography was done and showed a bicuspid aortic valve, with thickening of the cusps and filamentous structure in the aortic aspect of the right coronary cusp. The patient was hospitalized. In admission, despite asymptomatic, she had fever. A diagnosis of IE was assumed and empirical antibiotic therapy was started. On the 7th day of treatment, *Enterobacter cloacae* sp dissolvens was isolated from blood cultures and antibiotics were adjusted. Subsequently, surgery was performed without complications. The patient had a good clinical evolution and was discharged free of symptoms.

Discussion: Infective endocarditis by *Enterobacter* is a rare condition and when it happens it is usually associated to healthcare contact, presence of prosthetic valves or other endovascular devices. In this case, none of these risk factors were present. In addition to being rare, this etiology is also associated with a worse prognosis, so an early diagnosis and treatment is crucial.

PV054 / #552

WATCH YOUR STEP

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Background and Aims: Pulmonary Embolism is a potentially life-threatening condition that is often masked by findings suggestive of other diseases. Mobile right-sided masses may embolize and cause massive PE.

Methods: Case Report / Medical Image.

Results: 67 male with history of hypertension and smoking. He presented to the emergency room with chest pain, dizziness and diaphoresis that started 1h before. He was awake with normal awareness. BP98/56 mmHg; HR87/min; SpO2 90%; T36.2°C. Both cardiac and pulmonary auscultation were unremarkable. ECG revealed a previously unknown RBBB. Biochemical tests revealed increased myocardial necrosis markers. Due to the possibility of acute coronary syndrome, we performed a transthoracic echocardiogram that demonstrated dilated right-sided cavities and signs of right ventricle overload. As we observe on the left-hand side of the image (subcostal window), we also identified a big mobile mass on the right atrium, consistent with a thrombus. As the patient was being transported to perform angioCT, he complained of sudden worsening of dyspnea. On the right-hand side of the picture, we can see both right and left main pulmonary arteries with evidence of contrast filling defect, suggesting the presence of central pulmonary thromboembolism. The patient was transferred to our ICU and started thrombolytic therapy with alteplase, followed by parenteral anticoagulation. The patient had an excellent clinical response. 12 hours after thrombolysis, the echocardiogram was near normal, with normal sized right cavities, with no evidence of thrombus.

Conclusions: Besides indirect signs of PE, the echocardiogram may provide direct view thrombi. Prompt identification of PE is crucial for successful treatment of this condition.



#552 Figure

PV056 / #590

THE RESULTS OF A 5 -10 YEAR FOLLOW-UP IN PATIENTS HOSPITALISED BY PULMONARY EMBOLISM

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Background and Aims: This retrospective study is based on the data collected between the years of 2009-2014, regarding patients hospitalized in a Lisbon's district hospital, with the diagnosis of pulmonary embolism (PE), associated risk factors (RF) and follow-up results. We present the results after a long term follow-up (5-10 years), regarding disease recurrence, pulmonary hypertension (PT) and cancer development and approach if it should be offered limited or intensive screening for possible cancer in PE patients.

Methods: Population study: 42 patients with PE diagnosis between the years of 2009 to 2014. Associated RF: age >75 years, cancer, prolonged immobility, recent surgery, obesity, pregnancy, contraceptive use, tobacco use, history of deep vein thrombosis, PE and thrombophilia. After 5-10 years, we searched for hospitalizations by PE, development of cancer, PT and death.

Results: After 5-10 years follow-up: - 12 died (11 due to natural causes and 1 of unknown cause); - 2 developed cancer; - 0 were readmitted in hospital with PE diagnosis; - 0 developed pulmonary hypertension.

Conclusions: Even though the population sample is not statistically significant, 3 patients had cancer at the time of PE diagnosis and this RF was not associated with further recurrence or readmission due to PE on a long term follow-up. In this period 2 other patients were diagnosed with cancer. These 5 cases, represent 12% of the study population. As it is, the authors believe that limited or intensive screening for possible cancer in PE patients, should be a tailor-made decision, based on the patient's age, medical history and other clinical findings.

PV059 / #631

MYOCARDIAL INFARCTION WITH NON-OBSTRUCTIVE CORONARY ARTERIES - CHALLENGE IN MODERN CARDIOLOGY - CASE REPORT

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Case Description: This case is based on myocardial infarction with non-obstructive coronary arteries (MINOCA), a condition that is clinically supported by the universal criteria for acute myocardial infarction with significant stenosis of coronary arteries (no lesion $\geq 50\%$). Aim is to present diagnostic and therapeutic modality of MINOCA. A 37-year-old female presents with chest pain which started within an hour, propagating to the left arm. Patient was

admitted with a clinical diagnosis of acute myocardial infarction and has been verified with MINOCA. In anamnestic data, there was no history of arterial hypertension, diabetes mellitus or hyperlipidemia. Electrocardiogram (ECG) on admission verified ST segment elevation up to 2 mm from V1 to V4 and biphasic T wave in lead III. High-sensitivity troponin T level on admission was 318 ng/L. Coronarography is indicated, which verifies non-obstructive coronary arteries, without significant stenosis.

Clinical Hypothesis: Vasospasm is considered to be the cause of MINOCA.

Diagnostic Pathways: Intracoronary acetylcholine provocation was positive. Echocardiography verified hypokinesis of apex and medioapical part of the septum of left ventricle. Ejection fraction of the left ventricle was 47%. Mild mitral regurgitation was detected. The patient was discharged with acetylsalicylic acid 100 mg once a day (OD), diltiazem 60 mg twice a day and rosuvastatin 10 mg OD in therapy.

Conclusion and Discussion: MINOCA represents a challenge in the daily work of the cardiologist. One of the common causes of MINOCA is coronary vasospasm, and the gold standard for diagnosing coronary spasm is the administration of high-dose intracoronary acetylcholine boluses.

PV060 / #644

PERSISTENT FEVER IN PATIENT WITH SARS-COV-2 AND SOMETHING ELSE: A RARE CASE OF INFECTIVE ENDOCARDITIS BY AGGREGATIBACTER ACTINOMYCETEMCOMITANS.

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Background and Aims: Infective endocarditis refers to infection of the endocardial surface of the heart, that if not treated adequately can be fatal. One of the rarest causes are the microorganisms of HACEK group, a very challenging entity, specially in the present paradigm with SARS-CoV-2.

Methods: We describe a 29-year-old male admitted to the emergency department with migratory arthralgias, myalgias, fatigue and fever with 3 weeks of evolution. He presented with tachycardia, fever and a de novo systolic heart murmur (grade IV/VI) in the left sternum side. Hemodynamically stable. The blood tests shown leukocytosis and elevated PCR and procalcitonin, and test for SARS-CoV-2 was positive. Blood and urine samples were collected for culture and empiric antibiotherapy with ceftriaxone was initiated.

Results: In the infirmary, due to lack of response to the treatment, gentamicin was added. Auto-immunity diseases, zoonoses and other infection entities were excluded. Later, transthoracic echocardiogram confirmed aortic valve endocarditis. Two weeks past, an aggregatibacter actinomycetemcomitans was confirmed in the gram testing. Patient was subject to aortic valve substitution with prosthetic valve, with no complications, and coagulation with

warfarin was initiated. In post-hospital discharge evaluation, the patient was asymptomatic, and the re-evaluation echocardiogram show a preserved left ventricle ejection fraction.

Conclusions: This case report emphasize the demanding challenge brought by a rare entity (HACEK microorganisms) and the importance of keeping the differential diagnosis in mind even when a more probable diagnosis is already present and no microorganisms are isolated in a proper time period.

PV061 / #646

A RARE CASE OF HEART FAILURE

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Background and Aims: Fabry disease is one of the most common lysosomal storage disease, caused by alfa-galactosidase A deficiency. Its clinical presentation is heterogeneous, progressive and multisystemic, causing kidney, heart and cerebrovascular disease.

Methods: We report a case of a 67-year-old woman with multiple cardiovascular risk factors, including a rheumatic valve heart disease to which she underwent a valve replacement at the age of 40 years old. Around her fifties, she started with progressive worsening tiredness and exertional dyspnea. During this time, she was only medicated with pharmacological therapy, namely diuretics. At 62, she was diagnosed with chronic liver disease, needing regular paracentesis for refractory ascites. It was interpreted as consequence of right heart failure with associated pulmonary hypertension, after being excluded metabolic, autoimmune and infectious diseases. She has also history of ophthalmic and otorhinolaryngology disease, still into investigation. At 65, she was evaluated by cardiac surgery due to a mitral periprosthetic leak, but she was considered unfit for valve repair, being proposed for heart transplant.

Results: During her pre-transplant evaluation, she was diagnosed with Fabry disease, being heterozygous for the c.638A>G mutation (p.N228S). She is now waiting the measurement of plasma and urinary GB3 results for decision on enzymatic treatment.

Conclusions: We pretend to increase awareness for an accurate diagnosis in heart failure, as its incidence is still increasing worldwide.

PV062 / #693

HYPONATREMIA IMPACTS 90-DAY READMISSION RATE IN CONGESTIVE HEART FAILURE WITH RENAL DYSFUNCTION

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Background and Aims: Kidney dysfunction worsens congestive heart failure (CHF) prognosis. Hyponatremia reflects a hypervolemic state and may further limit pharmacological

management in this subset of patients. We aimed to quantify the impact of low sodium levels in CHF patient with chronic renal disease after hospital discharge.

Methods: An observational retrospective study considered admissions to an Internal Medicine department from January 2018 to December 2018. The inclusion criteria were: adult patients, admitted for decompensated CHF, estimated glomerular filtration rate (eGFR) <60 ml/min/1.73 m², survived to discharge from hospital. We collected demographic data, clinical and analytical characterization of CHF. The sample was divided according to a 130 mEq/L serum sodium level cut-off. Bivariate and multivariate analysis was performed to characterize the association with 90-day hospital readmission outcome. A p-value less than 0.05 was considered statistically significant.

Results: Inclusion criteria were met by 171 patients. The mean age was 80.0 years (standard-deviation [SD] 7.7). Forty-seven patients (27.5%) were male. In 50 cases (29.2%) occurred a hospital admission within the 90 days after discharge. Sodium levels were lower than 130 mEq/L in 22 cases (12.9%). In this group, the 90-days readmission rate was higher (54.5% versus 25.5% p=0.005). Lower sodium levels were independently associated with 90-day readmission (odds ratio 3.4, p=0.010).

Conclusions: In CHF patients with eGFR <60 ml/min/1.73 m², a sodium level lower than 130 mEq/L was associated with a new hospital admission within 90 days after discharge. These patients may benefit from enhanced transitional resources to prevent this outcome.

PV063 / #774

INCIDENCE AND PREVALENCE OF STROKE IN PATIENTS WITH HYPERTENSION AND DIABETES MELLITUS

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Background and Aims: The complexity of cerebrovascular problems related to hypertension is not generally appreciated. Many epidemiologic studies have convincingly shown that diabetes is one of the leading risk factors for stroke. Aim of the study was to highlight the type of stroke that occurs in the evolution patients who were diagnosed simultaneously with hypertension and diabetes.

Methods: The study was carried out on a batch of 337 patients diagnosed with stroke. The study was conducted for a period of 3 years and was descriptive, observational-cross-sectional. For each patient were collected the dates and we obtain the personal record of patient. The dates were grouped in tabels for future statistical analysis.

Results: In patients with high blood pressure and diabetes mellitus (HBP+DM) most frequent vascular event, after 5 years, was

hemorrhagic stroke diagnosed to 14 patients (15%); ischemic stroke was diagnosed to 11 patients (11%) and transient ischemic attack to 9 patients (9%). According to gender, all vascular cerebral events occurred most frequently to men and according to environment, most frequent vascular cerebral events occurred to patients from urban area. The frequency of hemorrhagic stroke to patient from urban area was equal to that of the patients from rural area.

Conclusions: High blood pressure and diabetes mellitus are a stroke risk factors and correlated in patients with atherosclerosis but anyway most of the patients diagnosed with stroke have various risk factors and is a very important to identify all the risk factors for stroke as well as to teach the patient how to prevent the stroke.

PV064 / #780

SUBCLINICAL HYPERTENSION, ARRHYTHMIA, AND DISTRESS COPING STRATEGIES AND IN HEALTHY MEDICAL STUDENTS

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Background and Aims: An inadequate reaction to psychological distress associates with potential harm and may have a long-term consequence to the cardiovascular system. The study was aimed to investigate the relationship between perceived stress, strategic approach to coping and 24-hour ambulatory blood pressure and ECG monitoring indicators among normotensive young adults.

Methods: Holter ECG and ambulatory blood pressure monitoring were performed in 130 healthy medical students. Fifteen participants with mean systolic (SBP) or diastolic blood pressure (DBP) above 130 and 80 mmHg consequently and were excluded. The validated adapted Russian-language version of Strategic Approach to Coping Scale (SACS; Hobfoll et al.) and Perceived Stress Measure (PSM25, Lemur-Tessier-Fillion) were distributed to remained 79 female and 36 male students aged between 18 and 23 years.

Results: A significant positive correlation was found between SBP and DBP variables and scores of the "Perceived level of stress", "Aggressive Action", "Antisocial Action", and "Avoidance". Individuals with an "Aggressive Action" high scores had significantly higher heart rate and more tachycardia episodes of tachycardia. "Aggressive Action" and "Antisocial actions" scores correlated with the number of paired ventricular extrasystoles. In contrast, pro-social strategy indicators like Assertive Action, Social Joining, and Social Support scores had a negative correlation with BP levels indices and supraventricular rhythm ectopy.

Conclusions: The study revealed an association of perceived stress and distress coping patterns with blood pressure and subclinical rhythm disturbances in apparently healthy young adults. The results support the hypothesis that "antisocial" strategy to overcome a stressful situation might contribute to stress somatization and cardiovascular risk.

PV066 / #840

FACTORS ASSOCIATED WITH WHITE-COAT HYPERTENSION IN THE POPULATION-BASED SWISS LONGITUDINAL COHORT STUDY (SWICOS)

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Background and Aims: Several previous studies investigated white-coat hypertension and factors associated with it. To the best of the authors' knowledge, no previous population-based study comprehensively assessed factors associated with white-coat hypertension in Switzerland.

Methods: The population-based Swiss Longitudinal Cohort Study (SWICOS) assessed cardiovascular risk profiles in a Swiss community (Cama/Lostallo GR) of 496 participants, 61 participants with elevated office blood pressure (BP) ($\geq 140/90$ mmHg) underwent 24-hour ambulatory BP monitoring (ABPM). White-coat hypertension was defined as mean BP $< 130/80$ mmHg during ABPM.

Results: Of the 61 participants, who underwent ABPM, 20 (32.8%) had white-coat hypertension. Body mass index (BMI) was significantly lower in white-coat hypertension (25.8 vs. 28.9 kg/m², $p=0.010$), and depression was significantly more prevalent (35.0% vs. 9.8%, $p=0.030$). There were, albeit statistically non-significant, trends towards more female participants among white-coat hypertensives (55.0% vs. 34.1%, $p=0.17$), and more persons who were married (75.0% vs. 56.0%, $p=0.17$). There were no differences with regard to age, education, prevalence of cardiovascular risk factors, or the use of antihypertensive drugs.

Conclusions: The prevalence of white-coat hypertension in the general population is high with approximately one in three persons having white-coat hypertension. In particular, lean female persons with depression should undergo 24-hour ABPM to rule out white-coat hypertension.

PV067 / #865

TRICKY THROMBUS: A RARE CAUSE FOR PULMONARY EMBOLISM

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Case Description: 79 year-old male, medical history of hypertension and chronic kidney disease admitted with dyspnea, generalized edema and asthenia of 1 month. At admission BP: 152/70 mmHg, HR: 93 bpm, RR 25 rpm and anasarca. Laboratory findings: K: 6.8 mEq/L; Creat: 2.5 mg/dL (basal values 1.6); Urea: 87 mg/dL with no further alterations. Thoracic CT showed bilateral segmental pulmonary embolism (PE) with PESI score 98.

Clinical Hypothesis: PE is a common condition and the third most common cause of cardiovascular death. The causes are multifactorial: old age, active malignancy, recent fracture and many others, but hypoalbuminemia due to a nephrotic syndrome (NS) is rare (0.5%).

Diagnostic Pathways: Clinical investigation was extended: Lab results revealed Albumin 2g/dL; cholesterol total and LDH were high. 24h urine proteins 14g/24h; albuminuria 7.7.g/24h; microalbuminuria 768.4 mg/dL. Non-steroidal anti-inflammatory drugs were not taken. Autoimmune study, Hepatitis B and C, HIV serologies, screening for malignancy were negative. Renal echography showed no alterations. Renal biopsy was non-conclusive.

Conclusion and Discussion: Thromboembolic complications are the most important extrarenal consequences of NS. They result of the urinary loss of antithrombotic factors by affected kidneys and increased production of prothrombotic factors by the liver due to hypoalbuminemia. Although the treatment is the same in patients with or without NS, the recurrence of PE in these individuals could be fatal so the immediate treatment of the NS and its etiology may prevent unwanted consequences.

PV068 / #923

AN UNEXPECTED FULL RECOVERY – A CLINICAL CASE OF PROPAFENONE OVERSODE

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Case Description: An 18-year-old healthy female was admitted to the ER one hour after the ingestion of 6000 mg of propafenone with intent of suicide. On examination, she was conscious, oriented, and hemodynamically stable. After gastric lavage and active charcoal, she presented a self-limited seizure with bradycardia and hypotension followed by cardiac arrest. Intubation and CPR were performed.

Clinical Hypothesis: A propafenone toxicity was hypothesized.

Diagnostic Pathways: Analysis showed hypernatremia, metabolic acidosis and hyperlactacidemia. EKG before cardiac arrest revealed atrioventricular junctional rhythm, with absent QRS complexes. After prolonged cardiopulmonary resuscitation, she was mechanically ventilated, started aminergic and fluidotherapy support and a transient heart pacing was performed. Sodium bicarbonate was administered. She was admitted to the ICU and one day after extubating, she had a full neurological and hemodynamical recovery. Neurobehavioral examination was performed.

Conclusion and Discussion: Propafenone is a common class 1C anti-arrhythmic drug used in the management of arrhythmias. This case highlights the potential for severe cardio and neurotoxicity associated with propafenone intoxication. Clinical findings were seizure, hypotension, bradycardia, coma and metabolic acidosis. The progression of the condition was remarkable, and prompt treatment with early resuscitation, transient cardiac pacing, gastric lavage, mechanical ventilation, and administration of alkalinizing solution were believed to be life savors. HCO₃ is considered to be the treatment of choice for cardiac toxicity in the setting of sodium-channel blocker poisoning, being reasonable to suspect that it would benefit patients with propafenone toxicity. Although rare, propafenone overdose has been reported to be associated with severe cardiovascular and neurotoxicity.

PV069 / #934

MID-AORTIC DYSPLASTIC SYNDROME

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Case Description: A 53-year-old female presented to the Internal Medicine clinic with a 2-year history of atypical chest pain and bilateral leg pain with nocturnal worsening. She had arterial hypertension for more than 10 years and type 2 diabetes mellitus, without end-organ damage, including coronary artery disease. Physical examination revealed a left periumbilical bruit and weak bilateral lower limb pulses.

Clinical Hypothesis: Secondary arterial hypertension and lower limb claudication related to aortic narrowing.

Diagnostic Pathways: An abdominal CT scan with contrast was performed, revealing diffuse narrowing of infrarenal aortic artery (minimal diameter of 2x3 mm), stricture of the left common iliac artery and occlusion of the right common iliac artery with distal repermeabilization. Signs of collateral circulation were seen in the intervertebral arteries, without occlusion of the renal arteries and superior and inferior mesenteric arteries. The patient also underwent cervical doppler ultrasonography, documenting a sub-obliterative 80% stenosis of the proximal internal carotid artery with haemodynamic repercussion and significant intracranial collateralization to the right internal carotid vascular territory, through anterior and posterior communicating arteries. No

elevation of acute phase reactants was detected. A diagnosis of mid-aortic dysplasia syndrome was made.

Conclusion and Discussion: The mid-aortic dysplastic syndrome is an idiopathic congenital disorder characterized by abdominal aortic stenosis and strictures of its main branches. Although it is rare, it represents a potentially curable cause of secondary arterial hypertension. During follow-up, no end-organ damage was identified with optimization of anti-hypertensive treatment and the patient was referred to Vascular Surgery clinics for further evaluation.

PV070 / #939

THE INTERACTION BETWEEN ARACHIDONIC ACID METABOLISM AND HOMOCYSTEINE

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Background and Aims: Homocysteine (Hcy) is an intermediate product placed in the middle of the metabolic conversion pathway of methionine to cysteine. An increased homocysteine level leads to the condition of Hyperhomocysteinemia (HHcy), considered a risk factor for cardiovascular disease, inflammation, neurological diseases, cancer, and many other pathological conditions. Likewise, arachidonic acid (AA) metabolism is implicated in both vascular homeostasis, and inflammation. Aim of the study: This study reports the way homocysteine (Hcy) can influence the metabolism of AA.

Methods: In silico literature searches were performed on PubMed and Scopus as main sources.

Results: Interestingly homocysteine seems to improve AA release and to affect its metabolism altering the cyclooxygenase, lipoxygenase and cytochrome P450 pathways, leading to an impaired synthesis and activity of the resulting metabolites. In fact

HHcy increases levels of prostaglandin E2, inhibits prostacyclin synthesis and promotes thromboxane activity inducing vascular inflammation. High Hcy levels affect also the synthesis of epoxyeicosatrienoic acids (EETs) and hydroxyeicosatetraenoic acids (HETEs) by decreasing the first and increasing the second.

Conclusions: Overall these data revealed a novel effect of Hcy in different metabolic disorders and by targeting the implication of homocysteine in AA pathway, novel pharmacological compounds with better pharmacological and pharmacodynamic benefits may be obtained.

PV071 / #950

MEDIASTINAL MASS

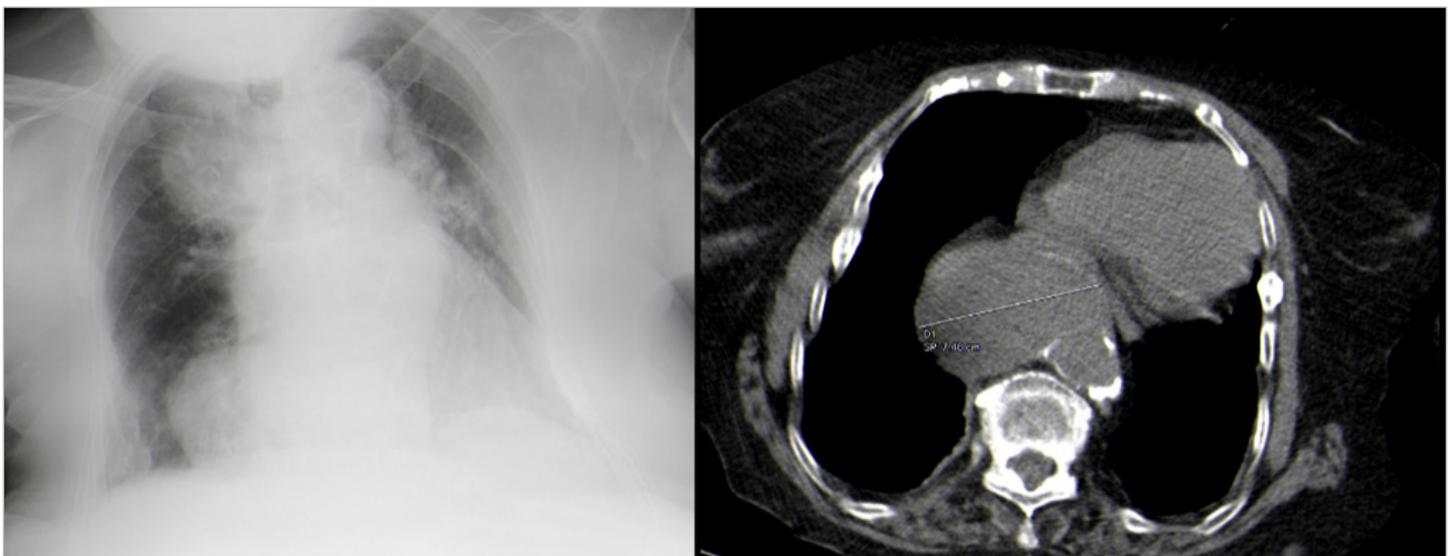
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Background and Aims: The thoracic aortic aneurysms are uncommon compared to abdominal ones. Most of thoracic aorta aneurysms occur in the root or ascending aorta. Descending aorta aneurysm are less common.

Methods: We report a case of a saccular descending aorta aneurysm.

Case Description: An 88-year-old woman with past medical history of arterial hypertension and stage IIIa chronic kidney disease was admitted into emergency room with a traumatic left proximal humerus fracture. The patient was proposed to orthopedic surgery and preoperative evaluation was performed. The electrocardiogram showed sinus rhythm with 76 beats/min and left ventricular hypertrophy. Preoperative anteroposterior chest radiograph revealed two masses, one in the superior and the other in the inferior right mediastinum. To clarify these findings computed tomography scan was performed and showed a saccular descending aorta aneurysm, 75 x 56 mm of axial plan and 76 mm of longitudinal plan. The patient was evaluated by



#950 Figure

cardiothoracic team that opted for conservative approach taking account risks and benefits. The proximal humerus fracture repair was made under regional anesthesia without complication.

Conclusions: Due to the lack of symptoms, thoracic aorta aneurisms are usually diagnosed through image exam performed for unrelated reason.

PV072 / #957

CAN IT BE AN ALLERGIC ANGINA CAUSED BY AN ANTI-INFLAMMATORY DRUG?

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Case Description: A 37-year-old woman, without previous diseases, presents to the Emergency Room with a twelve-hour edema of the left hemifacial and two-day history of superior respiratory infection. She denied rash, diarrhea and dyspnea. Except for facial edema, physical exam was unremarkable. Her blood pressure was 126/85 mmHg, heart rate 75 bpm. She was treated with intravenous hydrocortisone and clemastine simultaneously. Immediately after administration, she developed thoracic pain, hypotension (53/25 mmHg) and diaphoresis. Arterial lactate of 3 mmol/l. Electrocardiography: ST-segment elevation on V1-V2, marked ST-segment decrease on V3-V6. Echocardiogram showed normal ventricular wall motion, absent pericardial fluid. CT-angiography: no signs of pulmonary thromboembolism. High-sensitivity troponin-I was elevated (5878 ng/L). Fluid therapy and morphine were administered with an improvement in pain, blood pressure and normalization of electrocardiography. She was admitted to an intermediate care unit.

Clinical Hypothesis: Acute myocardial infarction (AMI).

Diagnostic Pathways: A coronary angiography didn't show any atherosclerotic lesions. Reevaluation by echocardiogram revealed akinesia of medial inferior left ventricular wall, corroborated by cardiac MRI. Tryptase and C1q levels were normal. During in-hospital stay, she remained asymptomatic, with normal blood pressure.

Conclusion and Discussion: Herein, it's described a case of an AMI due to an allergic reaction – Kounis syndrome. There is a release in inflammatory mediators (tryptase, histamine), stimulating coronary vasospasm. It might seem a paradox, but there are some cases described of anaphylaxis due to hydrocortisone, but none related to clemastine. Tryptase levels weren't elevated maybe due to a delay in its analysis. This was the first manifestation of sensitization in this patient.

PV074 / #971

APIXABAN IN ELDERLY PATIENTS WITH ATRIAL FIBRILLATION AND RENAL DYSFUNCTION: FINDINGS FROM A NATIONAL REGISTRY

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Background and Aims: We aimed to evaluate the clinical characteristics and outcomes of patients 75 years and older with atrial fibrillation (AF) and renal dysfunction who are treated with apixaban.

Methods: A sub analysis of a multicenter prospective cohort registry, where consecutive eligible apixaban or warfarin treated patients with non-valvular AF and renal impairment (eGFR MDRD <60 ml/min/BSA) were registered. All patients were prospectively followed-up for clinical events and dosing adjustments over a mean period of 1 year. The current sub analysis focused on the subjects aged ≥75 years. The primary outcomes were 1 year: mortality, stroke or systemic embolism, major bleeding and myocardial infarction as well as their composite occurrence.

Results: In the subjects 75 years or older with renal impairment (n=1460), the use of apixaban 5 mg was associated with improved 1-year survival rate (7.1% compared to 16.5% in the apixaban 2.5 mg group and 18.4% in the warfarin group; log rank p <0.001). Also, 5 mg apixaban showed lower risk of 1-year composite endpoint compared to apixaban 2.5 mg and warfarin (9.2% vs. 19.6% and 20.6%, respectively; log rank p <0.001). Further analysis on 1:1 matched data revealed a distinct advantage of efficacy to apixaban 2.5 mg appropriate dose reduction vs. warfarin. Never the less, similar safety profiles were observed.

Conclusions: Appropriate dose apixaban is a considerable alternative to warfarin in older adults with concurrent renal impairment for stroke prevention in the setting of AF.

PV076 / #1038

DRESSLER'S SYNDROME: A DIAGNOSIS NOT TO BE MISSED

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Case Description: A 67-year-old man with a history of acute myocardial infarction with surgical myocardial revascularization 3 weeks before was admitted to the emergency room with pleuritic

chest pain, progressive worsening dyspnea and fever with chills. On clinical observation he was feverish.

Clinical Hypothesis: Post-acute myocardial infarction syndrome was first described in 1956 by Dressler. Currently known as Dressler's Syndrome, its incidence has been decreasing, probably due to reperfusion outcomes and/or immunomodulatory effects of myocardial infarction therapeutics.

Diagnostic Pathways: Laboratory investigation showed a high CRP (13.4 mg/dL), without elevation of myocardial injury markers. The electrocardiogram showed T wave inversion in V2-V6. Chest CT angiography did not reveal pulmonary thromboembolism. The echocardiogram documented a hypertrophied interventricular septum, with apical segmental wall motion changes and preserved ejection fraction; a slight pericardial effusion was also documented. In this context, Dressler's syndrome was assumed. The patient was started on NSAIDs and colchicine to manage pain and reduce inflammation with fast clinical improvement.

Conclusion and Discussion: Dressler's syndrome occurs after myocardial damage caused by acute myocardial infarction, cardiac surgery or trauma. Although its incidence has been decreasing, clinical awareness and a timely diagnosis of this pathology is necessary in order to prevent complications such as cardiac tamponade or constrictive pericarditis.

PV077 / #1049

SEVERE ONSET HEART FAILURE IN A YOUNG WOMEN

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Case Description: A 41-year-old woman was admitted in the emergency service with abdominal pain, persistent vomiting and shortness of breath with 10 days evolution. Past medical history of non-specified arrhythmia and family history of heart disease (her mother died at 44 years old of sudden heart failure). Innocent physical examination at presentation, although she had 91% oxygen saturation on ambient air. Blood work showed elevated D-dimers 2602 ng/mL, Troponin T 30.1 ng/L and pro-BNP 3983 pg/mL. Angio-CT scan showed no signs of pulmonary embolism but revealed pleural effusion, cardiomegaly and liver congestion.

Clinical Hypothesis: Onset acute congestive heart failure

Diagnostic Pathways: Transthoracic echocardiogram revealed dilated cardiac chambers and reduced ejection fraction (27%). Holter showed very frequent ventricular extrasystoles. Cardiac MRI confirmed dilated cardiomyopathy with septal fibrosis. Case index genetic panel uncovered a mutation in the LMNA gene. The patient responded well to heart failure medication and is waiting ICD implantation.

Conclusions: Dilated Cardiomyopathy (DCM) is characterized by dilated and systolic dysfunction of left or both ventricles. Onset manifestations may be symptoms of heart failure, arrhythmias or

sudden death. DCM is classified as idiopathic when all possible causes are excluded (except genetic), which accounts nearly 50% of all causes. Additionally, up to 50% of patients diagnosed with idiopathic cardiomyopathy have a familial DCM. Familial DCM is majorly transmitted in a dominant autosomic and can be diagnosed early through family history. Identifying the index case allows prevention of sudden death (ICD implantation) and cardiac remodelling in family members.

PV078 / #1055

WHAT IS THE MAIN PREDICTIVE CARDIOVASCULAR DISEASE RISK FACTOR IN THE CONTEMPORARY YOUNG TRAIN CREW?

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Background and Aims: The essential hypertension among people worked on the train is sought may result from high professional stress. The aim of the study was to obtain the main predisposing risk factor during 6 years' time span in train crew.

Methods: 95 train drivers and their assistants aged 20-44 years (mean (M±SD) 31.3±7.7 yrs) underwent inpatient periodic assessment including Holter monitoring of heart rate and blood pressure (BP) and biochemical markers in 2013. Then they were annually monitored during 2014-2019.

Results: Elevated BP (mild or moderate arterial hypertension (AH) stage I-II) in 2013 had 35 patients, mean disease duration was 6.7±4.3 yrs, time of onset - 28.4±6.2 yrs. The most prevalent risk factors in the whole group were elevated body weight (38%), smoking (38%), hypercholesterolemia (30%) and obesity (18%). After 6 year follow-up 23 patients had developed AH. Only in this group body weight has been increased from 85.8±9.2 to 93.2±12.8 kg (p <0.01). Despite the mean systolic and diastolic BP at day and night were within the normal range, the day systolic (124.8±6.8 vs 120.8±6.1 mm Hg) and diastolic BP (74.4±6.8 vs 70.1±6.1 mm Hg) in 2013 were significantly higher in those had developed AH. No difference was found between groups in 2013 in smoking rate and lipid profile features.

Conclusions: The main negative prognostic AH risk factor in train drivers was weight gain. Health professionals must be aware and more active in promotion of health nutrition among workers in high occupational stress conditions.

PV079 / #1063

BROKEN HEART SYNDROME – HIDDEN TAKOTSUBO SYNDROME

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Case Description: A 68-year-old woman with personal history of hypertension, acute transient ischemic stroke. Admitted to the emergency department with a sharp squeezing chest pain irradiating to the left arm and back after an emotional stress, the news of the birth of a grandson. No other relevant data was gathered. A clinical examination revealed only hypertension (175/78 mmHg) with no other changes.

Clinical Hypothesis: Acute myocardial infarction, acute thoracic aortic dissection, pericarditis, anxiety, takotsubo cardiomyopathy

Diagnostic Pathways: The initial ECG showed ST-segment elevation in DII, DIII, AVF, V4 –V6 with a positive high sensitive troponin (590.8 ng/dL). She underwent emergent cardiac catheterization that didn't show obstructive coronary lesions, but hypokinesia of the apex and left ventricular segments were observed, with sparing of the basal segments. Transthoracic echocardiogram confirmed segmental cardiomyopathy in a hypertrophied left ventricular wall and a reduced ejection fraction (37%). Following ECG recordings revealed normalization from ST-segment elevation to symmetric T-wave inversion. No recurrence of chest pain.

Conclusion and Discussion: The diagnosis of Takotsubo cardiomyopathy (TC) is a challenge, since it affects 1-2% of all acute coronary syndromes, being characterized by a transient left ventricular apical wall motion abnormalities (hypokinetic or akinetic apical/midventricular myocardium and hypercontraction of basal segments), presence of chest pain, electrocardiographic changes, and modest myocardial enzymatic release in the absence of obstructive coronary artery disease (luminal stenosis <50%), typically associated with a complete recovery after 6 to 8 weeks. TC is usually associated with an emotional or physical stressful trigger.

PV080 / #1067

ACUTE PULMONARY EMBOLISM WITH NEGATIVE D-DIMERS

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Case Description: A 79-year-old woman complained of asthenia, dyspnoea, thoracic discomfort, and fatigue on minimal exertion with 15 days evolution. She denied fever, cough, haemoptysis, orthopnoea, syncope and lower limbs oedema or pain. She had no relevant medical history. Physical examination revealed tachypnoea, a blood pressure of 105/63 mmHg, heart rate of 92 bpm, afebrile and 91% peripheral oxygen saturation without supplemental oxygen. It also presents mucous discoloration, no relevant abnormalities on cardiopulmonary auscultation, discrete oedema in both lower limbs and Homan's sign negative.

Clinical Hypothesis: Heart failure decompensation, acute pulmonary embolism (PE), and evolved acute myocardial infarction.

Diagnostic Pathways: In the exams performed stands out a hypoxemic respiratory failure (pO₂ 59 mmHg), a respiratory alkalosis, anaemia (haemoglobin 10.8 g/dL), discrete troponin I elevation (0.090 ng/mL; N=0.0-0.056) and negative D-dimers (0.34 µg/mL; N=0.00-0.60). Because of the high suspicion of acute PE, despite the negative D-dimers, a computed tomography angiography was performed confirming the diagnosis. Also revealed a hypodense mass with 4 cm centred on the plane of the pulmonary valve that could correspond to an expansive process. After clinical stability, the patient was referred for cardiothoracic surgery to remove the mass. The anatomopathological analysis reveals a high-grade fusocellular sarcoma with an immunophenotype of angiosarcoma.

Conclusion and Discussion: Despite the high negative predictive value (>95%), D-dimers do not always allow the exclusion of pulmonary embolism. We must always analyze the D-dimers critically and establish our decision always considering the patient's clinical manifestations and all the information that the complementary diagnostic tests can provide think about their limitations.

PV081 / #1077

HYPERTENSION SECONDARY TO OBSTRUCTIVE SLEEP APNEA SYNDROME

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Case Description: A 38-year-old man with history of sudden development of arterial hypertension (AH) and polyglobulia, with smoking habits (smoking load of 14 units a year). He described a history of snoring and perception of night apneas associated with excessive daytime sleepiness, with a score of 6/24 on the Epworth sleepiness scale. On objective examination, he had excess weight (BMI 27.7 Kg /m²) and stage 3 AH, with no other major changes.

Clinical Hypothesis: Arterial hypertension secondary to

obstructive sleep apnea syndrome (OSAS).

Diagnostic Pathways: Analytically, presented polyglobulia (hemoglobin 17.3 g/dL, hematocrit 51.6%) and decreased erythropoietin. The genetic study of JAK2 V617 mutation and exon 12 mutation was negative. ECG in a sinus rhythm, without criteria for left ventricular hypertrophy. Functional respiratory study by spirometry and plethysmography was normal, as the alveolocapillary diffusion assessed by DLCO. Renovesical ultrasound with doppler evaluation of the renal arteries, without changes. A level III polysomnographic study was compatible with the diagnosis of OSAS (apnea-hypopnea index 38.9 events / hour, minimum SpO₂ associated with apnea 84%). Upon confirmation of severe OSAS, 6/14 cmH₂O autoCPAP was started with normalization of arterial tension, hemoglobin values and complete symptomatic remission.

Conclusion and Discussion: Diagnosis of secondary hypertension requires a high degree of suspicion. As the differential diagnosis is vast, an extensive investigation should be performed, guided by clinical history. Continuous positive pressure is the most effective treatment for all symptoms of OSAS, proving to be highly effective and contributing to the improvement of quality of life.

PV083 / #1126

ABDOMINAL AORTIC ANEURYSM RUPTURE – AN UNUSUAL PRESENTATION

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Case Description: A 77-year-old man, past history of obesity, arterial hypertension and dyslipidemia, attended the emergency room with a 1-day history of nausea, vomiting, diarrhea, and diffuse abdominal. He had no haematemesis or melena. On admission he had fever (39.2°C), was tachycardic (112 beats per minute) and hypotensive (64/40 mmHg) and oxygen saturation was 93% in room air. He had severe tenderness on abdomen palpation, bowels sounds were normal, and heart and chest examinations were unremarkable. He initiated fluid challenge that did not improve arterial pressure.

Methods: Analytically he had an elevated white blood cell count of $25,600 \times 10^9/l$ with 84% neutrophils, haemoglobin 11.3 g/dl and normal platelets. Serum creatinine was 2.78 mg/dl, urea 70 mg/dl and electrolytes and liver function tests were normal. PCR was 71.7 mg/dl. Arterial blood gas analysis revealed pH of 7.351, HCO₃ 15.2 mmol/l, pCO₂ 28.1 mmHg and lactate 7.8 mmol/l. Computed tomography revealed a large aneurysm in the infrarenal aorta with a longitudinal extension of about 17 cm with an exuberant mural thrombus and intraperitoneal extension of the haemorrhage.

Results: The patient underwent emergent surgical intervention, but eventually died.

Discussion: The clinical presentation of abdominal pain, diarrhea and fever can be challenging, since it can represent several other

pathologies, especially in the elderly population. Without the computed tomography, the abdominal aortic aneurysm rupture could have been missed and the patient treated for severe gastroenteritis.

PV084 / #1127

CASE REPORT: DILEMMA OF PROSTHETIC TRICUSPID VALVE RE-STENOSIS IN PATIENT WITH HEPATIC CIRRHOSIS: OPERATE FOR THE FOURTH TIME?

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Background and Aims: Rheumatic Heart disease (RHD) affects 33 million people over the world. Representing 95% of Brazil's multivalve diseases, 9% affecting the tricuspid valve. Patients with tricuspid prosthesis can develop prosthesis re-stenosis 7 to 15 years after valve surgery, though there is limited data on the theme.

Methods: Case report conducted based on medical record review.

Results: Woman, 51-year-old, alcoholism, RHD and 3 valves affected: Mitro-aortic stenosis and mixed tricuspid stenosis and regurgitation. Prior history includes 3 heart surgeries: mitro-aortic replacement for biological prosthesis (2007), mitro-aortic replacement for metallic prosthesis and tricuspid valvotomy (2008) and replacement of the tricuspid valve with biological prosthesis (2009) due to right heart failure (RHF).

After 9 years without follow-up for psychiatric issues, developed RHF, signs of Hepatic Cirrhosis and evidence of important tricuspid prosthesis

stenosis. Due to Society of Thoracic Surgeons score of 33% mortality, the heart team opted for clinical treatment.

After 6 months, she was admitted in Emergency department in mixed shock (Cardiac/Obstructive + Septic) and Acute Renal Injury needing hemodialysis. Due to the clinical instability, she was submitted to balloon tricuspid valvotomy. After procedure main gradient fell from 29 mmHg to 9 mmHg, she evolved with cardiac arrest after two days due to refractory shock and metabolic acidosis.

Conclusions: The Association of multiple comorbidities raise the peri-operative risk in valvar diseases. In this case, there was a 6 months survival with clinical management, death was due to systemic disease aggravated by the RHD. After literature review we observed little evidence on multiple surgical approaches due to prohibitive risk scores.

PV085 / #1162

DIFFERENCES IN CENTRAL SYSTOLIC, DIASTOLIC BLOOD PRESSURE AND PULSE WAVE VELOCITY BETWEEN SEVERE HYPERTENSIVE PATIENTS AFTER SIX MONTHS OF CONTROLLED HYPERTENSION

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Background and Aims: Arterial pulse wave velocity (PWV) is a well-established indirect measure of arterial wall stiffness. Aortic wall stiffness changes the PWV and Augmentation Index (AI) of the central pulse wave generated by the ventricular systole. The objective of the present project was to analyze the PWV values and central pressure values in elder patients that have resistant hypertension and compare these with those with hypertensive and the control group and also to analyse the effect of therapy.

Methods: Biochemical/haematological tests, electrocardiograms (ECGs), ambulatory blood pressure measurement (ABPM), central (c) and peripheric (p) Systolic (SBP), Diastolic (DBP) and Pulse Pressure (PP), PWV and AI was assessed. The patients were divided in two groups according to the treatment, H-hypertension without clonidine and HC-with clonidine. We compared these with one group control (C) match for the same age and sex and a comparison was also made between (B) before and (A) after six months after starting treatment with clonidine. The statistical models used were ANOVA oneway and t-student with $p < 0,01$ (two-tailed)

Results: The number of antihypertensive drugs was similar between groups except for the administration of clonidine. We found a difference cSBP (C: 110.2+12.1; H :117.2+13.2; CH: 122.2+12.5, $p < 0,01$), cPP (C: 41.3+13.6; H: 44.7+13.6; CH: 51.3+14.5, $p < 0,01$), PWV (C: 9.23+0.9; H: 11.3+1.1; CH: 14.2+1.6, $p < 0,01$), AI (C: 34.5+1,3; H: 37.3+1.2; CH: 40.3+1.5, $p < 0,01$), but not in cDBP after six months therapy. Comparing the time before and after treatment we found a significative difference in both HT in cSBP (B_H: 123.4+14.6; A_H: 117.2+13.2; B_HC: 138.5+13.6; A_HC: 122.2+12.5, $p < 0,01$), cPPCH (B_H: 46.2+12.8; A_H: 44.7+13.6, B_HC: 55.3+14.6; A_HC: 51.3+14.5, $p < 0,01$) and PWV (B_H: 12.3+1.6; A_H: 11.3+1.1; B_HC: 15.3+1.8; A_HC: 14.2+1.6, $p < 0,01$).

Conclusions: In patients that could be controlled only with clonidine and we found that after the control of hypertension, the central parameters were different when compared with H, and this difference was also detected in PWV and Ai which is an evidence of vascular damage.

PV086 / #1197

RIGHT-SIDED NATIVE VALVE BACILLUS CEREUS ENDOCARDITIS

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Case Presentation: 86 years old male, from a rural area, presented with unspecific malaise and dizziness. Denies gastrointestinal, genitourinary or respiratory changes with no use of injectable drugs. Clinically presents with high fever (39.3°C). Cardiopulmonary auscultation was unremarkable. Notable laboratory results were: hemoglobin of 8.5 g/dL; leukocytes of 8,50 10e3µL and C-reactive protein 7.9 mg/dL. Chest X-ray, chest, abdomen and pelvis CT demonstrated nil acute changes.

Clinical Hypothesis: Fever with no identified origin, ceftriaxone was started empirically.

Diagnostic Pathways: Blood cultures (two) were positive to *Bacillus Cereus* (BC). Uroculture, coproculture, *Leptospira*, Epstein-Barr virus, Cytomegalovirus, HIV result was negative. Echocardiogram showed vegetation in the tricuspid valve. Spine CT excluded spondylodiscitis. Diagnosed acute bacterial endocarditis secondary to BC. Antibiotherapy was changed for vancomycin and gentamicin. On the 18th day of vancomycin, skin rash and changes in hepatic parameters started, reaction to this antibiotic was identified and clindamycin was started for 24 days. Repeated echocardiogram without vegetation and blood cultures were negative.

Conclusion and Discussion: BC is a gram-positive bacilli found commonly in the environment. It is a rare cause of infective endocarditis (IE) in a native valve, typically associated with intravenous drug abuse, intracardiac devices, valvular heart diseases and immunosuppression. This case demonstrated a tricuspid valve BC endocarditis in a patient without predisposing factors that responded well to antibiotherapy. According to Dinesh et al; (2018) systematic review there were only 24 cases reported. IE may cause severe complications, therefore, premature identification and appropriate interventions can modify their prognosis.

PV087 / #1230

THE “BUTTERFLY SIGN” - WHAT'S THE DIAGNOSIS?

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Background and Aims: A 66 year old man went to the emergency room for dyspnea, orthopnea and blood-tinged secretions. A thoracic X-ray showed an opacity at the inferior lobe of the right lung. He was discharged with the diagnosis of pneumonia. Two days later, he returned since his symptoms had not improved. When asked he mentioned an episode of constrictive thoracic pain with irradiation to the left shoulder 4 days ago. A previously unnoted apical systolic murmur was present. He was hypotensive and showed severe signs of acute respiratory failure, needing ventilatory support. His electrocardiogram revealed sinus rhythm with QS complexes at the inferior leads. The blood analyses presented elevation of myocardial necrosis markers. The thoracic X-ray and CT showed exuberant opacities with “butterfly wings” shape.

Methods: The transthoracic echocardiogram showed an hyperdynamic left ventricle with akinesia at the medium and basal segments of the inferior wall, hypokinesia at the medium and basal segments of the posterolateral wall as well as a flail mitral posterior leaflet with moderate to severe mitral regurgitation and an highly eccentric jet. The coronary angiography showed occlusion of mid right coronary artery and severe stenosis of mid left anterior descending artery and first diagonal branch.

Results: In the scenario of acute mitral valve regurgitation secondary to myocardial infarction, the patient underwent urgent cardiothoracic surgery. He was discharged after 12 days, asymptomatic.

Conclusions: This case represents the importance of the anamneses, clinical examination and high clinical suspicion in the pursuing of an acute cause of heart failure in a patient with an unnoticed myocardial infarction

PV088 / #1292

A CLINICAL CASE OF TRANSIENT GLOBAL AMNESIA TRIGGERED BY FITNESS TRAINING

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Case Description: A 66-year-old woman was admitted to cardiology clinic due to a hypertensive crisis and acute memory impairment. Partial retrograde amnesia and loss of memorization were established. Increase in blood pressure up to 200 and 100

mm Hg and amnesia were preceded by intensive training in a fitness center. No data for the development of stroke or epilepsy. Captopril and intravenous administration of magnesium sulfate were prescribed. Blood pressure returned to normal after 4 hours. Amnesia lasted for 8 hours. No relapse of amnesia over the 3-year follow-up period.

Clinical Hypothesis: Hypertensive crisis and transient global amnesia (TGA) induced by intensive fitness training.

Diagnostic Pathways: A loss of auditory, visual, gustatory, and olfactory short-term memory was diagnosed. Spiral computed tomography of the brain revealed moderate subatrophy of the brain substance and impaired venous outflow through the superficial veins. Triplex scanning detected signs of diffuse atherosclerotic changes in the vessel walls of the brachiocephalic trunk and intracranial venous discirculation. Electroencephalography did not reveal pathological foci and epileptiform activity. There were no data for traumatic brain injury and alcohol blackout. Left ventricular hypertrophy was diagnosed.

Conclusion and Discussion: TGA is of considerable interest for therapeutic practice, since its development is possible in patients with arterial hypertension. Diagnosis of TGA is based on excluding other causes of amnesia, primarily stroke or epilepsy. In this case, it remains unclear whether the development of TGA in our patient is associated with a hypertensive crisis or both were provoked by excessive physical effort and coincided in time.

PV090 / #1344

QUALITATIVE EVALUATION OF THE HEART TYPE FATTY ACIDS BINDING PROTEIN IN PATIENTS WITH ACUTE PULMONARY EMBOLISM

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Background and Aims: Heart type fatty acids binding protein (hFABP) is an early and sensitive marker of the right ventricle (RV) myocardial injury, provides prognostic information in acute pulmonary embolism (APE), both in unselected and normotensive patients. The qualitative method of hFABP evaluation is poorly examined. We aimed to evaluate the diagnostic performance and prognostic value of qualitative hFABP assessment in APE of intermediate and high early mortality risk.

Methods: We enrolled 146 patients with APE of intermediate and high early mortality risk estimated by the ESC guidelines (2019) algorithm. The qualitative evaluation of hFABP concentrations was performed at admission by the immunochromatographic point-of-care test “CardiofABP” 10 ng/ml (Biotest, Russia) in

addition to the standard diagnostic procedures. The follow-up period duration was 30 days.

Results: Positive test for hFABP was verified in 86 patients (58.9%). There was the correlation between the test result and the estimated risk of early death ($r=0,425$; $p < 0,001$): in high risk patients, a positive test result was registered in 21 out of 25 cases (84%), intermediate-high – in 54 out of 80 (67.5%), intermediate-low – in 11 out of 41 (26.8%). The correlation analysis revealed associations of the hFABP test result with the occurrence of such APE complications as obstructive shock ($r=0.337$; $p < 0.001$) and death within 30 days ($r=0.336$; $p < 0.001$).

Conclusions: In patients with acute pulmonary embolism, a qualitative assessment of hFABP can be used for evaluation of the right ventricle myocardial injury and prediction of the clinical course of the disease.

PV091 / #1368

CONCURRENT PREDIABETES AND PREHYPERTENSION IN APPARENTLY HEALTHY ALGERIANS

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Background and Aims: The burden of concurrent prediabetes (PD) and prehypertension (PHT) in apparently healthy adults is not yet sufficiently documented. We conducted this study to estimate the prevalence of PD and associated cardiovascular risk factors in prehypertensive Algerians. To our knowledge, this is the first report on this subject in our country.

Methods: a cross-sectional study was undertaken in primary care consultation on a sample of 1086 adults, not known hypertensive. Patients were screened for PHT and prehypertensive patients were assessed for their anthropometric indices. Subject's fasting plasma samples in addition to 2-hour post-75-gram-glucose-load plasma samples were assessed for glucose levels.

Results: PHT was identified in 36.7%, affecting men more than women (50% vs 31.5%, $p < 10^{-3}$), with an average age of 42.3 ± 13.9 years. 52 patients with PHT were already known as diabetic. After screening 230 patients, concurrent PD and PHT was prevalent at 22.6% (N=52) with no significant gender bias. Sixteen patients had impaired glucose tolerance (7%) and 36 patients had impaired fasting glycaemia (15.7%). Anthropometric indices were significantly higher in prediabetics than in normoglycemic patients, including waist circumference ($p < 10^{-6}$) and BMI ($p=0.019$), with an obesity prevalence rate of 40.4%. Dyslipidemia was found in 15.4%. The metabolic syndrome involved 34.6% of these patients according to NCEP/ATPIII and 52% according to the IDF criteria. Concurrent PD and PHT was also associated with a high prevalence of sedentary (44.2%), and smoking (30.8%)

Conclusions: These data lead us to consider prehypertension as a starter to screen prediabetes and other cardiovascular risk factors in apparently healthy subjects.

PV092 / #1369

WHAT IS THE RELATIONSHIP BETWEEN MASKED HYPERTENSION AND OBESITY IN PREHYPERTENSIVE SUBJECTS?

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Background and Aims: The analysis of the ambulatory blood pressure (ABP) profile of patients with prehypertension (PHT) and the assessment of their cardiovascular risk (CVR) have rarely been studied. Our work aimed to establish the link between masked hypertension (MH) and CVR factors associated with PHT.

Methods: A cross-sectional study was conducted in primary care consultation in Algiers on a sample of 1086 adults, without known hypertension. They were screened for PHT (defined by the JNCVII as systolic BP of 120 to 139 mm Hg or diastolic BP of 80 to 89 mm Hg). Prehypertensive patients were assessed for their anthropometric indices and ABP measurement. The Pearson correlation test was used to investigate the relationship between MH and CVR factors.

Results: 399 prehypertensive patients were identified, mostly men ($p < 0.001$), and MH was diagnosed in 52.4% of cases, affecting men and women equally ($p=0.29$). Nighttime MH was significantly more frequent than daytime MH (57% vs. 36%, $p=0.0005$). Patients with MH were older than those with normal ABPM (46 ± 13.33 vs 42 ± 14.36 years, $p=0.01$), they had higher body mass index (BMI) (29.47 ± 5.507 vs. 26.6 ± 4.985 kg/m², $p=0.00001$) and more frequent android obesity (64% vs. 43%, $p=0.0006$). In MH patients, we found a positive correlation between daytime pressure and weight ($r=0.361$), BMI ($r=0.283$), and waist circumference ($r=0.374$). This positive relationship was also valid for the night pressure values ($r=0.379$, 0.399 , and 0.410 respectively).

Conclusions: Our results show the interest of monitoring ABP in prehypertensive subjects, especially as they are overweight.

PV094 / #1401

ARTERIAL STIFFNESS INDICATORS IN PATIENTS WITH ARTERIAL HYPERTENSION AND NON-ALCOHOLIC FATTY LIVER DISEASE

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Background and Aims: To assess the significance of concomitant non-alcoholic fatty liver disease in reducing the elasticity of the large arteries in patients with arterial hypertension.

Methods: A cross-sectional comparative study was carried out. The main group included patients with arterial hypertension (AH)

and non-alcoholic fatty liver disease (NAFLD) (n=50, 35 (70%) women, mean age was 57.4±6.9 years), the control group included patients with AH without NAFLD (n=50, 40 (80%) women, mean age was 56.5±7.0 years). A comparative analysis of the pulse wave velocity and central aortic pressure was carried out.

Results: As a result of the study, it is noted that in patients with AH and NAFLD, against the background of comparable values of “office” blood pressure, there were significantly higher systolic indices (123.5[113.0;131.0] vs 118.0 [108.0;125.75] mm Hg, p=0.0241) and diastolic (80.0[71.0;86.0] vs 75.5[70.25;80.0] mm Hg, p=0.0383) aortic pressure, augmentation index (30.0[22.0;33.5] vs 24.0[18.0;26.0]%, p=0.0122) than in patients with NAFLD without NAFLD. In patients of the main group, in comparison with patients in the control group, a statistically significant increase in the pulse wave velocity was found both in the muscle vessels (11.5[9.9;12.9] vs 8.9[8.3;11.2] m/s, p=0.0000) and elastic type (10.0[8.6;12.9] vs 7.6[7.1;9.8] m/s, p=0.0000), which indicates an increase in arterial stiffness.

Conclusions: Patients with AH and NAFLD have significantly more pronounced arterial stiffness than patients with isolated AH, which is confirmed by a statistically significant increase in pulse wave velocity and central aortic pressure.

PV095 / #1407

ASSESSMENT OF HEART TYPE FATTY ACIDS BINDING PROTEIN IN ADDITION TO HIGH-SENSITIVE CARDIAC TROPONIN I IN PATIENTS WITH ACUTE CORONARY SYNDROMES

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Background and Aims: Simultaneous evaluation of several markers of myocardial injury may improve the diagnosis of acute myocardial infarction (AMI). We aimed to evaluate the diagnostic efficacy of the assessment of the heart type fatty acid binding protein (hFABP) in combination with high-sensitive cardiac troponin I (hsTnI) in patients with acute coronary syndromes (ACS).

Methods: 183 patients (121 males, 62 females, median age – 63 years old) with ACS within 1 to 24 hours since onset of chest pain were enrolled in the study. The qualitative evaluation of hFABP was performed at admission by the immunochromatographic point-of-care test “CARD-INFO” 7 ng/ml (“OFK-CARDIO”, Russia). HsTnI (Pathfast cTnI, Mitsubishi Chemical, Japan) was measured quantitatively on admission and at 3 to 6 hours.

Results: The sensitivity of the biomarkers combination was 89.5% compared to 78.1% when evaluated hsTnI only (p <0.001). The superiority of hsTnI and hFABP combination over the assessment of hsTnI alone was noted mainly in patients with STEMI and within

1-6 hours from the onset of symptoms (p<0.001). The addition of an assessment of hFABP in addition to hsTnI did not lead to a significant decrease of the specificity (92.8% vs. 88.4%, p=0.250).

Conclusions: Assessment at admission of hFABP in addition to hsTnI in patients with ACS increases the sensitivity of the diagnosis of myocardial infarction by 11.4% without reducing of the specificity compared to evaluation of hsTnI only. The multimarker approach may be beneficial especially in the early stages of ACS.

PV096 / #1416

COULD BE THE OVEREXPRESSION OF MIR-16 AN INDICATOR OF ISCHEMIC DILATED CARDIOMYOPATHY?

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Background and Aims: MicroRNAs (miRNAs) play a main role in the signaling pathway of the pathophysiology of Ischemic dilated cardiomyopathy (iDCM). Besides, miRNAs have gained importance as diagnostic biomarkers as well as a target for the treatment of cardiovascular diseases. Previous studies have shown that circulating and intracellular miR-16 expression levels are up-regulated in coronary disease. AIMS We sought to analyse the circulating miR-16 expression levels in iDCM patients.

Methods: We enrolled 136 subjects: 76 healthy controls and 60 iDCM patients. All iDCM patients were confirmed with a coronary artery catheterization. Blood samples were obtained from healthy, iDCM and BAG3 rare pathogenic variant carriers subjects. Plasma miR-16 expression of iDCM patients, compared to healthy and familial DCM cohort, was performed with quantitative reverse-transcriptase-polymerase chain reaction. The Mann-Whitney test was used to analyze differences of miR-16 plasma levels between healthy and iDCM groups.

Results: The expression of miR-16 showed increased by 1.34-fold (p=0.039) in iDCM plasma when compared with healthy controls. No differences in miR-16 plasma levels in familial DCM patients were observed when comparing with healthy patients. The area under the receiver operating characteristic (ROC) curve (AUC) was calculated to evaluate the predictive power of miR-16 for iDCM. ROC analysis showed significant AUC assuming the discriminatory power to distinguish iDCM patients from controls AUC was 0.645 (95% CI: 0.5496-0.7403, p=0.004).

Conclusions: MiR-16 plasma showed overexpressed in the plasma of the iDCM and could play a role as a diagnostic biomarker, as well as a target for iDCM treatment.

PV097 / #1422

IMPORTANCE OF PERIPHERAL MICRORNA PANELS IN THE DIAGNOSIS OF ASYMPTOMATIC PATIENTS WITH FAMILIAL CARDIOMYOPATHY: GUIDE THE DIAGNOSIS.

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Background and Aims: Mutations in several genes can cause familial DCM, including LMNA and BAG3 genes. Early clinical detection of asymptomatic carriers of rare pathogenic variants in the LMNA gene (LMNA^{MUT}) and BAG3 gene (BAG3^{MUT}) remains a challenge. In the current study, we aim to characterize the miRNA signature in plasma from DCM patients and assess the utility of peripheral miRNAs as biomarkers for early diagnosis and treatment of asymptomatic familial DCM.

Methods: Observational, case-control and multicentric study including 154 subjects. We compared the miRNA expression levels in plasma samples from 10 idiopathic DCM patients, 10 LMNA^{MUT} carriers and 10 BAG3^{MUT} carriers. The expression levels of selected miRNAs were validated independently in plasma samples from 55 idiopathic DCM patients, 60 ischemic DCM patients, 20 LMNA^{MUT} and 19 BAG3^{MUT} carriers phenotypically negative for DCM. The regression coefficients of each miRNA significantly associated with the outcome were applied to estimate the miRNA panel value. Receiver operating characteristic (ROC) analysis and the derived area under the curve (AUC) were carried out for each miRNA to evaluate its diagnostic power.

Results: We identified a well-discriminating 5-miRNA panel (miR-19b-3p, miR-29a-3p, miR-130b-3p, miR-215-5p and miR-660-5p), that distinguishes between healthy controls and phenotypically negative carriers. ROC curves for the 5-miRNA panel was significantly higher than that for the best individual miRNA, only 1 to 10 of the subjects in this lowest tertiles were carriers of pathogenic variants.

Conclusions: Our work demonstrates that panels combining miRNAs are promising biomarkers for asymptomatic patients with rare pathogenic variants responsible for DCM.

PV100 / #1429

TRANSTHYRETIN CARDIAC AMYLOIDOSIS – CASE REPORT

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Case Description: An 86-year-old man with history of type 2 diabetes, arterial hypertension, obstructive sleep apnea, and chronic kidney disease presented with dizziness associated with postural changes, tiredness and dyspnea. He had had a syncope 5 months earlier and no other complaints. Physical examination was normal. Laboratory work showed an increase of free light chains in serum and urine, with a normal K/L ratio, without monoclonal peaks in protein electrophoresis. EKG showed sinus rhythm and a first-degree atrioventricular block. Hypertrophic heart disease with infiltration was showed on echocardiogram.

Clinical Hypothesis: Considering clinical features and complementary tests available, cardiac amyloidosis was the most likely diagnosis. Suspicion of transthyretin (TTR) amyloidosis rose, but light chain amyloidosis could not be excluded.

Diagnostic Pathways: Cardiac scintigraphy with ^{99m}Tc-DPD was performed and was strongly suggestive of amyloid infiltration in the myocardium (grade 3 in Perugini staging system) mainly at the left ventricle, supporting the diagnosis of TTR amyloidosis. The patient started treatment with loop diuretic and a follow-up consultation was scheduled.

Conclusion and Discussion: Cardiac amyloidosis should be suspected in patients with unexplained left ventricular hypertrophy. Nearly all cases of cardiac amyloidosis are caused by TTR amyloidosis or light chain amyloidosis. Syncope is frequently seen in patients with cardiac amyloidosis and most times is caused by advanced atrioventricular block or bradyarrhythmia. TTR amyloidosis is an underdiagnosed cause of heart failure. Clinical features, laboratory findings as well as echocardiography and cardiac scintigraphy can support the diagnosis. Loop diuretics are the keystone of treatment of cardiac amyloidosis.

PV101 / #1460

FAMILIAL DILATED CARDIOMYOPATHY: TRANSLATIONAL APPROACH THROUGH PERIPHERAL MICRORNAS.

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Background and Aims: The limitations of imaging cardiovascular tests and the risk of myocardial biopsy delay the diagnosis of dilated cardiomyopathy (DCM) leading to a vital need of novel and accessible diagnostic biomarkers. The aim of our study was to determine a panel of peripheral microRNAs (miRNA).

Methods: 154 patients were enrolled. The study included four groups: idiopathic DCM (n=55), ischemic DCM (n=60), and two groups of familial DCM, rare pathogenic variant carriers (LMNA^{MUT}, n=20) and BAG3 gene (BAG3^{MUT}, n=19). First, we

performed a screen to identify miRNA candidates that are differentially expressed between study groups. Then, we validated the expression of the differentially expressed miRNAs by qRT-PCR, in plasma samples from 55 idiopathic DCM patients, 60 ischemic DCM patients, 17 LMNA^{MUT} carriers, and 13 BAG3^{MUT}, both phenotypically positive for DCM echocardiographic criteria. Multiple logistic regression modeling was used to construct the miRNA panels.

Results: A 6-miRNA panel (let-7a-5p, let-7g-5p, miR-16-2-3p, miR-210-3p, miR-215-5p and miR-629-5p) that discriminate between patients phenotypically positive for DCM with (LMNA^{MUT} and BAG3^{MUT}-associated familial DCM) and without (idiopathic and ischemic DCM) pathogenic variants implicated in the development of the disease with an AUC (95% CI) of 87.8 (82.0-93.6). We also evaluated the distribution of patients with different etiologies across different tertiles of the 6-miRNA panel. Patients in tertiles 1 and 2 of the distribution of the panel were mainly composed of subjects with idiopathic and ischemic DCM (95/103, 92%).

Conclusions: Using a 6-miRNA panel, we were able to discriminate between DCM patients with pathogenic, or not, variants of DCM with high accuracy.

PV103 / #1465

CIRCULATING CIRC RNAs AS A NOVEL NONINVASIVE BIOMARKER IN DILATED MIOCARDYOPATHY

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Background and Aims: Dilated cardiomyopathy (DCM) is the third most common cause of heart failure. Multidisciplinary test such as genetics, imaging or cardiovascular techniques makes its diagnosis challenging. Peripheral circular RNAs (circRNAs) have become a leading research topic. They stand out as biomarkers for their stability, accessibility, biofluids gathering, and biological information providers of the pathological process. Despite that, they remain mostly unexplored in DCM. We aim assessed peripheral circRNAs expressed differentially among etiology-based DCM.

Methods: We scrutinize the expression of peripheral circRNAs between idiopathic DCM and non-idiopathic DCM. Differentially expressed circRNAs were validated in plasma samples by qRT-PCR and correlated to relevant clinical parameters. The pathophysiological implications were explored through bioinformatics tools.

Results: Four circRNAs showed overexpressed plasma samples compared to controls; hsa_circ_0003258, hsa_circ_0051238, and hsa_circ_0051239 in Lamin A-C (LMNA)-related DCM and, hsa_

circ_0089762 in the ischemic DCM cohort. Areas under the curve from 0.71 to 0.92 confirm the discriminative capacity of circRNAs. These circRNAs correlated with some echocardiographic variables suggesting a diastolic and systolic impairment. In the ischemic cohort LEVF and DBP were negatively related to hsa_circ_0089762; the LMNA^{ph-} subgroup all three circRNA were related to E's TDI, not being present in the LMNA^{ph+}. In this former, hsa_circ_0051238 was associated with A's TDI and with all circRNA and LVOT.

Conclusions: Our data show a plasmatic circRNAs set differentially upregulated in ischemic and LMNA related-DCM. Following these circRNAs, several clinical and echocardiographic parameters are related to them standing out its diagnostic potential in DCM. This study establishes the usefulness of circulating circRNAs as biomarker.

PV104 / #1479

SERIOUS COMPLICATIONS OF ATHEROSCLEROTIC DISEASE - MULTI-ORGAN INFARCTION AND THERAPEUTIC COMPLICATION

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Background and Aims: Renal infarction is a rare entity with thromboembolism and thrombosis in situ being the two main causes.

Methods: A 57-year-old man with history of heart failure, arterial hypertension, dyslipidemia, type 2 diabetes, smoking, peripheral arterial insufficiency and alcoholism, went to the emergency department (ED) for left low back pain irradiation to the iliac fossa and homolateral testicle with 8 hours of evolution.

Results: He presented with doubtful renal Murphy. Analytically with Creatinine 1.56 mg/dL and increased CRP. Computed tomography (CT) revealed total thrombotic occlusion of the abdominal aorta from the level of renal arteries, with subtotal infarction of left kidney, by occlusion of renal artery, in the right kidney an extensive parenchymal scar and right renal artery with marked atherosclerotic stenosis and extensive aortoiliac atheromatous calcification. Vascular Surgery pronounced no possible intervention at the renal level or urgent intervention of the aorta due to the absence of lower limb ischemia, with only indication for initiating hypocoagulation. In the ED, he developed dysarthria and deviation of the right labial commissure with AngioTC revealing recent cerebral fronto-insular cortico-subcortical cerebral ischemia and atheromatous calcification of bulbs of the internal carotid arteries, carotid siphons and V4 segment of the vertebral arteries. During hospitalization, he presented a slight decrease in left upper limb paresis with cranial CT showing hemorrhagic transformation of the ischemic

lesion requiring anticoagulation suspension. At discharge he had slight central facial paresis, left brachial paresis and worsening renal function, having been referred to an Internal Medicine, Nephrology and Physiatric consultation

Conclusions: This case shows the serious complications of atherosclerosis

PV105 / #1500

VASCULAR AGE AND RISK OF CARDIOVASCULAR COMPLICATIONS IN PATIENTS WITH ARTERIAL HYPERTENSION AND NON-ALCOHOLIC FATTY LIVER DISEASE

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Background and Aims: To assess the significance of concomitant non-alcoholic fatty liver disease in increasing the vascular age and risk of cardiovascular complications in patients with arterial hypertension.

Methods: A cross-sectional comparative study was carried out. The first (main) group included patients with arterial hypertension (AH) and non-alcoholic fatty liver disease (NAFLD) (n=50, 35 (70%) women, mean age was 57.4±6.9 years), the second (control) group included patients with AH without NAFLD (n=50, 40 (80%) women, mean age was 56.5±7.0 years). The study groups did not differ in the main clinical and demographic parameters (p >0.05). A comparative analysis of vascular age and 10-year risk of cardiovascular complications was carried out.

Results: As a result of the study, it is noted that in patients with AH and NAFLD, a significant increase in the vascular age was revealed in relation to the passport age (60.4 [56.0;68.0] vs 58.0 [53.0;60.0] years, p=0.0399), compared with patients with isolated AH. Also 10-year fatal risk in the main group was significantly higher (2.15 [1.42;4.63] vs 1.05 [0.52;2.82]%, p=0.0043) than in control group. and in the 1st group, there were significantly more patients with a high (13(26.0%) vs 5(10.0%), p=0.0332) total cardiovascular risk than in the 2nd group.

Conclusions: An increase in the vascular age in relation to the passport age indicates a more pronounced aging of blood vessels in patients with AH and NAFLD. Also comorbid patients have a higher incidence of a high 10-year risk of cardiovascular events compared with patients in the control group.

PV106 / #1508

PREDICTING CVA/TIA OCCURRENCE IN PATIENTS WITHOUT BACKGROUND AF/AFL USING THE CHA2DS2-VASC SCORE

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Background and Aims: The CHA2DS2-VASC score is a common clinical tool used to assess the risk of CVA/TIA in patients with atrial fibrillation (AF) or atrial flutter (AFL). We aimed to determine whether this score can determine the risk of CVA/TIA during the first year after hospitalization, in patients without known AF/AFL.

Methods: We included all patients aged ≥50 who were hospitalized during the years 2009-2018 to the internal medicine departments at the Chaim Sheba Medical Center, Israel. Exclusion criteria: 1. History or new diagnosis of CVA/TIA, AF/AFL 2. Use of anticoagulation at any time. Patients were stratified to 3 groups according to their CHA2DS2-VASC score (0-1, 2 or ≥3). The primary outcome was hospitalization with CVA/TIA within one year of the index hospitalization.

Results: 50,145 patients were included in the study. CVA/TIA occurred in 0.5%, 1.2% and 1.7% of patients with a CHA2DS2-VASC score of 0-1, 2 and ≥3, respectively. The HR for CVA/TIA was 2.25 (CI 1.74, 2.91, p <0.001) and 3.28 (CI 2.6, 4.14, p <0.001) for a score of 2 and ≥3 compared to a score of 0-1, respectively. Each additional CHA2DS2-VASC point increased the HR for CVA/TIA by 1.33 (CI 1.27, 1.4, p <0.001). A similar trend was observed when patients were sub-grouped according to gender, GFR and age.

Conclusions: The CHA2DS2-VASC score is a predictor for CVA/TIA during the first year after hospitalization in patients without AF/AFL. High CHA2DS2-VASC scores warrant further work-up for occult AF/AFL and other risk factors for CVA/TIA.

PV107 / #1549

QUO VADIS, COR SENIS?

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Background and Aims: Evidence-based guidelines directed to congestive heart failure (CHF) care were issued by the main international Cardiology Societies in the last decade. We aimed to characterize the evolution of admitted CHF clinical outcomes.

Methods: We studied the admissions in an Internal Medicine ward due to decompensated CHF in two 6 months periods with 5 years

apart. We collected age, gender, ambulatory therapy, presenting symptoms and signs at hospital, laboratory and imagiologic exams at admission. We studied the outcomes all-cause in-hospital death and hospital stay length. We compared these outcomes in the two periods applying χ^2 and t test for bivariate analysis, and regression for multivariate analysis. We further explored the differences in two age strata using a 75 years-old cut-off. Data was collected using the institution software and analyzed using IBM SPSS version 19. We assumed statistical significance when $p < 0.050$.

Results: The before group was composed of 155 patients (66 males, mean age 79.0 years). The after group comprised 166 patients (58 males, mean age 80.0 years). Length of hospital stay was similar in both groups. Intra-hospital mortality was 16.8% and 11.4%, respectively ($p=0.169$). Analyzing only patients younger than 75 year-old, we found differences in the mortality (before: 13.3% versus after: 0.0% $p=0.023$). In older patients there were no differences in the outcomes. More frequent prescription of aldosterone antagonist and angiotensin receptor-neprilysin inhibitor was noted in the after group.

Conclusions: Evolution towards better outcomes in admitted CHF were observed only in those younger than 75 years.

PV108 / #1550

MYOCARDITIS AND VIRAL-LIKE SYMPTOMS: A RETROSPECTIVE STUDY

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Background and Aims: Myocarditis is an inflammatory response within the myocardium not secondary to ischemic events. Most cases of myocarditis are idiopathic, however, it is known that many cases have a viral etiology since many viruses are cardiotropic. This study focuses on patients diagnosed with myocarditis and respective etiological study during a period of 12 months.

Methods: A retrospective cohort study between January and December of 2019 including patients diagnosed with acute myocarditis in an Internal Medicine Department.

Results: Thirty-five patients were diagnosed with acute myocarditis (62.9% male and 37.1% female with a mean age of 41.6 years). Most patients referred having had viral-like symptoms in the two weeks prior to hospitalization (48.5%; $n=17$ had symptoms compatible with acute gastroenteritis and 8.5%; $n=3$ had flu-like symptoms). The remaining patients (43%; $n=15$) were asymptomatic. Only 5.7% ($n=2$) had moderate amount of pericardial effusion which was drained and reverse transcription-polymerase chain reaction (RT-PCR) for Coxsackie B virus was reported positive in both. One patient (2.8%) was reported positive in RT-PCR for Influenza A virus and one patient (2.8%) was newly diagnosed with HIV infection.

Conclusions: Although most cases of acute myocarditis are idiopathic a post viral immune-related cause is frequent even

in the absence of demonstrable viral antigens. This study shows that at least 11.4% ($n=4$) of the patients had myocarditis due to confirmed viral infections, however, more than half (57.1%; $n=20$) reported viral-like symptomatology. This study reveals the importance of inquiring the existence of viral-like symptoms in the days/weeks prior to a suspected clinical manifestation of acute myocarditis.

PV110 / #1575

POSTURAL ORTHOSTATIC TACHYCARDIA SYNDROME FOLLOWING CORONA VIRUS '19 DISEASE

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Case Description: We report a case of new-onset postural orthostatic tachycardia syndrome in an otherwise healthy male patient following COVID-19. The patient, 32 years old, was diagnosed with COVID-19 on November 10th, 2020. Initially, he had minimal symptoms and normal oxygen saturation as measured by a pulse oximeter. Twelve days later the patient tested negative for SARS-CoV-2. However, troublesome symptoms started - he began experiencing fatigue, a headache, dizziness, chest pain, and palpitations, especially while getting up from sitting. The patient presented with fatigue, orthostatic palpitations, dizziness, and presyncope. Although the patient had previously done sport, ran marathons and enjoyed good health, he now suffered constant anxiety.

Clinical Hypothesis: Taking into account the patient's recent COVID-19 diagnosis, the cause of his symptoms was suspected to be a complication from COVID-19.

Diagnostic Pathways: He underwent head-up tilt-table testing and the findings were positive for postural orthostatic tachycardia syndrome. This finding along with his heart rate increasing by at least 30 BPM when changing from supine to sitting, his symptom alleviation when in supine position, the absence of orthostatic hypotension and the absence of any other covert causes of orthostatic tachycardia, lead to the diagnosis of postural orthostatic tachycardia syndrome (POTS).

Conclusion and Discussion: Although COVID-19 primarily affects the lungs, patients may have involvement of other organ systems. Case studies of the lesser known extra-pulmonary involvement are crucial to increase our knowledge and, thus, our standard of care for patients suffering from this complication.

PV111 / #1583

WHEN SALT BECOMES HEART BEST SOLUTION...

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Background and Aims: Hypervolemic hyponatremia with cardiorenal syndrome is a challenge in decompensated heart failure (HF). Optimizing diuretic therapy is the standard of care, but when diuretics resistance supervenes, hemodialysis is frequently the only solution.

Methods: The authors present the case-report of the use of hypertonic saline solution combined with loop diuretics in a HF patient with refractory hypervolemic hyponatremia.

Results: A 78-year-old man with ischemic cardiopathy and chronic kidney disease was admitted for acute HF. At presentation, a type B clinical hemodynamic profile (NTproBNP: 20910 pg/mL) with renal dysfunction (eGFR: 16 ml/min/1.73 m³) and hypochloremic hyponatremia (Na 132 mmol/L; Cl: 97 mmol/L) was observed. Intravenous furosemide was started, with an initial favorable response characterized by weight (-2 kg), eGFR (19 ml/min/1.73 m³) and NTproBNP (9580 pg/mL) improvement, but hyponatremia aggravated (127 mmol/L). Despite initial improvement, congestion signs, urine output (400-900 ml/day), weight (+4 kg) and hyponatremia (120 mmol/L) further worsened, and furosemide uptitration to a high perfusion dose was attempted, without success. A hypertonic saline 24-hour perfusion was attempted, and on the following 48 hours hyponatremia was corrected (136 mmol/L) in addition to weight (-5 kg) and urine output (2000-2500 ml/day) improvement, without further eGRF or NTproBNP deterioration.

Conclusions: Hyponatremia in HF mainly results from intravascular overload. Hyponatremia and concomitant hypochloremia enhance diuretic resistance in HF, limiting the nephron sequential blockage strategy with diuretics, possibly leading to urgent hemodialysis. Hypertonic saline associated with loop diuretics (also known as "hyperdiuresis") promotes diuresis and reduces intravascular overload mainly by reducing interstitial edema, while simultaneously avoids hyponatremia aggravation. In this patient, a successful hyperdiuresis strategy probably spared the need for urgent hemodialysis.

PV112 / #1584

SYNERGISTIC EFFECT OF EZETIMIBE AND STATINS ON LIPOPROTEIN PROFILES IN PATIENTS WITH TYPE-2 DIABETES MELLITUS-A META ANALYSIS

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Background and Aims: Statins are the cornerstone of lipid management in patients with Type-2 DM. Despite their efficacy, many diabetic patients do not achieve LDL-C goals. Diabetes is a well-recognized risk factor for cardiovascular diseases and hence, aggressive therapeutic approach is needed in some high-risk patients. Emerging evidence suggests that Ezetimibe as an adjunct to statins provides additional cardioprotective effects.

Methods: Electronic databases (Medline, Scopus, Embase, Cochrane) were searched until 25th November 2020. Using dichotomous and continuous data for select values, the standard mean differences and odd ratios (ORs) were calculated applying Mantel Haenszel (M-H) random-effects with significance to be considered if the confidence interval excludes 1 and p <0.05. The primary outcome of interest was percentage change in LDL-c and Apo-B levels. Secondary outcomes included drug-related adverse effects.

Results: A total of eighteen studies were included in our analysis. Average follow-up duration was 3 years. Combination therapy of ezetimibe and statin was correlated with a greater mean percentage change of LDL-C from baseline (WMD 17.9; 95%CI -19.85 to -14.54; p=<0.00001) Apo-B levels were also significantly reduced in the Ezetimibe/Statin combination group (WMD 6.16, 95%CI -8.40 to -3.91; p <0.0001). There was no significant differences in the incidence of drug-related Adverse events between the two therapies (OR- 1.10 95%CI 0.87-1.39; p=0.42)

Conclusions: Ezetimibe as an adjunct to statin monotherapy results in significant reductions in the levels of Apo-B, a predictor

of future cardiovascular disease, and also in the lipid parameters. Both treatments were well tolerated in patients with type 2 diabetes.

PV113 / #1592

EFFICACY AND SAFETY OF DOXYCYCLINE FOR MANAGEMENT OF SMALL ABDOMINAL AORTIC ANEURYSMS- A META ANALYSIS

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Background and Aims: Patients with small Abdominal Aortic Aneurysms are managed with surveillance as there is currently insufficient evidence to recommend surgical aneurysm repair. Hence, there is a dire need and interest in pharmacotherapy like tetracycline antibiotics to reduce the need for aneurysm repair.

Methods: Electronic databases (PubMed, Scopus, Embase, Cochrane) were searched until 25th November 2020. The primary outcomes were the mean difference (MD) in aneurysm diameter and the odds ratio (OR) calculated to compare the number of individuals referred to Abdominal aortic aneurysm repair in each group.

Results: A total of three studies with 572 participants (Doxycycline=290; Placebo=282) were included in our analysis. Average follow up was a period of 18 months. For AAA expansion, the combined results demonstrated a statistically significant mean difference in expansion rates favoring the placebo groups over the intervention (WMD-0.75, 95%CI 0.12-1.38; p=0.02; I2=0%) There was no statistically significant difference in the efficacy and safety of doxycycline as opposed to placebo groups for referral to AAA surgery (OR 1.01, 95%CI 0.61-1.69; p=0.96, I2=0%) and all-cause mortality (OR 0.51; 95%CI 0.18-1.43; p=0.20, I2=0%)

Conclusions: Amongst patients with small abdominal aortic aneurysms, doxycycline did not significantly reduce aneurysm growth.

PV114 / #1599

AN UNEXPECTED CAUSE OF WEIGHT LOSS

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Background and Aims: The authors describe a 64 year old woman, with past medical history of dislipidemia, type 2 non-insulin-dependent diabetes mellitus, hypertension, with heavy smoking history (40 packs year), who presented to the emergency department with anorexia, non-bloody diarrhea, postprandial bloating and pain which also worsened with defecation, and a loss of weight of 18 kilogrammes in 6 months. The physical examination was notable for an epigastric and periumbilical pain in deep abdominal palpation with no peritoneal signs.

Methods: Based on the consumptive clinical presentation, gastrointestinal symptoms and the patient's cardiovascular risk factors, our main suspicion relied on malignancy, chronic mesenteric ischemia or other chronic gastrointestinal pathologies such as inflammatory bowel disease.

Results: The blood and urine tests were normal. Abdominal computed tomography scan showed abdominal aortic atherosclerosis with excentric left infrarenal thrombus and celiac trunk and superior mesenteric artery stenosis with no sign of thrombosis. Colonoscopy was performed and showed no alterations.

Conclusions: A therapeutic dose enoxaparin scheme was initiated with subsequent switch to warfarin, with favorable clinical evolution. Chronic mesenteric ischemia is a rare condition, generally presented in women and patients older than 60 years old, characterized by diminished intestinal blood flow, in which the leading cause is atherosclerosis. The authors emphasize the importance of considering chronic mesenteric ischemia in patients with cardiovascular risk factors such as hypertension, diabetes, obesity and smoking habits that present longstanding gastrointestinal and constitutional symptoms.

PV115 / #1613

A RARE CAUSE OF PULMONARY HYPERTENSION

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Case Description: 67-year-old woman with arterial hypertension and moderate aortic stenosis. Presented with 6 months of progressively worsening dyspnea until dyspnea for small efforts and need for supplemental oxygen therapy. No other symptoms. From the objective examination to point out the presence of sclerodactyly with ulcers of several fingers and skin thickening.

Clinical Hypothesis: The patient was hospitalized to study a possible systemic sclerosis.

Diagnostic Pathways: Gasometrically with mild type 1 respiratory failure. Transthoracic echocardiogram showed dilation of the right

cavities associated with pulmonary hypertension (PH) with PSAP of ± 93 (85+8) mmHg. She underwent chest angioTC which excluded the existence of pulmonary thromboembolism. Immunological study: high sedimentation rate, high rheumatoid factor and anti-nuclear antibodies and positive anti-centromere antibodies. Thus, the ACR / EULAR systemic sclerosis classification scored 21 points and the diagnosis of systemic sclerosis was made. High-resolution chest CT scan showed the presence of non-specific interstitial pneumonitis. She underwent catheterization of the right heart that excluded structural disease of the left heart and revealed data compatible with pulmonary arterial hypertension. The final diagnosis was of limited systemic sclerosis causing pulmonary arterial hypertension and non-specific interstitial pneumonitis. The patient was discharged orientated for consultation with rheumatology and pulmonary vasculature diseases.

Conclusion and Discussion: Pulmonary arterial hypertension is a rare cause of PH, which results from pre-capillary pulmonary arterial remodeling, and the limited cutaneous form of systemic sclerosis is more often associated with this entity. The appearance of PH worsens the prognosis of systemic sclerosis.

PV116 / #1624

RESISTANCE TO DIURETIC THERAPY IN HEART FAILURE: A PARADIGMATIC CASE REPORT

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Background and Aims: Fluid overload resistant to conventional-dose diuretic therapy is common in patients with heart failure (HF). Renal impairment, poor diuretic absorption, drug–drug interactions, chronic administration of diuretics and high sodium intake are potential factors behind diuretic resistance in these patients.

Methods: We present a case-report of a attempt of a nephron sequential blockage in a patient with diuretics resistance

Results: A 70-years-old male with a previously known HF with mid-range ejection fraction in the context of a valvular cardiopathy (aortic valve replacement with a biologic prosthesis due to critical stenosis) was admitted with decompensated HF due to influenza A pneumonia. The patient was started on oseltamivir and furosemide (up to 280 mg/day). After 7 days he remained with marked pulmonary and peripheral congestion, inadequate diuresis and raised creatinine and NT-proBNP, despite infection resolution. The assistant medical team suspected therapeutic failure due to diuretic resistance and initiated metolazone and spironolactone, while reducing furosemide dose.

Conclusions: Diuretic resistance can be overcome by increasing the dose of diuretic, changing the route of administration, and finally by using combination therapy. This stepwise approach might lead to a more rapid alleviation of symptoms and potentially decreased length of stay in patients hospitalized due to HF.

PV117 / #1631

THE 4 PILLARS OF HEART FAILURE PROGNOSIS MODIFYING THERAPY WITH REDUCED EJECTION FRACTION: WHERE TO START?

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Background and Aims: SGLT2-inhibitors changed heart failure (HF) with reduced ejection fraction (HFrEF) approach. In the absence of contraindications, the prognosis-modifying therapy (PMT) relies on the prescription of an ARNi, a beta-blocker, an ARM and a SGLT2-inhibitor. The order and chronology for the introduction to each of these four pillars is under discussion.

Methods: The authors report the sequential and early institution of PMT in a treatment-naive HFrEF patient.

Results: A 58-year-old man was admitted for decompensated HF and pulmonary embolism (PE). He had HFrEF of ischemic etiology in a dilated phase with rEF (20%), and self-discontinued the therapy in the last two years. At admission he was in a type B hemodynamic clinical profile (HCP) with creatinine: 1.48 mg/dl and NTproBNP: 8536 pg/ml. A chest CT angiography revealed massive bilateral PE, and an echocardiography confirmed dilated cardiomyopathy with rFE (30%). He started anticoagulant and diuretic therapy. At 48 hours, valsartan 40 mg bid, bisoprolol 1.25mg qd and spironolactone 25 mg qd were started. At the 4th day, bisoprolol was titrated to 2.5 mg and dapagliflozin 10 mg qd was added. At discharge, the patient was on type A PCH and valsartan was switched to sacubitril/valsartan 24/26 mg bid. On the seventh week, the patient was in NYHA Class II, without congestion signs and reporting therapeutic compliance, with NTproBNP: 2860 pg/ml, creatinine: 1.24 mg/dl. Sacubitril/valsartan was titrated to 49/51 mg bid and spironolactone was switched to eplerenone 25 mg qd. Two weeks later, sacubitril/valsartan was titrated to 97/103 mg bid.

Conclusions: Modern PMT in HFrEF can be safely started upon HF hospitalization, allowing the opportunity for an earlier optimization.

PV118 / #1635

INTENSE ATHEROSCLEROTIC SYNDROME: A CASE REPORT OF 14 YEARS CARDIOLOGIC FOLLOW-UP

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Background and Aims: Ischemic heart disease is the main cause of death worldwide and it is responsible for more than 7.4 million annual deaths, corresponding to more than 13.2% of all deaths. The acute coronary syndrome (ACS) is a major health care and economic burden. This report aims to report and describe a complex case of a patient.

Methods: Case report based on a patient care and medical records, from 2005 to July 2019, in a cardiologic hospital in São Paulo, Brazil.

Results: Female, 81 yo, white, has systemic vascular disease, systemic arterial hypertension, compensated hypothyroidism and dyslipidemia, three ischemic strokes without sequelae, carotid atheromatosis, right renal artery occlusion, angioplasty with left renal artery stent, renal failure chronic, fusiform aneurysm of the abdominal thoraco aorta and left renal lithiasis. She presented with mRMC grade III dyspnea, grade III angina even after optimizing the clinical treatment. Due to the evidence of catheterization with the progressive worsening of her clinical condition, a myocardial revascularization surgery was indicated after years of follow-up. Even with the high surgical risk, the procedure was done to reduce mortality and also to help to control her symptoms, which are limiting the patient's quality of life. It was opted by a placement of a drug-eluting stent on the left coronary trunk with notable clinical improvement in later follow-ups.

Conclusions: Cardiovascular disease (CVD) is very often caused by factors that can be mostly prevented, such as type 2 diabetes mellitus, smoking, systemic arterial hypertension, dyslipidemia, physical inactivity and obesity.

PV119 / #1664

FEATURES OF REVERSE CHOLESTEROL TRANSPORT IN PATIENTS WITH ISCHEMIC HEART DISEASE WITH DIABETES MELLITUS TYPE II WITH DRUG CORRECTION BY PCSK9 INHIBITORS

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Background and Aims: To assess the degree of variation in laboratory parameters of reverse cholesterol transport in patients with ischemic heart disease with diabetes mellitus type II as a result of pharmacological correction by PCSK9 inhibitors.

Methods: The study includes 61 patients with very high cardiovascular risk (average age 53,16±3,32 years) taking Alirokumab 150 mg 1 time/14 days («PRALUENT», SANOFI, France) not having reached the target cholesterol of HDL despite optimal hypolipidemic therapy. The subjects were divided into two groups: with the presence (n=30) and the absence (n=31) of a diabetes mellitus type II. The degree of drug response was estimated six months after the start of treatment in all patients.

Results: HDL increased statistically significantly from the baseline by $\Delta 15.46 \pm 1.34\%$ ($p < 0.005$) and $\Delta 12.30 \pm 1.21\%$ ($p < 0.005$) in patients with ischemic heart disease with and without diabetes mellitus type II, respectively. The level of transport protein apolipoprotein A1 in the group of patients with ischemic heart disease with diabetes mellitus type II increased by $\Delta 9.17 \pm 0.79\%$ ($p < 0.005$) and by $\Delta 8.51 \pm 0.64\%$ ($p < 0.005$) in patients with ischemic heart disease without diabetes mellitus type II.

Conclusions: The drug response of reverse cholesterol transport as a result of pharmacological correction by PCSK9 inhibitors is the drug of choice in patients with ischemic heart disease with diabetes mellitus type II.

PV120 / #1716

ECG REPOLARIZATION PARAMETERS AND MYOCARDIAL INJURY MARKERS IN PATIENTS ON ANTIANDROGENIC THERAPY FOR ADVANCED PROSTATE CANCER

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Background and Aims: Androgen deprivation therapy (ADT) indicated in advanced prostate cancer and its subsequent hypogonadism can induce cardiac electrical instability and cardiotoxicity. It is difficult to separate the deleterious cardiac effects of hypogonadism itself from those of ADT, both of them being able to increase the risk of severe ventricular arrhythmias. Purpose. To evaluate the cardiac effects of ADT and subsequent hypogonadism in patients (pts) with advanced prostate cancer.

Methods: We included 31 pts 69.7±7.3 years old in sinus rhythm and stable cardiac condition under ADT. We assessed on ECG before (M0) and after 6 months of treatment (M1), corrected QTc interval (Fridericia formula), mean and max Tpe interval, mean and max Tpe/QT ratio; index of cardio-electrophysiological balance (ICEB) considered pathologic if a variation of over±10% between visits was present; 24 hours Holter ECG: bigeminy, trigeminy, couplets or unsustained ventricular tachycardia; hs-cTnI, NTproBNP. We used STATISICA 8.0.

Results: We noted between M0 and M1 significant prolongation of QTc, ($p=0.01$), max Tpe/QT ($p=0.01$), max Tpe ($p=0.01$), mean

Tpe ($p=0.02$), elevation of hs-cTnI ($p=0.01$). 51.42% pts had iCEB variation more than $\pm 10\%$, and significant QTc prolongation. NTproBNP did no change. 3 pts presented aggravation of ventricular premature beats. All pts had low serum testosterone at M1.

Conclusions: ADT during 6 months and subsequent hypogonadism induced prolongation of QTc, max and meanTpe, max Tpe/QT, elevation of hs-cTnI without clinical consequences. iCEB variation of more than $\pm 10\%$ in 51.42% pts suggests the role of ADT in the changes of repolarization.

PV121 / #1721

DIAGNOSTIC FEATURES OF PATIENTS WITH PULMONARY EMBOLISM IN THE PRESENCE OF A MALIGNANT NEOPLASMS

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Background and Aims: Identify laboratory and instrumental data in patients with pulmonary thromboembolism (PTE) against the backdrop of malignant neoplasm (MN).

Methods: A retrospective comparative analysis of laboratory findings among 60 patients suffering from PTE and PTE against the background of a MN making equal groups was carried out.

Results: Age difference no significant differences were revealed ($p=0.323$). Gender differences were not found ($p=0.031$). Were revealed in the venous system: the absence of deep vein thrombosis (DVT) was more common in the group of PTE against the background of MN - 10 (76.92%), and proximal thromboses were more common in the group without MN - 11 (78.57%). Simultaneous damage to superficial and deep veins more often occurred in the cancer group - 5 (71.43%), affection of the right heart was observed in 3 cases only in the cancer-associated group. The human serum albumin (HSA) level in the group of PTE without MN was 46.1 ± 10.4 g/l, in the group PE against the background of MN it was 38.9 ± 8 g/l ($p=0.033$). The threshold HSA value at the cut-off point equals 43 g/l. Between the HSA level with the presence of metastatic lesions, a correlation relationship was revealed ($p < 0.05$).

Conclusions: In PTE patients it is advisable to conduct in-depth oncoscarch in the atypical thrombosis localization, as well as in case of HSA level less than 43 g/l. A correlation relationship between HSA levels and metastatic presence spreading is borderline, probably due to a small sample, which requires further study.



AS03. CEREBROVASCULAR AND NEUROLOGIC DISEASES

PV125 / #313

HASHIMOTO'S ENCEPHALITIS.

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Background and Aims: Hashimoto's encephalopathy is an autoimmune disease with high serum titers of antithyroid antibodies. It was first described in 1966, until 2005 there were almost 200 published cases.

Methods: 41-year-old woman admitted with complex partial seizures of 3 months, headache and feeling dizzy, after performing EEG and cranial MRI without findings, without improvement after lacosamide and perampanel. Neurological examination with bradykinesia, hypoesthesia in the right hemibody, with hypoactive reflexes and flexor spasm in the right leg. Cerebellar-like ataxia with instability. Blood test with normal TSH and normal autoimmunity except anti-TPO > 1000; antiTG 574 (evolution: antiTPO 468; antiTG 252). Given the suspicion of possible autoimmune encephalitis, daily IV methylprednisolone boluses were started for 5 days (with little improvement), it was decided to start daily IV immunoglobulins with slowly progressive improvement, continuing treatment with cyclophosphamide.

Results: It is an encephalopathy whose pathogenesis is unknown. In 30% it is associated with other autoimmune disorders such as type 1 diabetes mellitus, systemic lupus erythematosus, or Sjogren's syndrome. Thyroid function is usually normal or with subclinical hypothyroidism.

Conclusions: The distinguishing feature for the diagnosis of this encephalopathy is the detection of antithyroid antibodies, especially antimicrosomal antibodies, since they are present in 100% of cases, although only 2.1/100,000 have cerebellitis, a male-female ratio of 1:4. Most of the reported cases occur during the fifth decade. Most patients respond to steroids (prednisone or methylprednisolone for 3-7 days) or immunosuppressants (such as azathioprine, cyclophosphamide, chloroquine, methotrexate), periodic intravenous immunoglobulin, and plasma exchange.

PV126 / #314

CHARACTERIZATION AND OUTCOME OF PATIENTS OVER 80 ADMITTED WITH ISCHEMIC STROKE

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Background and Aims: With the aging of the world population, we can expect a rise in the number of elderly patients with stroke in coming years. However, limited information is available on stroke care in these patients. We aimed to evaluate the clinical characteristics and outcomes of patients over 80-years-old hospitalized for an acute ischemic stroke.

Methods: The analysis was based on a retrospective review of patients' registry that were admitted with ischemic stroke at our stroke unit in 2019.

Results: Two hundred and five patients were divided into two groups: younger than 80 (n=122) and 80 and older (n=83, 40%). In the older group, 63% were female (n=52) and the mean NIHSS on presentation was 13.5. The most frequent aetiology was cardioembolic (n=46, 55%). Thirty-nine older patients (47%) received thrombolysis and 23 (28%) were submitted to thrombectomy. There was no significant difference in rates of thrombolysis or thrombectomy between the younger and older groups. Hemorrhagic transformation occurred in 21 older patients; 57% were asymptomatic transformations. Intra-hospital mortality in those over 80 was higher than in the under 80 group (22% versus 6% p=0.001). In the older group mortality was similar between those submitted or not to reperfusion therapy (22% versus 20%, p=0.932). A mRS ≤2 was achieved more frequently in younger patients (48% versus 26%, p=0.001).

Conclusions: A considerable percentage of stroke patients belongs to older age groups. The worse outcome associated with these patients may also depend on their pre-stroke medical condition.

PV127 / #320

MYASTHENIA GRAVIS AND TAKOTSUBO CARDIOMYOPATHY

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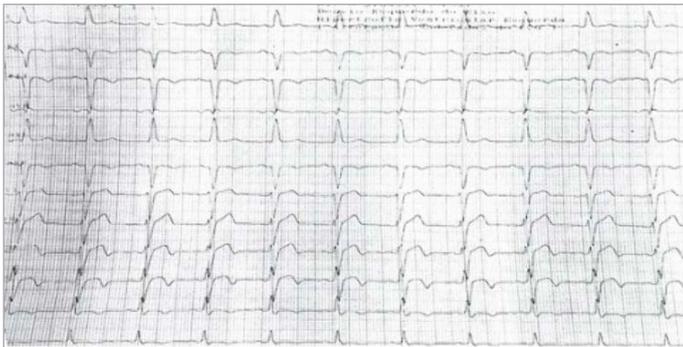
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Background and Aims: Myasthenia gravis (MG) is an autoimmune disease, associated with the presence of muscle-specific tyrosine kinase in 40-70% of patients, even with acetylcholine receptors antibodies absent, suggesting possible striated muscle, and so cardiac muscle, involvement. Are most commonly associated with MG Takotsubo cardiomyopathy and giant cells arteritis, the first being similar to acute coronary syndrome.

Methods: Case report.

Results: Man, 51 years old and 20 years of MG refers 30 days before consult onset of "chest pain", at rest, oppressive (9/10 scale), irradiating to mandible and left arm, lasted 10 minutes and subsided spontaneously. He sought his neurologist three days after, an electrocardiogram, coronary angiography (figure 1) and echocardiography (ECHO) were requested. First ECHO indicated ejection fraction (EF) of 34% (by Simpson), left ventricle hypokinesia and coronary angiography showed no sign of obstructive disease, but left ventricle dysfunction with apical hypokinesia. In the consult, he denied similar episodes, ivabradine and digoxin were started (betablockers are contraindicated in MG). 78 days after the onset of pain, another ECHO was performed, showing EF of 49% (by Simpson) corroborating the possibility of Takotsubo cardiomyopathy.



#320 Figure: Electrocardiogram (above) and coronary angiography (below)

Conclusions: Takotsubo cardiomyopathy may occur at rest on patients with MG, differing from its classic presentation. Furthermore, the underlying disease interferes in the treatment and ivabradine may be an alternate for beta blocker. References: Suzuki S, et. al Autoimmune targets of heart and skeletal muscles in myasthenia gravis.

Suzuki S, Utsugisawa K, Yoshikawa H. Autoimmune targets of heart and skeletal muscles in myasthenia gravis. *Arch Neurol.* 2009, 66(11): 1334-8. doi: 10.1001/archneurol.2009.229.

PV128 / #334

THERAPEUTIC RESPONSE PREDICTIVE FACTORS AND 18F-FDG PET/CT IN NEUROSARCOIDOSIS: AN OBSERVATIONAL STUDY OF 44 PATIENTS

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Background and Aims: Neurosarcoidosis (NS) diagnosis remains challenging regarding the heterogeneity of symptoms, neurological features and imaging presentation. The objective of the study was to describe patient characteristics and imaging results including 18F-FDG PET/CT, to assess treatments and to identify therapeutic response predictive factors.

Methods: All the patients of Dijon and Chalon-sur-Saone hospitals (Burgundy, France) diagnosed with NS from 1995 to 2019, as defined by the Neurosarcoidosis Consortium Consensus Group criteria, were included in an observational retrospective study.

Results: 738 patients diagnosed with sarcoidosis were identified, among whom 44 NS patients were included (6%). Mean follow-up time was 5.8±5.1 years. The onset of the disease was at a mean age of 47.6±14.4 years. Central nervous system (CNS) involvement was more frequent than peripheral and muscular involvements. The majority of the patients (88%) presented an abnormal MRI. 18F-FDG PET/CT was performed in 25 patients (57%), highlighting an increased CNS uptake in almost one third of cases (28%) and leading to biopsy with histological confirmation in 36% of cases. Corticosteroids were the most used treatment with frequent relapses. Methotrexate appeared to be the most effective immunosuppressive agent with a remission rate of 76.5%. Concerning refractory NS, infliximab appeared to be more effective than cyclophosphamide with a better remission rate (76.9% vs 37.5%, p=0.164). No treatment response predictive factors were significantly brought to light.

Conclusions: Some tools are underused in diagnosis work-up, such as PET/CT imaging. More extensive prospective trials are needed to identify prognostic factors and establish therapeutic guidelines.

PV129 / #391

ELASTIC PSEUDOXANTHOMA REVEALED BY ISCHEMIC STROKE

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Background and Aims: Pseudoxanthoma elasticum (PXE) is an inherited, autosomal recessive, multisystem disease characterized by progressive calcification and fragmentation of elastic fibres in the dermis, eyes and arterial walls. Symptoms usually begin around the second decade.

Methods: We report a case of PXE revealed by ischemic stroke.

Results: A 48-year-old patient, from a consanguineous marriage, presented an abrupt onset of heaviness in the left hemibody. She had no history of high blood pressure, diabetes, cardiovascular or neurological disease. The physical examination showed a blood pressure of 110/60 mmHg, peripheral pulses were present and symmetrical. Cardiopulmonary auscultation was without abnormalities. The neurological examination revealed left flaccid hemiparesis with abolished osteotendinous reflexes. Skin examination found lesions present since childhood made of finely papular, yellowish placard, located in the neck, axillary folds, abdomen and thighs. Biology had shown no abnormalities. Brain magnetic resonance imaging had found lesions suggestive of a sylvian stroke. Doppler ultrasound of the supra-aortic trunks showed subtle atheromatous infiltration. The CT angiogram of the aorta and its branches, the EKG and the Holter monitor were without abnormalities. The fundus showed

angoid streaks with old neovessels. Skin biopsy showed significant alteration in the network of fragmented and altered elastic fibres.

Conclusions: Stroke is a common health problem. A search for a PXE among the other causes of stroke in young subjects should be considered, especially in the event of skin involvement.

PV130a / #1194

PARADOXICAL SEIZURES IN PHENYTOIN TOXICITY

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Case Description: A 24 year old female, known case of seizure disorder on phenytoin tablets presented with seizure episodes following intake of Phenytoin tablets in excess of the prescribed dose.

Clinical Hypothesis: Computed Tomography of the brain was done and found to be normal. Other routine investigations were normal. Serum Phenytoin level was sent suspecting phenytoin toxicity and was found to be high.

Diagnostic Pathways: Post admission a gastric lavage was administered and the patient was educated about anti-epileptic

drugs. She was started with an alternative anti-epileptic and is currently on follow up.

Conclusion and Discussion: Toxic levels of phenytoin depends on dosage, route of administration and duration of exposure. Acute oral overdose affects cerebellar and vestibular system. Seizure as a presenting symptom for phenytoin toxicity is seldom reported.

PV131 / #468

CONTRIBUTION OF ACUPUNCTURE IN THE THERAPEUTIC MANAGEMENT OF FACIAL PARALYSIS

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Background and Aims: Peripheral Facial Palsy (PFP) is a common condition that impairs the motor skills of the face resulting in aesthetic, functional and psychological sequelae. Acupuncture is an ancient therapeutic method used for the treatment of PFP. The aim of our work was to evaluate the effect of acupuncture in the management of refractory PFP.

Methods: The initial assessment included a complete clinical examination and motor deficiency assessment based on Freyss muscle testing and House-Brackmann Grading. All patients have previously received medical treatment including corticosteroids, vasodilators and vitamin B for at least 15 days. Acupuncture treatment was performed according to protocol: one session a day every two days for a total of 10 sessions. The evaluation of the effect was made 15 days after the last session by referring to the two scales used previously.

Results: We included 25 patients. The mean age was 42 years [17-78]. Most of the patients (85%) had initially severe motor impairment (testing <20) and eight percent were classified as Grade IV. Electrotherapy was performed in 14 patients because of severe motor deficit. We observed a marked improvement in facial motor function with Grade III, IV and V as well as a complete regression in Grades I and II. Factors associated with a bad response were age, comorbidities, recurrent PFP ($p > 0,01$).

Conclusions: This work showed the positive effect of acupuncture on refractory PFP. More studies are needed to validate acupuncture as an effective and sufficient therapy in the management of PFP.

PV132 / #540

CEREBRAL VENOUS THROMBOSIS CAUSED BY PERSISTENT FORAMEN OVALE AND HYPERHOMOCYSTEINURIA

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Background and Aims: Stroke is a diagnostic and therapeutic emergency. Its causes are numerous, the priority being cardiological causes in young people but also general ones such as deficiencies.

Methods: We report the case of a patient with Crohn's disease who had stroke whose investigation revealed hyperhomocysteinemia due to vitamin B12 deficiency and a persistent foramen ovale complicated by parietal aneurysm.

Results: A 32-year-old patient with Crohn's disease on azathioprine presented with predominantly brachiofacial motor deficit of acute installation. The brain scan shows a spontaneous hypodensity in the territory of superficial middle cerebral artery, in favor of a recent stroke. The etiological investigation found on the cardiac ultrasound a patent foramen ovale with an interatrial septal aneurysm. The electrocardiogram and the holter were normal as well as the echo doppler supra aortic trunks. The search for other cardiovascular risk factors (diabetes, arterial hypertension, dyslipidemia) was negative. The deficiency assessment objective a low vitamin B12 at 84p/ml and a high homocysteine at 38µmol/l. The patient received vitamin B12 with normalization of homocysteine, maintenance treatment was continued for life because the patient had undergone extensive colonic resection during a severe Crohn's flare and his cardiac malformation was operated on to avoid recurrence.

Conclusions: The occurrence of a cerebrovascular accident in the young requires a careful investigation mainly cardiac, the foramen ovale with aneurysm is a possible cause (RoPE score) as well as the deficiency causes. Their research is important because they are curable causes in order to avoid recurrence.

Fermeture du FOP: ou en sommes en 2018? Quentin Chatelain and al.
Rev Med Suis 2018. Vol 14. 1090-1095.

PV133 / #559

BROWN-SÉQUARD SYNDROME: A PRESENTATION IN AN ADOLESCENT MALE FOLLOWING VERTEBRAL ARTERY DISSECTION

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Background and Aims: Our aim is to discuss the case of a rare presentation of vertebral artery dissection (VAD) which led to a spinal cord infarction, resulting in Brown-Séquard syndrome

(BSS). We are hoping to raise awareness that BSS symptoms can mimic those of a stroke. This should prompt examination for sensory deficit on presentation of hemiparesis, particularly with a history of trauma.

Methods: We report the presenting features, examinations, radiology, treatment and follow-up involved in this case.

Results: We present the case of a 17 year old male who developed BSS as a result of VAD that was thought to have occurred nine weeks previously. He experienced significant weakness of both limbs on his left hand side. On radiological investigation, a left sided VAD was noted, with three small cerebellar infarcts and an anterior cervical cord infarct, which was identified as the cause of the BSS. It was suspected that an anatomically small left vertebral artery contributed to the severity of his symptoms. He was treated with anticoagulation and multi-disciplinary team (MDT) input. His neurological deficit was almost completely resolved upon follow-up.

Conclusions: BSS is a rare condition, even more so in patients under 25 years old. It was first reported in 1998 and there have only been a few cases reported since. It is important to identify the underlying cause of BSS early while it is treatable, otherwise it can result in significant neurological damage. This case demonstrates the success of rapid diagnosis, effective anticoagulation and MDT input in leading to swift neurological recovery.

PV134 / #596

ACUTE ISCHEMIC STROKE, WHEN YOU FIND WHAT YOU ARE NOT LOOKING FOR

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Background and Aims: A 73 year-old woman smoker, with hypertension and dyslipidemia who has been recently hospitalized due to acute ischemic stroke on right radiated crown, and discharged from another hospital by the diagnosis of acute ischemic stroke without damage. During the admission a supraaortic trunks ultrasound and electrocardiogram were realized without pathologic findings. However the patient referred loss of strength in left side of body and dysarthria since yesterday. Furthermore she reported a possible hereditary blood disease in the family.

Methods: To describe a case report and to make a review about the different etiologies of ischemic stroke.

Results: At physical examination: Glasgow Coma Scale 15/15. BP 130/60 mmHg. 98% oxygen saturation. HR 70 bpm. Cardiorespiratory auscultation: rhythmic, no heart murmur, conserved lung ventilation. Loss of strength in left arm and leg, also loss of sensitivity in left side of face. Blood test: hemogram and coagulation were normal. Creatinine 0.52 mg/dl. Negative VIH and syphilis serology. Lupus anticoagulant 1.18 (positive),

IgG anti-cardiolipin Antibody 38.8 U/ml (positive) and anti-beta2-glycoprotein I 94.7 U/ml (positive). Non gene mutation in coagulation factors were found. Cranial TC-scan: subacute ischemic stroke of right middle cerebral artery. Echocardiography: normal. Left atrium not dilatated. 24hour-holter. paroxysmal atrial fibrillation.

Conclusions: The main causes of ischemic stroke are cardioembolic and arteriosclerotic one, but sometimes we cannot find it (cryptogenic) or even discover two as present case. This means we have to be careful rather the antiagregant or anticoagulant therapy we chose and the differents types of the last one.

PV135 / #608

COMORBIDITIES CUMULATIVE EFFECT ON ISCHEMIC STROKE SEVERITY AND PROGNOSIS

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Background and Aims: Stroke is the third most common cause of disability and second most common of death worldwide. There are a few comorbidities with known influence on the stroke prognosis, though it is not completely clarified if these comorbid conditions have a cumulative effect. We aim to determine if more comorbidities have a worse impact in these patients.

Methods: We performed a retrospective observational study by collecting data from patients who were admitted in the Emergency Department with ischemic stroke between 01/01/2018 and 31/12/2019. SPSS® was used for statistical analysis.

Results: We included a total of 283 patients, 53.4% (n=151) were male with mean age of 75.9±10.4 years. Patients were categorized according to the number of comorbidities and it was found that 24.7% (n=70) had no comorbid conditions; 25.1% (n=71) had one comorbidity; 23% (n=6%) had two comorbidities; 14.1% (n=40) had three and 13.1% (n=37) had more than four comorbidities. We acknowledged that patients with four or more comorbidities had higher NIHSS (p=0.049). We observed an increasingly tendency for longer hospitalization the more comorbid conditions the patient had, without statistical significance. Patients with more than four comorbidities had lower independency improvement during the hospitalization, with a smaller variation in the Barthel Scale (p=0.026). We verified that patients with more comorbidities had a higher one year mortality rate (p<0.001).

Conclusions: There is a cumulative effect of the number of comorbidities on the severity and prognosis of the stroke, verified in NIHSS score at admission, on hospitalization time, on independency improvement and in one year mortality rate.

PV136 / #613

A SIMPLE HEADACHE OR A CEREBRAL SINUS VENOUS THROMBOSIS?

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Background and Aims: Cerebral sinus venous thrombosis (CSVT) is a rare form of stroke that often affects younger age-groups. It is a potentially fatal neurological condition that is often underdiagnosed due to multiple clinical manifestations and because it is often challenging to obtain and interpret optimal and timely brain imaging.

Methods: Case report based on hospital clinical process consult.

Results: A 37-year-old female treated only with oral contraception and with a history of left otosclerosis and left frontal sinusitis went to the Emergency Room (ER) displaying a week-long persistent left headache, dizziness, tinnitus in the left ear and decreased bilateral visual acuity. Objective examination shown otoscopy with hyperemia on the left ear with no focal neurological deficits. An angio-CT scan revealed left maxillary sinusitis and no filling in the transverse, sigmoid sinus and the left jugular vein suggesting central venous thrombosis. MRI confirming the diagnosis of CSVT of the left lateral sinus. Patient was then hospitalized and anticoagulation treatment brought a progressive improvement of complaints. Thrombophilia, prothrombotic and autoimmune studies were undertaken, coming back negative making it clear that the real cause of CSVT was hormone therapy and sinusitis. Finally, the patient was discharged with an indication for anticoagulation therapy for 12 months and suspended oral contraception.

Conclusions: Due to the wide variety of clinical presentations, CSVT is particularly challenging to diagnose. Thus, as illustrated in the clinical case above analyzed, an elevated suspicion let to an early diagnosis and quick treatment, avoiding possible serious consequences in the future.

PV137 / #784

VIRAL MENINGITIS IN HEALTHY YOUNG ADULT

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Background and Aims: The most common form of acute meningitis is viral, with Enteroviruses being responsible in more than 90% of agent-identified cases. The symptoms are nonspecific: headache, fever, photophobia. Neck stiffness, if present, guides the diagnosis, and CSF is the confirmation method.

Methods: Case report.

Results: A 33-year-old man with no relevant history, namely without recent travel or contact with animals, went to the ED, October 2018, because of sudden headache with photophobia,

he was disoriented and presented incoherent speech. Detailed neurological examination not possible due to lack of collaboration from the patient. A cranioencephalic CT scan was performed, no alterations, and lumbar puncture showed crystalline cerebrospinal fluid “rock water”, compatible with lymphocytic meningitis: cells 410 Cell / mm³, Lymphocytes 98%, Glucose 85 mg / dL, Total Proteins 80 mg / dL. Empirical treatment with acyclovir was immediately started. CSF culture was negative and serologies and PCR research for virus were negative, along with serum serologies, so the responsible virus was not identified. Was also performed MRI which excluded encephalitis, and a normal electroencephalogram. Completed 10 days of acyclovir therapy with improvement, and no neurological impairment at hospital discharge.

Conclusions: This clinical case aims to alert to that meningitis that although relatively uncommon in the healthy young adults, requires an early diagnosis and immediate therapy, to avoid neurological sequelae.

PV138 / #812

AIR IS IN THE BRAIN! A RARE FATAL COMPLICATION OF CVC REMOVAL.

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Background and Aims: A 60-year-old man had a jugular Central Venous Catheter (CVC) inserted due to severe clinical condition. He developed rapid neurological deterioration, until coma, soon after CVC removal. Urgent cerebral CT scan documented right hemisphere endovascular hypodensities, compatible with air emboli. Despite high flow oxygen therapy, the patient has died 7 days after the event.

Methods: Cerebral gas embolism (CGE) consists of gas entrance in cerebral circulation, and it is usually a complication associated with CVC and other medical procedures; its presentation often mimics an ischemic cerebral stroke. CGE associated with CVC may involve the cerebral arterial circulation, which requires a right-to-left shunt to occur, or the venous one, due to retrograde air flow through the jugular vein.

Results: The diagnosis is clinically based and confirmed by radiology exams, usually CT scan, finding air in the brain.

Conclusions: CGE is a rare but highly fatal CVC-related complication, as witnessed in our patient, and treatment mainly consists of supportive therapy with low effectiveness: high flow oxygen at first, but also the Durant's manoeuvre, which aims to prevent air outflow from right ventricle.

Best CGE treatment is still its prevention: during CVC removal, Trendelenburg position, Valsalva maneuver or exhalation should be performed to increase the central venous pressure, so reducing the air embolism risk.

It is strictly necessary to raise awareness of this complication because it is potentially lethal but preventable, in order to behave

appropriately in case of acute onset of neurological symptoms after a CVC removal.

PV139 / #845

RENAL FUNCTION EVOLUTION IN STROKE PATIENTS WHO RECEIVED ENDOVASCULAR THERAPY

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Background and Aims: Concerning acute ischemic stroke, endovascular therapy for large cerebral vessel occlusion raises concerns about additional exposure to radiocontrast. We aimed to characterize kidney function evolution in order to identify contrast-induced nephropathy and also to study the impact of pre-existing kidney disease.

Methods: We retrospectively studied the admissions to the Cerebrovascular Diseases Unit of Funchal Central Hospital between March 2017 and February 2020 of those submitted to endovascular therapy. We obtained demographic and semiological characteristics. We measured plasmatic creatinine in three moments. We determined as outcomes: contrast-induced nephropathy, neurofunctional indexes and in-hospital death. We compared those with estimated glomerular filtration rate (eGFR) <60 mL/min/1.73 m² with the rest.

Results: Our sample of 62 cases (32 men [51.6%], age 69.6±10.9 [mean ± standard deviation] years, National Institutes of Health Stroke Scale [NIHSS] at admission 15.0±5.9), the plasmatic creatinine values were: admission 0.98±0.23; 48h 0.86±0.21; 5-7th day 0.87±0.22 mg/dL. None met contrast-induced nephropathy criteria. Those with eGFR <60 mL/min/1.73 m² (16 cases, 25.8%) did not differ in nephrologic evolution (plasmatic creatinine variation at 48h: -0.17±0.13 versus -0.11±0.11 p=0.067) or neurological (modified Rankin Scale ≤2:31.3% versus 23.9% p=0.563; ΔNIHSS: -0.94±9.6 versus -2.9±9.0 p=0.479; mortality: 18.8% versus 19.6% p=0.943).

Conclusions: In this sample, kidney function evolution was favorable and without contrast-induced nephropathy cases. Those with eGFR <60 mL/min/1.73 m² pre-procedure did not show a worst outcome.

PV141 / #946

POSTERIOR CIRCULATION STROKE AFTER HIP ARTHROPLASTY: CLINICAL CASE

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Background and Aims: Perioperative stroke is an uncommon but devastating complication that is difficult to diagnose. Its incidence is 0,6% after hip replacement. Basilar artery strokes are rare events that lead to poor outcomes due to clinical variability and non-specific manifestation that defy the archetypal presentation of stroke even more difficult in the postoperative state.

Methods: Single patient case report.

Results: Women, 67 years, hypertensive, left hip replacement, the previous stroke taking clopidogrel. Admitted to the hospital after trauma to the left hip without loss of consciousness. Computed tomography (CT) showed a left B2 periprosthetic femoral fracture. After 7 days she underwent revision arthroplasty with transfusional support during surgery. Locoregional anesthesia was uneventful but she had small hypotensive and tachycardiac periods. Initially, she was arousable and answer questions appropriately. 4 hours later, in the orthopedic ward her mental status waxed and waned, and respirations became irregular with a Glasgow coma scale of 6 and the National Institute of Health Stroke Scale of 21. Head CT showed segmentary occlusion in the basilar artery in its lower third. Discussed with vascular radiology intervention but no indication for endovascular treatment. Initiated medical treatment but there was no improvement and she subsequently died.

Conclusions: The sudden neurological deficits may be related to the surgery itself (hypercoagulability state, cerebral hypoperfusion due to hypotension) or to the patient medical co-morbidities. Postoperative mental status changes should be evaluated carefully by multidisciplinary teams to identify life-threatening and treatable etiologies. Recent advances in the acute care of stroke can improve outcomes if instituted promptly.

PV142 / #991

PEMBROLIZUMAB - HEPATITIS AND NEUROLOGIC IMMUNE RELATED ADVERSE EFFECTS

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Background and Aims: A 77 year-old male patient presented to the emergency department with generalized muscle weakness and diplopia for 3 weeks. A month earlier, Pembrolizumab was initiated as treatment for a metastatic melanoma. On physical

examination, complex ophthalmoparesis, ptosis, cervical and upper limbs weakness were identified.

Methods: Regarding neurological findings, intracranial lesions were addressed, especially brain metastases, taking into account the known melanoma. However, an immune neurologic adverse effect induced by Pembrolizumab was the most suspected hypothesis.

Results: Blood tests revealed elevated AST and ALT (>14 times normal upper limit), CK and LDH. Blood, urine and spinal fluid cultures were negative. Viral hepatitis was excluded. Autoimmune screening was negative, except for acetylcholine receptors antibodies. Head CT and MRI were normal. EMG demonstrated acute motor axonal neuropathy. Despite the latter being more compatible with guillain-barré syndrome, the clinical and laboratorial findings were suggestive of myasthenia gravis. Pembrolizumab was discontinued, but despite aggressive corticosteroids treatment, intravenous immunoglobulin and plasmapheresis, the patient ultimately died of acute respiratory failure 13 days after hospitalization.

Conclusions: Pembrolizumab is a monoclonal antibody against programmed cell death-1 protein used in multiple cancers. Its immune related adverse effects are unpredictable and clinicians should be aware of potentially fatal induced conditions during the early phase of treatment. We describe a rare case of neurologic and gastrointestinal immune related adverse effects of Pembrolizumab. Up to 30% of patients receiving immune checkpoint inhibitors can develop hepatitis, which usually presents as transaminitis, but the incidence of myasthenia gravis or guillain-barré syndrome is much lower, <1%.

PV143 / #1005

A RARE NEURODEGENERATIVE DISORDER- FAHR'S SYNDROME- A CASE REPORT

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Case Description: A 58 year old male presented with refractory intractable seizures for two days, multiple episodes of seizures, lasted for 3 to 5 minutes with no interictal recovery of consciousness.

Clinical Hypothesis: Radiological imaging was done to rule out irritating lesions. His computed tomography of brain was suggestive of calcifications in bilateral basal ganglia and thalamus suggestive of Fahr's syndrome. Other secondary forms were ruled out.

Diagnostic Pathways: Fahr's syndrome, accounting for 8-11% is a rare inherited neurodegenerative disorder characterized by abnormal calcified deposits in basal ganglia and cerebral cortex. It mainly affects young to middle aged adults.

Conclusion and Discussion: Patient was treated symptomatically. The disease manifests as deterioration of motor functions, speech, seizures and other involuntary movements. Progressive neurological deterioration results in disability and death.

PV144 / #1011

PAINTER WITH WRIST DROP-OCCAM'S RAZOR VS HICKAM'S DICTUM

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Case Description: A 42 years old male, painter by occupational presented with complains of right wrist drop and difficulty in extending fingers on same hand for three days. There was no pain or trauma associated with the above mentioned complains. There were no other neurological symptoms associated.

Clinical Hypothesis: Isolated wrist drop has an array of differential diagnosis varying from high parietal lesion to local nerve compression including toxicity and each of these conditions were excluded based on relevant history, clinical examination, imaging and laboratory investigations.

Diagnostic Pathways: Magnetic resonance imaging was done and found to be normal, nerve conduction study was unyielding. Other blood investigations were within normal range. Owing to the patient profession, he was screened for lead toxicity and was ruled out.

Conclusion and Discussion: Here we present a case of posterior interosseous nerve compression syndrome. Patient was treated conservatively and his condition improved subsequently and is on regular follow up. This case reiterates the importance of clinical examination and relevant investigations in day to day clinical practice. A description of the anatomy, pathophysiology and management of the disorder has also been discussed.

PV148 / #1053

SILENT: A CASE REPORT

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Case Description: A 72-year-old man was admitted with altered state of consciousness. He had stage 4 kidney disease and maintained treatment with lithium and levodopa / carbidopa for bipolar disorder and Parkinson's disease. He was obtunded, dehydrated, with no focal neurological deficits. Cranioencephalic CT-scan and MRI were normal. He had impaired renal function with toxic lithium levels (3.4mmol/L, N<1.3mmol/L). Therefore, he underwent emergent dialysis and lithium levels became undetectable within 24h. Nevertheless, he remained unconscious,

unresponsive and developed myoclonus on his left upper limb.

Clinical Hypothesis: Persistent sequelae of lithium intoxication have been described since 1980s and were named Syndrome of Irreversible Lithium-Effectuated Neurotoxicity (SILENT). Cerebellar dysfunction has been described as SILENT typical presentation, although clinical awareness will probably allow the recognition of different longlasting neurological features after removal of lithium from circulation.

Diagnostic Pathways: Although empirical antiepileptic therapy has resolved myoclonus, no epileptic activity was found in the electroencephalogram. Extensive investigations ruled out possible infectious, toxic and metabolic cause for coma. After almost three months of hospitalization, including a period requiring invasive mechanical ventilation, he quickly recovered from his neurological status, so the diagnosis of SILENT was assumed.

Conclusion and Discussion: SILENT has been recognized as persistent neurologic deficits in patients with lithium toxicity more than 2 months after cessation of lithium therapy. Demyelination is the main pathogenic feature. This is an infrequent case of SILENT since it presented itself as a persistent encephalopathic state with myoclonus. Clinical awareness is crucial regarding the potential of long-term reversibility of this neurological status, despite definitive treatment is still not available.

PV149 / #1076

CAN'T BREATHE: A NEUROLOGICAL CAUSE OF GLOBAL RESPIRATORY FAILURE

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Case Description: A 46 year-old woman presented with a one week history of fever, dry cough and worsening fatigue. She was a non-smoker and had a previous history of overweight and medicated asthma. Her physical examination was remarkable for signs of respiratory distress. Initial evaluation showed hypoxemia, respiratory acidosis and increased inflammatory markers with signs of a bilateral pneumonia on imaging. She was started on antibiotics, systemic corticosteroids and non-invasive ventilation with significant improvement but maintained the need for nocturnal ventilation. We then unveiled a two months history of weakness and difficulty climbing stairs, starting after Influenza vaccination. Neurological examination uncovered symmetrical tetraparesis with distal predominance and associated hyporeflexia, proprioceptive deficit and ataxic gait.

Clinical Hypothesis: At this point we were concerned about a neurological cause of hypoventilation.

Diagnostic Pathways: Further investigation retrieved a normal cerebral spinal fluid as well as brain and spinal cord magnetic resonance. Electromyogram was compatible with acute/subacute axonal sensorimotor polyneuropathy. Pulmonary function tests showed a restrictive pattern with diminished inspiratory pressure.

Screening for auto-immune, infectious and neoplastic disease was negative.

Conclusion and Discussion: We then assumed the diagnosis of an acute motor and sensory axonal neuropathy (AMSAN) and she was treated with a 5-day course of immunoglobulin with clinical improvement. AMSAN is an axonal variant of Guillain-Barré syndrome with motor and sensory involvement usually associated with a more serious and protracted course

Peter D. Donofrio. Guillain-Barre Syndrome. *Continuum, American Academy of Neurology*. 2017; 23(5):1295-1309.

PV150 / #1093

A CASE OF HERPES SIMPLEX VIRUS-1 ENCEPHALITIS IN A ELDERLY AND CONFUSING FACTORS

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Case Description: 80-year-old male with a history of type 2 diabetes mellitus and arterial hypertension, that starts with fever and weakness. At admission: disoriented with respiratory failure with hyperlactatemia and elevated inflammatory parameters. Chest radiography showed evidence consistent with pneumonia and a brain scan without acute changes. Admitted Sepsis, with starting point respiratory infection and started antibiotic therapy. During hospitalization, was observed altered state of conscious and seizure followed by left hemiparesis.

Clinical Hypothesis: The hypothesis of encephalitis was raised.

Diagnostic Pathways: Magnetic resonance imaging detected diffuse signal changes in the cortical and subcortical matter, in the temporal and parietal region in the right hemisphere and a focal EEG abnormality in the right posterior lateral region. Blood Serologic tests for HSV-1 and another virus was all negative. Was performed a lumbar puncture, Cerebrospinal fluid (CSF) with lymphocytic pleocytosis. CSF culture was negative, but viral DNA corresponding to HSV-1 was detected in the fluid. Diagnosed herpetic encephalitis and prescribed acyclovir. However, it presented an unfavorable outcome.

Conclusion and Discussion: Herpes simplex virus type 1 encephalitis (HSV 1) is the most common cause of sporadic fatal encephalitis. Clinically it is characterized by fever, headache and altered state of consciousness. The central nervous system is not infrequently affected despite the absence of viraemia. Herpetic encephalitis has high mortality, despite adequate antiviral therapy. In this case, the respiratory tract infection was a confounding factor. Therefore, prompt diagnosis and initiation of treatment with intravenous acyclovir are key to reduce neurologic sequelae among survivors and reduces mortality.

PV151 / #1249

DYSAUTONOMIA IN PARKINSON DISEASE AND MULTIPLE SYSTEM ATROPHY: THE ROLE OF GENETIC DETERMINANTS

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Background and Aims: Dysautonomia is a well-known feature of Parkinson's Disease (PD). New evidence suggests that PD patients with mutations in the GBA gene (GBA-PD) are characterized by worse dysautonomic features (such as orthostatic hypotension) and more severe sleep disturbance than idiopathic Parkinson's Disease (iPD) patients. GBA-PD patients are similar to Multiple System Atrophy (MSA) patients and this could be related to an early and drastic autonomic neurodegeneration. The aim of the study is to assess the differences of cardiovascular autonomic control (CAC) in PD patients with and without GBA mutations compared to MSA patients in order to discover a possible etiopathogenic link between GCase enzymatic defect and the degeneration of peripheral autonomic neurons.

Methods: We evaluated CAC at rest in 9 iPD, 11 GBA-PD, 8 MSA patients and 10 age and sex matched healthy subjects. ECG and respiration were recorded for the analysis of Heart Rate Variability using two different approaches, linear spectral analysis (SP) and non-linear symbolic analysis (SA).

Results: As for the demographic characteristics, the 2 PD sub-groups and MSA group did not differ significantly in age nor disease duration. At rest, iPD, GBA-PD and MSA patients showed higher heart rate and lower Total Power respect the control group, with significant differences between GBA/MSA and CTR. SA highlighted a significant reduction of vagal modulation in GBA-PD patients compared to the control group.

Conclusions: The present study suggests that GBA-PD patients present a more severe cardiovascular autonomic dysfunction compared to iPD, similar to MSA patients and with a greater impairment of the parasympathetic component.

PV152 / #1271

THIRD NERVE PALSY SECONDARY A MICROVASCULAR ISCHEMIA

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Background and Aims: A 72-year-old man presented with sudden double vision, ptosis and slight disequilibrium. Without history

of trauma, headache or loss of consciousness. He had history of diabetes, hypertension, dyslipidemia and obesity. Neurological examination showed a right-sided ptosis, horizontal diplopia and limitation on adduction on the right eye, consistent with third nerve palsy without other alterations.

Methods: A microangiopathic ischemic was the primary diagnosis as the cause of third nerve palsy because of vascular risk factors. Although with an insidious onset other causes as compressive or inflammatory diseases was thought.

Results: A brain computed tomography and magnetic resonance with contrast was performed, revealing multiple nucleo-capsular, peri-ventricular vascular sequelae and in the central region of the protuberance, without evidence of occupying space lesions or intracerebral aneurysm. Laboratory tests showed raised blood sugar, glycosylated hemoglobin of 10% and raised cholesterol, with negative autoimmune and virology study. Carotid ultrasound without stenosis. He started antiaggregating therapy and a control of hyperglycemia with close monitoring. After one year without symptoms.

Conclusions: The diagnosis of third nerve palsy secondary to diabetes caused by pathological microvascular ischemia and evidence of previously ischemic events was made. There are multiple etiologies of third nerve palsy. This case shows that a high clinical suspicion, detailed history and examination as complementary test essentially to exclude other causes are crucial for diagnosis. The control of vascular risk factors are important for the prognosis.

PV154 / #1301

PARKINSONS IRONY – NON MOTOR SYMPTOMS IN PARKINSONS DISEASE IN A SUB URBAN POPULATION IN A TERTIARY CARE CENTER IN SOUTH INDIA

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Background and Aims: Parkinsons disease (PD) is a neurodegenerative disease characterized by bradykinesia, tremors, rigidity, and postural instability along with non motor symptoms. We did a study to assess the incidence of non motor symptoms (NMS) in PD in a sub urban population in south India and to correlate the severity of NMS in PD patients with the severity of the disease.

Methods: We did a Cross sectional observational study in 50 Parkinsons patients for a period of 6 months. of the 50 patients 31 had NMS based on the questionnaire. Severity of the disease was assessed using the unified Parkinsons disease rating scale (UPDRS) and each NMS incidence were compared with UPDRS scale.

Results: The incidence of NMS was found to be 62% in our study cohort. There was no significant association between the severity of the disease and non motor symptoms of PD in accordance to the UPDRS scale.

Conclusions: To the best of our knowledge this is the first study conducted in a suburban population in Kanchipuram district assessing the incidence of NMS in Parkinsons patients and correlating it with the disease severity. The study reiterates the necessity to address to the non motor symptoms of Parkinsons disease irrespective of the disease severity owing to its high incidence.

PV155 / #1308

A RARE CASE OF SPONTANEOUS CERVICAL EPIDURAL HAEMATOMA MIMICKING A STROKE

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Case Description: A 78 year-old woman presented following development of sudden onset occipital headache alongside left arm and leg weakness whilst dressing. The headache radiated to her neck and shoulders. Her medical history included hypertension, hypercholesterolemia, previous episode of right sided amaurosis fugax and an ex-smoker status. Initial examination demonstrated marked left arm and leg weakness, in absence of sensory or cranial nerve deficit.

Clinical Hypothesis: Initial hypothesis was of an acute stroke or subarachnoid haemorrhage. CT brain failed to demonstrate intracranial haemorrhage, with CT angiography excluding dissection as a factor and MRI brain showing no evidence of an acute infarct.

Diagnostic Pathways: Owing to severity of neck pain, MRI of cervical spine was requested in advance of considering thrombolysis. This revealed an epidural haematoma of cervical spinal canal with cord displacement and compression. The patient was referred to for urgent neurosurgical intervention. She underwent a spinal decompression and rapidly regained power post-surgery, alongside allied health rehabilitation.

Conclusion and Discussion: Symptoms of cervical epidural haematoma symptoms may present suddenly, similar to a stroke, though neurological impairment is due to haematoma compression of spinal cord rather than supratentorial infarct or bleed. A high index of suspicion is required, and MRI of cervical spine indicated where doubt exists, prior to administration of thrombolysis or antiplatelet therapy. This case highlights the importance of careful history taking in the management of a patient with common stroke symptoms, and the need for caution where atypical symptoms, such as severe neck pain in this instance present.

PV156 / #1310

PREVALANCE AND ASSOCIATION OF PSYCHOGENIC NON EPILEPTIC SEIZURE AND SEMIOLOGY ASSOCIATION WITH PSYCHIATRIC DISORDERS IN A SUB URBAN POPULATION IN SOUTH INDIA

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Background and Aims: Psychogenic non epileptic seizures (PNES) or pseudo seizures are Functional Neurological Disorders where there are episodes of paroxysmal events with alteration of behaviour and consciousness due to psychological origin. We did a study to assess the association of psychiatric disorders and personality clusters with the semiology of PNES or pseudo seizures and the precipitating stimuli leading to the event.

Methods: We did a cross sectional observational study in a cohort of 51 patients with seizures for a duration of 6 months. Out of 51, 20 cases were diagnosed as PNES or pseudo seizures. Psychiatric assessment was done to assess precipitating stimuli and associated psychiatric illness. The association of the individual semiology was assessed with personality disorder and psychiatric illness.

Results: In our study cohort, 39% cases of seizures were PNES or pseudo seizures. There was no significant association of the semiology of seizures with the psychiatry disorders and the precipitating stimuli.

Conclusions: Our study conveys that PNES is seen in patients with psychiatric illness and precipitating stimuli, suggesting that psychosocial counselling and cognitive behavioral therapy is the most effective way to treat PNES.

PV157 / #1373

TETRAPARESIS AFTER FLU VACCINATION

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Case Description: Male, 83 years old. Background of arterial hypertension, third degree atrioventricular block (with pacemaker) and benign prostatic hypertrophy. Smoking habits and social drinking. Fully autonomous for activities of daily living. No further relevant medical history. No contact with farm animals. No recent travels. The patient resorted to the Emergency Department (ED) due to paresthesias and sudden loss of mobility of all limbs, having visited the ED, the day prior, with cranial trauma after falling, without loss of knowledge. The neurological examination showed areflexic and flaccid tetraparesis and generalized hypoesthesia. No sphincter symptoms. No fever.

Clinical Hypothesis: Acute spinal cord injury. Metabolic polyneuropathy. Acute inflammatory demyelinating polyradiculopathy. Ischemic or haemorrhagic stroke.

Diagnosis Pathways: In the ED: Brain CT Scan excluded ischemic or haemorrhagic stroke, acute posttraumatic brain injury and intracranial space occupying lesions. During admission: Initial corticotherapy for suspicion of acute spinal cord compression, later excluded by cervical and thoracic spinal cord MRI. A sudden episode of severe acute respiratory distress raised suspicion about a diaphragmatic paralysis. Lumbar puncture confirmed an albuminocytological dissociation and excluded central nervous infection; Electromyography showed delayed latency of F-waves in the lower limbs. Initializing immunoglobulin therapy had an evident clinical improvement. While investigating potential causes, a recent flu vaccination (6 days before) was discovered.

Conclusion and Discussion: The Guillain-Barre Syndrome as a consequence of a Flu shot was considered the primary diagnosis after excluding all other possible causes. This, combined with the patient's advanced age makes this an interest case.

PV158 / #1437

STROKE AS THE FIRST MANIFESTATION OF A DISSEMINATED INTRAVASCULAR COAGULATION SECONDARY TO OCCULT NEOPLASM

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Case Description: A 65-years-old with a previous history of diabetes mellitus type 2, arterial hypertension, dyslipidemia, ischemic heart disease and a smoker. Presented in the emergency room with disorientation without other focal signs for the last three days. On admission: vitals stable, disorientation and left hemianopsia.

Clinical Hypothesis: Simple blood work without any significant changes and test negative for COVID-19. Cranial CT scan revealed a recent ischemic lesion on occipital lobe and multiples lesions consistent with chronic ischemic stroke. As complication develops an heart attack and aggravation of his clinical state with cranial imaging revealing new ischemic lesion, having started hypocoagulation. 2 days later, a deterioration of neurological state, neuroimaging revealing brain hemorrhage. Analytically with changes in coagulation: increased prothrombin time, decreased fibrinogen and D-Dimers 40 mcg/mL (RV- <0.5 mcg/ml). Assumed a case of Disseminated intravascular coagulation (DIC) without determined cause.

Diagnosis Pathways: Thoracic computed tomography was performed to clarify a suspicious lesion on the initial chest X-ray, which revealed a spiked lesion suspecting a neoplasm and aspects suggestive of splenic and renal infarction. In this case

of DIC, the probable cause was lung cancer, and was proposed for transthoracic biopsy of the lung injury, however, due to the unfavorable clinical and neurological evolution that wasn't possible.

Conclusion and Discussion: In DIC cases, therapy is based on treating the cause and; in some cases described, anti-thrombotic treatment such as enoxaparin, which in this case was not viable due to cerebral hemorrhagic complications. Best supportive care was assumed and the patient died on the 10th day of hospitalization.

PV159 / #1454

CORTICAL BLINDNESS FOLLOWING DIGITAL SUBTRACTION ANGIOGRAPHY IN A PATIENT WITH PARAPARESIS DUE TO THORACIC SPINAL DURAL ARTERIOVENOUS FISTULA

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Case Description: A 78-year-old man was admitted for investigation of low back pain and severe paraparesis of sudden onset. The patient described gradual deterioration of his gait and balance impairment the previous 3-4 weeks. Clinical examination revealed severe motor deficit and pallesthesia impairment of both lower limbs.

Clinical Hypothesis: The hypothesis of spinal cord ischemic stroke or abdominal aorta aneurysm took place.

Diagnostic Pathways: Further investigation with computed tomography angiography (CTA) of aorta/peripheral arteries and CT brain were unremarkable. Moreover, magnetic resonance imaging (MRI) of the lumbar spine revealed abnormal spinal cord signal below the sixth thoracic vertebra (T6), compatible with myelopathy in the context of ischaemia or transverse myelitis. Digital subtraction angiography (DSA) was performed which revealed a thoracic spinal dural arteriovenous fistula (SDAVF). The patient immediately after the DSA complained for sudden bilateral blindness, clinically compatible with cortical blindness. The visual impairment resolved completely within three (3) days after conservative management. In addition, the patient was referred for SDAVF embolization that was unsuccessful. Surgical management of the SDAVF by the neurosurgeons was then performed successfully.

Conclusion and Discussion: SDAVFs are very rare obscure entities of diseases, being a diagnostic challenge for an internist. Moreover, few cases of transient cortical blindness (TCB) after contrast administration have been reported in the literature.

PV160 / #1486

PORENCEPHALIC CYST, A RARE CONDITION IN ADULTS

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Background and Aims: A 63 year old male, presented with a syncopal episode at the hospital. The patient had a medical history of postnatal left hemiparesis, with progressive spasticity of the upper left extremity, previous episodes of syncope, and empirical use of anti-epileptic drugs for generalized seizures. Physical examination was unremarkable.

Methods: Porencephalic cyst as cause of Seizures in adulthood.

Results: Lying and standing BP were normal, excluding orthostatic hypotension. A workup comprising an ECG, which demonstrated a sinus bradycardia, TTE and 24-hour Holter monitor were performed with no evidence of cardiac syncope. The suspicion of iatrogenic bradycardia, due to a beta-blocker receptor drug, led to the interruption of the drug with no further episodes. Ischemic and hemorrhagic cerebral acute events were excluded with CT Head. The CT Head revealed a space occupying cerebral lesion. A porencephalic cyst, communicating with the lateral ventricle and lined by gliotic white matter, was diagnosed by MRI of the Brain.

Conclusions: Porencephaly is a rare disorder in adults, usually seen in neonates. It is characterized by degenerative cavities within the brain parenchyma filled with cerebrospinal fluid. The Acquired Porencephalic cyst is more prevalent, resulting, from a stroke, infection, birth trauma and drug or alcohol use during pregnancy, which was the case of this patient. I concluded that given epilepsy is a common presentation, it is important that we consider the porencephalic cyst as one of the differential diagnosis for seizures in adulthood.

Oommen A., Unusual Presentation of porencephalic cyst in an adult. *J Clin Diagn Res.* 2017; 11(2). doi: 10.7860/JCDR/2017/22654.9374

PV161 / #1539

STROKE IN THE COVID-19 ERA - WHAT HAS CHANGED?

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Background and Aims: Stroke remains the leading causes of morbidity and mortality in Europe. We aim to evaluate the impact of the COVID-19 infection on stroke patients admitted to a Medicine Ward (MW) and Stroke Unit (SU) during lockdown period.

Methods: Retrospective cohort study, including patients admitted in SU and MW, from 1st april to 30th april 2020 (state of emergency with mandatory lockdown) and the analogous period for the previous year.

Results: 54 patients were included: 9 in 2019 and 13 in 2020 at the MW; and 18 in 2019 and 14 in 2020 at the SU. The mean age at the SU was 62.5 ± 15.8 years in 2019 and 61.0 ± 16.7 years in 2020, with mean duration of hospitalization of 3.28 ± 1.32 days and 3.34 ± 1.34 days. In 2019, 14 patients had the diagnosis of stroke (12 ischemic, 2 hemorrhagic), 3 transient ischemic attack (TIA) and 1 epilepsy at the SU. In 2020, stroke incidence reduced to 6 (4 ischemic, 2 hemorrhagic), with the remaining being 3 TIAs, 2 delirium, 1 peripheral facial paralysis, 1 Chiari syndrome and 1 epilepsy. At the MW in 2019, patients had a mean age of 76.9 ± 12.8 years, and the diagnosis were: 6 strokes (4 ischemic, 2 hemorrhagic) and 3 TIAs. In 2020, patients had mean age of 77.8 ± 9.7 years and all presented ischemic stroke (n=13). In comparison, 2020 had more stroke cases admitted to the MW, which could be due to older age and a delay in emergency ward admission.

Conclusions: This study demonstrates the population's fear of hospital facilities during lockdown, impairing the access to thrombolysis and thrombectomy thus resulting in worsened outcomes.

PV162 / #1547

COGNITIVE DEFICIT DUE TO AMYLOID SPELLS IN AMYLOID LIGHT-CHAIN AMYLOIDOSIS

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Case Description: A 50-year-old woman presented in the ER with generalized seizures followed by left hypoesthesia and paresis, anterograde amnesia and confabulatory speech. She had a medical history of AL amyloidosis with multisystemic involvement, including cardiomyopathy and peripheral neuropathy. History of epilepsy, drug abuse and recent trauma were ruled out. Clinical examination on site revealed medical stability, apyrexia, global aphasia, left sided weakness grade 2/5 and an important incapacity to form new memories after the event. Motor and sensitive deficits resolved during the inward stay, although cognitive deficits persisted at the time of discharge and were still presented on the last observation (4 months after).

Clinical Hypothesis: Differential diagnosis include stroke, transient ischemic attack, postictal status and toxic-metabolic disturbances.

Diagnostic Pathways: Laboratory results, namely serum electrolytes, glycemia, toxicology screen, alcohol level and blood gases, were unremarkable and brain CT scan excluded major ischemic or hemorrhagic lesions. AngioCT detected only a hypoplastic right vertebral artery. No signs of focal or generalized paroxysmal activity were observed in EEG, except slow theta activity with variable localization and temporal predominance. Brain MRI was not performed due to pacemaker incompatibility.

Conclusion and Discussion: Neurological abnormalities in amyloidosis typically present as peripheral and autonomic neuropathy. More rarely, it can manifest as ischemic stroke or central nervous system disease, which is unusual in AL amyloidosis. The patient's case points to a rare manifestation in AL amyloidosis – Amyloid Spells.

PV163 / #1553

“PERNICIOUS ATAXIA?”

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Case Description: 82-year-old man, with a history of diabetes, hypertension and posterior circulation ischemic stroke without sequelae, presented with a progressive gait disturbance and de novo urinary incontinence. Neurologic examination revealed bilateral dysmetria in finger-to-nose test, ataxic gait and right lateropulsion; deep tendon reflexes were diminished, aquilian reflex was bilaterally abolished; proprioceptive sensitivity was abnormal and Romberg test was positive; muscle strength, tonus, and plantar reflex were normal. There were no causative medications, previous trauma, or alcoholism. SARS-CoV-2 test was negative. Head CT scan excluded acute vascular event or brain tumour. The patient was admitted for investigation.

Clinical Hypothesis: Vascular, immunologic, infectious, paraneoplastic, neurodegenerative and nutritional causes were considered in the differential diagnosis.

Diagnostic Pathways: Blood tests revealed normocytic normochromic anaemia with normal iron studies and vitamin B12 deficiency (66 pg/mL). Immunologic studies highlighted a positive test for parietal cell antibodies. There was no clinical or analytic evidence of active infection, other nutritional deficiencies or other immunological dysregulation. Thyroid function tests were normal. Brain MRI had non recent minor vascular alterations and spinal cord MRI had no signs of myelopathy. The absence of weight loss, B symptoms and abnormalities on the thoraco-abdomino-pelvic CT scan deemed the paraneoplastic syndrome hypothesis further unlikely.

Conclusion and Discussion: In conclusion, pernicious anaemia was considered the most likely diagnosis, with consequent vitamin B12 deficit and clinical ataxia (despite normal spinal cord exam and a negative intrinsic factor antibody). The patient initiated intramuscular vitamin B12 and managed a full recovery.

PV164 / #1556

A CLINICAL CASE OF SUBCLAVIAN STEAL SYNDROME

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Case Description: A man with 69 years old, with a clinical background of heart failure and COPD, presents to the emergency department describing a right occipital headache since the previous 5 days associated with left blurry vision, developing during the same time an inability to walk or hold objects. Regarding physical examination, patient presents with left hemianopsia, left dysmetria and left arm and leg strength of 4 points in MRC scale, with a NIHSS=4. Arterial pressure measurement in left arm was 30-40mmHg lower compared with measurement in the other upper limb.

Clinical Hypothesis: Ischemic stroke in the posterior circulation is the major hypothesis taking into account the history and physical examination, with the difference in upper extremity pressures raising suspicions of a subclavian steal syndrome.

Diagnostic Pathways: Head-CT reveals a right occipital cortical and subcortical hypodensity consistent with subacute ischemic stroke. Transcranial, carotid and vertebral arteries doppler ultrasound showed an inversion of the flow direction in the left vertebral artery and a stenosis of 50-69% in the internal carotid artery. CT-angiography displayed an occlusion of the left subclavian artery from its source up to its vertebral artery branch.

Conclusion and Discussion: Subclavian steal is, in most cases, an asymptomatic phenomenon that represents an appropriate physiological response to proximal artery disease. Although uncommon, the combination of a major inversion of the flow direction and vascular abnormalities in the circle of Willis and its branches, mostly due to atherosclerosis, can precipitate neurologic symptoms caused by vertebrobasilar ischemia.

PV165 / #1561

ISCHEMIC STROKE IN A YOUNG PATIENT WITH PREVIOUS ANTICOAGULATION THERAPY - WHY DOES IT HAPPEN?

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Background and Aims: Oral anticoagulants have proven highly effective in preventing atrial fibrillation (AF). The occurrence of stroke in these cases is unexpected and little is known about the causal mechanisms.

Methods: We report a case of a patient with ischemic stroke, despite being previously anticoagulated.

Results: A 53 year-old businessman, with a history of arterial hypertension, dyslipidemia, active smoking, long-term permanent atrial fibrillation, anticoagulation with apixaban and stage 3b

chronic kidney disease. He was taken to the emergency room with right hemiplegia and aphasia after approximately 24 hours since onset. On admission, he presented with global aphasia, right hemiplegia, right central facial paralysis – NIHSS of 20. A cerebral CT scan documented signs of left frontotemporal infarction, including base nuclei, in the left middle cerebral artery (LMCA) territory. He did not present criteria for intravenous thrombolysis or thrombectomy, having been admitted for etiological study. From the etiological study, the already known AF was evident on electrocardiogram, and the presence of a thin interauricular septum with some mobility, without evident shunt on transthoracic echocardiogram. No other etiological cause was found. Clarification on the anticoagulant dose or therapeutic compliance was not possible in the context of persistent infarction sequelae.

Conclusions: In a majority of patients, stroke occurrence despite chronic anticoagulation appears to be explained by subtherapeutic dosing, poor treatment adherence or non-cardioembolic etiology, and not by ineffectiveness of the anticoagulants.

PV167 / #1591

ACUTE DISSEMINATED ENCEPHALOMYELITIS AND COVID-19: A SYSTEMATIC REVIEW OF CASE-REPORTS AND CASE-SERIES

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Background and Aims: There has been a concerning increase in the prevalence of COVID-19 associated acute disseminated encephalomyelitis. ADEM is a rare autoimmune disorder, often post-viral, primarily attacks children and can potentially lead to long lasting neurological sequelae. As such, accurate diagnosis and timely management is of paramount clinical significance.

Methods: Electronic databases (Medline, Scopus, Embase) were searched from inception until 12th October 2020. Published case-reports/series of proven/presumed ADEM in COVID-19 patients were included.

Results: Fourteen case-reports/series, with a sample size of 18 patients, were included. Mean age was 51.8±14.8 years, with a male to female ratio of 1:1. Most cases reported signs/symptoms of neurological nature prior to respiratory; the most common

being: headaches, paresthesia, movement disorders, positive Babinski's sign and absent Deep tendon reflexes. Hypertension was the most common comorbidity. Eleven patients required intubation. Treatment with high-dose corticosteroids and antibiotics/antivirals resulted in partial recovery of 66.6% of cases. Corticosteroids plus IVIG therapy aided in partial recovery of 27.7% of cases. Plasmapheresis was limited to 4 patients. SARS-CoV2 was reported in CSF samples of 11.1% patients. Partial recovery was seen in 88.8% and in-hospital mortality was reported in 11.1% of patients. Full clinical response was not seen.

Conclusions: Neurological symptoms are the main presentation of COVID-19 which did not correlate with the severity of respiratory symptoms. High incidence of ADEM with hemorrhage (n=3) is striking. A rise in the prevalence of ADEM in adults in contrast to children is also concerning. Brain inflammation is likely caused by immune response to the disease rather than neurotropism.

PV168 / #1603

IMMUNE SIGNATURE IN NEURO-BEHÇET: A PLACE FOR EBI3?

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Background and Aims: Behçet disease (BD) is a chronic systemic inflammatory disorder associated with a cytokine profile disruption and increased nitric oxide levels. It's a vasculitis with mucocutaneous, ocular, arthritic, vascular, and other manifestations. Its neurologic manifestations (neuro-Behçet disease NB) are relatively rare, but they must be thoroughly investigated due to their grave prognosis. In this study we sought to determinate the cytokine profile and nitric oxide production (NO) in patients with neuro-Behçet disease compared to patients with other manifestations (Non neuro-Behçet) and healthy controls (HC).

Methods: We enrolled 21 patients with NB, 56 BD patients without neurological involvement and 42 healthy subjects. Plasma cytokines (IL-1 β , IL-6, sIL-6R, IL-10, IL-32, EBI-3 and IL-37) were measured by ELISA while plasma NO was evaluated by modified Griess. Results were analysed by ANOVA for groups comparison and ROC curves for specificity and sensibility.

Results: ANOVA analysis showed significant differences in IL-6, EBI3, sIL-6R, IL-37 and nitric oxide levels between the HC and the BD patients with or without neurological involvement (P<0.01). EBI3 production was higher in NB patients than the other BD patients (p<0.05) or the HC (p=0.0025). ROC curves between NB patients and HC had an area of 0.8901 \pm 0.07778 (0.7377 to

1.000, p=0.0006) with a cutoff of 53 pg/ml (92.86% specificity and 84.62 sensibility). ROC curves between NB patients and the other BD patients had an area of 0.7324 \pm 0.07766 (0.5802 to 0.8846, p=0.0107).

Conclusions: Our results confirmed the inflammatory character of NB. EBI-3 could be a good marker for Behçet disease neurological manifestation.

PV169 / #1627

STROKE IN IMMUNE THROMBOCYTOPENIC PURPURA: THE ISCHEMIC-HEMORRHAGIC PARADOX

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Background and Aims: Idiopathic thrombocytopenic purpura (ITP) is characterized by a transient or persistent decrease in platelet count (<100,000/L), without concomitant changes in erythrocytes or leukocytes. The ischemic-hemorrhagic paradox of ITP is associated with increased incidence of deep venous thrombosis (DVT), pulmonary thromboembolism, acute myocardial infarction and stroke. Several mechanisms contribute to the prothrombotic state, including platelet microparticles, platelet-leukocyte-monocyte aggregates, anti-endothelial antibodies and reduced levels of disintegrins and metalloproteins of ADAMTS-13 family. Despite the thrombotic tendency, the incidence of hemorrhage, particularly intracranial, is increased, with some studies pointing to twice as many hemorrhagic events.

Methods: Medical records analysis.

Results: A 55-year-old male telephone operator with history of arterial hypertension and popliteal DVT is admitted in the ER complaining of headache (frontal, non-pulsatile, intensity 4/10), dysarthria and decreased right-hand grip with 1-hour of evolution. At admission, he was hypertensive (160/111mmHg) and scored NIHSS 5. He underwent CT scan that identified a left posterolateral-temporal hemorrhagic lesion and analytical control with 41,000platelets/L. MRI identified ischemia in the territory of the left middle-cerebral-artery, reformulating the hypothesis of primary hemorrhagic stroke. ITP was confirmed and corticosteroids were initiated with favorable response, as well as treatment of ischemic stroke with adequate tension control, anti-aggregation and statin.

Conclusions: Despite the increased incidence of ischemic stroke, there are no guidelines for treatment, only the contraindication for thrombolysis at the acute phase. In addition, indications for anti-aggregation or anticoagulation of these patients are scarce. A greater consensus in the therapy and prophylaxis of cardiovascular events is necessary in a population with a unstable thrombotic balance.

PV170 / #1723

RECURRENT CEREBRAL EMBOLIZATION AS AN INITIAL PRESENTATION OF INFECTIVE ENDOCARDITIS

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Background and Aims: Infective endocarditis (IE) is associated with multiorgan complications, in which septic embolization stands out. This occurs mostly when the left heart valves are affected and may result in neurological complications such as embolic stroke or cerebral hemorrhage.

Methods: Case report of a patient admitted to the internal medicine ward.

Results: 62-year-old woman; cardiovascular risk factors and osteoarticular pathology. Admitted to the Emergency Department with disorientation, low back pain radiating to the left lower limb and associated with paresthesia. At admission, apyretic and with temporo-spatial disorientation. Analytically: leukocytosis and neutrophilia, elevation of C-reactive protein and positive procalcitonin. Brain Computed Tomography (CT) scan showed ischemic lesion in the subacute phase with temporo-occipital hemorrhagic suffusion. Collected blood cultures (negative) and started broad spectrum empirical antibiotics. Transthoracic echocardiogram revealed thick vegetation in mitral valve, confirmed by transesophageal echocardiogram. Nuclear Magnetic Resonance of the spine showed L3-S1 spondylodiscitis. Diagnosis of IE with secondary embolization assumed. Favorable initial clinical and analytical response. Control Brain CT scan with image of hematic content in the frontal lobe, assuming new septic embolization. Cardiothoracic Surgery decided to postpone surgical intervention due to high cerebral hemorrhagic risk. Hospitalization complicated by nosocomial pneumonia and respiratory dysfunction, with allocation to the Intensive Care Unit. Unfavorable evolution, which culminated with death.

Conclusions: Diagnosis of IE should be considered in the presence of a cerebral event of presumed embolic etiology. The risk of embolization tends to decrease after the initiation of appropriate antibiotic therapy. Surgical treatment decision must be individualized.



AS04. COVID 19

PV171 / #25

HEPARINIZATION AND COVID-19

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Background and Aims: The late prothrombotic phase of COVID-19 results in an increase in thromboembolic events, especially in risk groups. The prophylaxis of thromboembolic disease is being discussed in action protocols throughout the world, especially in hospitalized patients. Objectives. To demonstrate, through our hospital protocol, the adequacy of heparinization as prevention of thromboembolic disease associated with COVID-19, with an acceptable rate of hemorrhagic complications.

Methods: Retrospective, quasi-experimental study, no control group. Data were obtained through digital medical history. Anonymous database. A total of 183 hospitalized patients were included (9/3/2020-23/5/2020), with a follow-up of two months after discharge.

Results: A total of 183 patients were analyzed, with an average age of 65 years. 90% of the patients had COVID-19 confirmed by RT-PCR/serology, and 10% were treated as COVID-19 given the high clinical-radiological suspicion. Regarding comorbidities, half of the patients were hypertensive and more than a quarter were diabetic. 21% of the patients were antiplatelet prior to admission, and 10% were anticoagulated. Upon admission, heparin was prescribed to practically 100% of the patients, and the regimen was modified during admission in 20% of patients. At discharge, more than half of the patients continued on heparin. 7 patients presented hemorrhagic events and 3 thrombotic events. There were no significant differences in mortality depending on the dosage prescribed.

Conclusions: The adaptation of heparinization through our hospital protocol made it possible for our hospital to present a lower rate of thromboembolic events compared to literature, with an acceptable number of hemorrhagic complications. No significant differences in mortality were evident in relation to heparinization.

PV172 / #27

D-DIMER KINETICS ACCORDING TO THE HEPARIN DOSE IN HOSPITALIZED PATIENTS FOR COVID-19

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Background and Aims: The prophylaxis of thromboembolic disease and D-dimer (DD) values in patients with COVID-19 is being discussed in action protocols throughout the world, especially in hospitalized patients. Objectives. Review of the basal characteristics of our cohort and the relationship between heparinization and DD values in patients hospitalized with COVID-19.

Methods: Retrospective, quasi-experimental study, no control group. Data were obtained through digital medical history. Anonymous database. A total of 183 hospitalized patients were included (9/3/2020-23/5/2020), with a follow-up of two months after discharge.

Results: 183 patients were analyzed, with an average age of 65 years. 21% of the patients were antiplatelet prior to admission, and 10% were anticoagulated. Upon admission, heparin was prescribed to practically 100% of the patients. On admission, 131 patients received prophylactic heparin, 18 intermediate and 2 therapeutic, with DD values of 1980, 7543 and 8934 ng/ml. 20% underwent a change in the heparin dose during admission due to elevated DD. On day 7, 109 patients received prophylactic doses and 15 therapeutic doses, with DD 1092 and 18,595 ng/ml. On day 14, 47 patients received prophylactic and 7 intermediate doses, with DD 1944 and 2,582 ng/ml. The differences were statistically significant between groups receiving different doses of heparin. 7 patients presented hemorrhagic events and 3 thrombotic events.

Conclusions: Patients who received intermediate and therapeutic doses of heparin had significantly higher D-dimers than those who received prophylactic doses. The modification of the heparin regimen based on DD has favored a low rate of thrombotic events and an acceptable rate of hemorrhagic events.

PV173a / #622

GLUCOCORTICOID-USE IN COVID-19 – IS IT A CLASS-EFFECT?

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Background and Aims: The use of glucocorticoids has been suggested in the management of patients with COVID-19 due to their potential anti-inflammatory effects in respiratory complications associated with the disease. Recently the RECOVERY trial has demonstrated that dexamethasone improves mortality in COVID-19 patients receiving simultaneous respiratory support; invasive mechanical ventilation or oxygen alone. In this study we aim to further demonstrate the efficacy of glucocorticoids in the management of COVID-19 patients.

Methods: We retrospectively analysed all patients admitted to our busy district general hospital during the peak of the COVID-19 pandemic, from 15th March to 15th May 2020. Patient data was retrieved from electronic records documented as part of routine clinical care. All patients with swab positive COVID-19 PCR were included and the subclass of glucocorticoid i.e. dexamethasone, hydrocortisone, methylprednisolone or prednisolone. They received during the stay, and mortality outcome for each recorded. Pearson Chi Squared was used to analyse the use of steroids against mortality.

Results: Of all swab positive patients, 72 (15.0%) received glucocorticoids. These patients were prescribed either dexamethasone, hydrocortisone, methylprednisolone or prednisolone. Glucocorticoids improved mortality with 27 patients ($p=0.015$) responding to treatment. Where patients did not receive glucocorticoids, the mortality was 53.3%.

Conclusions: Glucocorticoids reduce mortality and this seems to be class-effect rather than any specific drug. Patients with high oxygen demand should be offered any steroid available to minimise development of respiratory complications in patients hospitalised with COVID-19.

PV173b / #766

OUTPATIENT MANAGEMENT OF MILD TO MODERATE COVID-19 SPARES HOSPITAL CAPACITY

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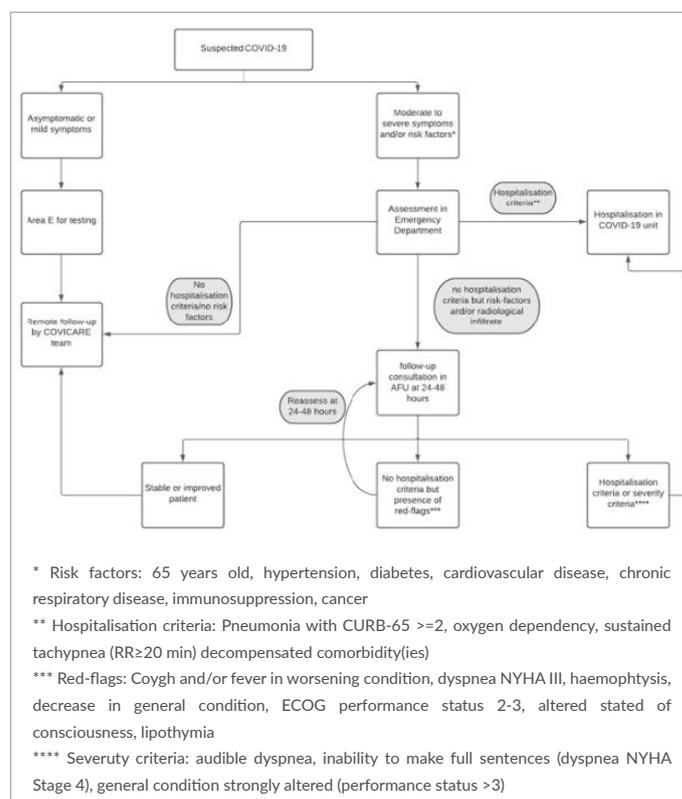
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Background and Aims: Severe acute respiratory coronavirus 2 represents an uncommon burden on health care systems across the world due to its high rate of pneumonia-related hospitalisations. We created and implemented recommendations for outpatient management of moderate SARS-CoV-2 pneumonia in the regional hospitals in Geneva, Switzerland, during the first and second waves.

Methods: Recommendations for outpatient management of pneumonia in our hospital were evaluated since April 2020 (corresponding to the first wave) and reapplied in October 2020 (second wave). Endpoints were secondary hospitalisation, severity of COVID-19 disease and analysis of number of beds and costs averted.

Results: A total of 82 patients with COVID-19-related pneumonia were followed since April 2020. During the first and second waves, five patients (14%) then thirteen (28%) experienced secondary hospitalisation and none died. These novel recommendations for outpatient management resulted in an estimated 256 hospital bed-nights spare and CHF 6600 (Euro 6,000) per capita averted hospitalisation costs over the period.

Conclusions: Guidelines developed for outpatient management of mild to moderate COVID-19 were able to spare hospital capacity without affecting patient outcome. In order to preserve hospital capacity during the next waves in Switzerland and elsewhere, using such recommendations more widely is proposed.



#766 Figure: Recommendations of patient's trajectory with suspected COVID-19. (Legend - Area E: external specific zone for testing; AFU: ambulatory follow-up unit)

PV173c / #1499

ANALYSIS OF SARS-COV-2 INFECTED PATIENTS IN A NURSING HOME WHO WERE REFERRED TO A HOSPITAL: DID WE DO THINGS RIGHT?

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Background and Aims: Our objective was to analyse the medical care provided to patients affected by COVID-19 in a nursing home.

Methods: Ambispective study, only one centre, March-April 2020. Population: affected by COVID-19 in a nursing home. They were classified into 3 clinical categories: P1 (multimorbidity/complexity), P2 (frailty), P3 (final vital phase). The main variables were: symptoms, clinical category, transfers to the hospital. We consider that transfer was not appropriate in those cases that died or were discharged from hospital in <48h.

Results: Total residents 216. COVID-19 infected 44%. Hospital transfers 51%, of which, P1 20%, P2 40%, P3 40%. Transfer was not appropriate in 25%, of which, P3 60% and P2 40%, because in less than 48 hours 90% died and 10% were discharged from hospital. However, 75% of transfers to hospital were indicated, with a favourable evolution in 58% of patients. All of the unsuitable transfers occurred during the first weeks of April, when the residence had not yet been medicalised and assisted by the Andalusian Health System. Symptoms on admission: hypoxemia 87% and fever 55%. Pneumonia in chest X-ray 86%. Hospital treatments: hydroxychloroquine 82%, azithromycin 82%, oxygen therapy 85%, antibiotics 78%, corticoids 45% and fluid therapy 40%.

Conclusions: Approximately half were transferred to hospital, with a cure rate of about 60%. However, 25% of the transfers were inadequate. Questions about the optimisation of health resources, the potential benefit to a hospital centre or limited therapeutic effort, the public or private management of nursing homes... are questions to be raised after these analyses in times of pandemics.

PV174 / #70

FEASIBILITY OF A VIRTUAL CLINIC IN THE MID-WEST ORTHOGERIATRIC POPULATION

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Background and Aims: The COVID-19 pandemic has necessitated a change in medical workflow and resulted in cancellation of the face-to-face orthogeriatric clinic in the Mid-West region. The purpose of this study is to assess the readiness of the

orthogeriatric patients in the Mid-West region to embrace virtual clinic; both video consultation (VC) and telephone consultation (TC) as means of clinic follow-up.

Methods: This study included all orthogeriatric patients who are scheduled to attend the face-to-face orthogeriatric clinic from 10th April 2020 to 10th October 2020. A survey was conducted during admission period which included nine close-ended questions relating to the patient's ability to attend a VC or TC.

Results: 140 patients were included in the study with median age of 81 and female to male ratio of 4:1. The majority of patients do not own a device to facilitate VC with only 37% having smartphones and 36% owning iPads, Android tablets or laptops. More patients are able to avail TC 63% compared to VC 38%. Reason for inability to attend VC was due to inaccessibility to suitable device (40%), cognitive impairment (29%) and expressive dysphasia (1.4%). Nursing home staff or family member can assist VC in 26% of cases.

Conclusions: A significant proportion of orthogeriatric patient population are unable to avail of VC compared to TC, with biggest obstacle being lack of access to suitable device. Effort should be focused in the community to improve the facilities to accommodate accessibility to VC such as providing virtual clinic hubs in the rural areas of Ireland.

PV175 / #77

METILPREDNISOLONE VS DEXAMETASONE IN COVID DISEASE TREATMENT

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Background and Aims: SARS-CoV-2 infection triggers an inflammatory cytokine storm which produces pneumonia and ARDS. To the date, there is no specific treatment for the infection; although some protocols include steroids as a treatment for the hyperimmune phase

Methods: A prospective observational study was made including 97 inpatients in Puerta del Mar Hospital in Cádiz, from March 17th-April 20h. A step protocol treatment based in hydroxychloroquine, steroids and tocilizumab was applied. Steroids regimen were dexametasonone 20mg x3 bolus or metilprednisolone 250 mg x 3 bolus, according to medical criteria. In case of clinical worsening, tocilizumab was added.

Results: 97 patients were selected, 11 patients died (11,3%) and 7 were admitted to the ICU (7,2%). Steroides were used in case of drop of SpO₂/FiO₂ (34 patients) and increase of acute phase reactants (27 patients). Dexametasonone was prescribed in 30 patients and metilprednisople in 29 patients. In the first group, 50% of the patients were diagnosed of ARDS with a SpO₂/FiO₂ <325 and in the second one, this diagnosis was made in 44%. No

differences in mortality were found between both groups; although a greater number of patients in the group of dexametasona needed tocilizumab (n=11, 36.7%). SpO₂/FiO₂ index improved in both groups.

Conclusions: Early use of steroids seems to improve hypoxemia. Methylprednisolone bolus avoid the progression of the disease and the need of tocilizumab comparing to dexametasona.

PV176 / #104

RISK FACTORS FOR ARDS DEVELOPMENT IN SARS-COV-2 PNEUMONIA

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Background and Aims: SARS-CoV-2 infection produce pneumonia which in some patients leads to the development of acute distress respiratory syndrome (ARDS). Some risk factors have been linked with bad prognosis. We conducted a study to determine clinical and analytic data associated with the development of ARDS.

Methods: A prospective observational study was made including 97 inpatients in Puerta del Mar Hospital in Cádiz, from March 17th-April 20th. Patients >18 years old with pneumonia by SARS-CoV-2 were included. The diagnose of ARDS was based in Kigali modifications of Berlin criteria. A bivariate analysis was performed with clinical and analytic data at the first day of admission.

Results: Diabetes and the use of ARA-II before admission were both significantly associated with presenting ARDS at admission. We found that the age was associated with mortality but not with ARDS development. Clinical signs more frequent in the group of ARDS was fever and upper respiratory tract symptoms. The presence of dyspnea was significantly associated with ARDS Also, in the group of ARDS, lymphopenia, neutrofilia were more frequent, and acute reactants phase such RCP, fibrinogen or ferritin were higher than in the other group

Conclusions: We present a cohort with a prevalence of ARDS similar other studies in our country. We don't find association between age and the development of ARDS, but older patients had higher mortality.

PV177 / #110

HASHIMOTO'S THYROIDITIS PRESENTING WITH HOFFMAN'S SYNDROME IN A PATIENT WITH THE CORONAVIRUS DISEASE 2019 (COVID-19): HORMONE REPLACEMENT IN THE TIME OF THE PANDEMIC

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Background and Aims: Hoffmann's syndrome is a very rare and reversible manifestation of hypothyroidism presenting as classic features of hypothyroidism with muscle stiffness, weakness, and pseudohypertrophy.

Methods: Case Report.

Results: A 62-year-old man was admitted to our institution due to dyspnea. He had muscular weakness and recurrent cramps four months prior. He was seen in respiratory distress and was intubated for acute respiratory failure brought about by COVID-19 pneumonia. Both of his calf muscles were hypertrophied. On neurological examination, he had mild proximal lower limb muscle weakness. Inflammatory markers associated with COVID-19 were elevated. He was given tocilizumab, convalescent plasma therapy, and hemoperfusion. Thyroid function tests were consistent with primary hypothyroidism from Hashimoto's thyroiditis: TSH (22.6712 UIU/mL; NV: 0.35-4.94 UIU/mL), fT3 (<2.30 PMOL/L; NV: 2.89-4.88 PMOL/L), fT4 (<5.15 PMOL/L; NV: 9.01-19.05 PMOL/L), anti-Tg Ab (1810.3 IU/mL; NV: <50 IU/mL) and Anti-TPO Ab (2610.4 IU/mL; NV: <100 IU/mL); muscle enzymes were noted to be elevated also: CK-Total (2589 U/L; NV: 55-170 U/L) and CK-MB (85.7 U/L; NV: 0-16 U/L). This is consistent with Hoffman's syndrome. He was supposed to start hormone replacement therapy. However, he developed ileus. To circumvent this roadblock, levothyroxine was given as an enema via the rectal route at 300 mcg once daily (approximately twice the oral dose). Upon initiation of hormone replacement, his sensorium, hemodynamic parameters, and bowel movement improved. Unfortunately, he went into sudden cardiac arrest and expired after the 11th hospital day.

Conclusions: COVID-19 infection could lead to exacerbations of pre-existing conditions such as Hashimoto's Thyroiditis (in this case, manifesting with Hoffman's syndrome). Hormone replacement is still the treatment of choice. Concomitant COVID-19 infection and treatment is not a contraindication to delay hormone replacement.

PV178 / #164

EOSINOPENIA IS A RELIABLE MARKER OF SEVERE DISEASE AND UNFAVORABLE OUTCOME IN PATIENTS WITH COVID-19 PNEUMONIA

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Background and Aims: Viral pneumonia is the most relevant clinical presentation of COVID-19 which may lead to severe acute respiratory syndrome and even death. Eosinopenia was often noticed in patients with COVID-19 pneumonia but its role is poorly investigated. The aim of the present study is to investigate the characteristics and clinical outcomes of patients with COVID-19 pneumonia and eosinopenia.

Methods: We revised records of consecutive patients with COVID-19 pneumonia admitted in our ER-COVID-19 area in order to compare clinical characteristics and outcomes of patients with and without eosinopenia. We considered the following clinical outcomes: 4 weeks survival; need for intensive respiratory support and hospital discharge.

Results: Out of first 107 consecutive patients with pneumonia and a positive COVID-19 nasal-pharyngeal swab, 75 patients showed undetectable eosinophil count (absolute eosinopenia). At 4 weeks, 38 patients (38.4%) had required intensive respiratory treatment, 25 (23.4%) deceased and 42 (39.2%) were discharged. Compared to patients without absolute eosinopenia, patients with absolute eosinopenia showed higher need of intensive respiratory treatment (49.3% vs. 13.3%, $p < .001$), higher mortality (30.6% vs. 6.2%, $p .006$) and lower rate of hospital discharge (28% vs. 65.6%, $p < .001$). Binary logistic regression analyses including neutrophil, lymphocyte, eosinophil, basophil and monocyte counts showed that absolute eosinopenia was an independent factor associated with 4 weeks mortality, need for intensive respiratory support and hospital discharge.

Conclusions: Absolute eosinopenia is associated with clinical outcomes in patients with COVID-19 pneumonia and might be used as a marker to discriminate patients with unfavorable prognosis.

PV179 / #176

CLINICAL DATA ABOUT SARS-COV-2 PANDEMIC IN OUR HOSPITAL

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Background and Aims: Since the first case of COVID-19 disease in Spain, the infection has been spread exponentially to other parts of the country. We have collected the clinical, radiological and analytics data of our patients in order to know the burden of the disease and to compare with other hospitals in the region

Methods: A prospective observational study was made including 97 inpatients in Puerta del Mar Hospital in Cádiz, from March 17th-April 20th. Clinical, analytic and epidemiologic data were collected

Results: In our population, 97 patients were selected, 11 patients died (11,3%) and 7 were admitted to the ICU (7,2%). The median age was 69 years old and 16% of patients did not have any comorbidity. High Blood pressure was the more frequent disease before admission and fever was the symptom more frequent

Conclusions: Similar to other studies we found that fever, respiratory tract symptoms and diarrhoea were the more frequent symptom in SARS-CoV-2 infection. However, we found a lower mortality in our population comparing to other studies in our own Country.

PV180 / #191

BURNOUT AND RESILIENCE AMONG INTERNAL MEDICINE PHYSICIANS IN-TRAINING IN A TERTIARY GOVERNMENT HOSPITAL IN MANILA, PHILIPPINES DURING THE COVID-19 PANDEMIC: AN EXPLORATORY MIXED METHOD STUDY

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Background and Aims: This study measured burnout and resilience among Internal Medicine physician trainees in a tertiary government hospital in Manila, Philippines during the COVID-19 pandemic. It explored their sources of stress and coping mechanisms, and determined the predictive factors for burnout.

Methods: An online cross-sectional survey among all Internal Medicine physician trainees was done to measure burnout and resilience using the Maslach Burnout Index Human Services Survey for Medical Personnel and the Connor-Davidson Resiliency questionnaires respectively. Sources of stress and coping mechanisms were identified through online focus group discussions and interviews until thematic saturation was satisfied. Multiple linear regression was done to explore the predictors for burnout.

Results: Out of 146 respondents (74% response rate), four percent of physician trainees fit the burnout profile, 40% were

engaged while the majority had intermediate profiles. The mean resilience score was 72.9 (SD 12.4). Resilience was a significant negative predictor for burnout (Beta Coefficient= -0.73, $p < 0.001$). Its protective effect decreases in those with increased exposure to patient deaths (Beta Coefficient= 6.767, $p < 0.05$). The trainees' major sources of stress included navigating the new normal and having competing demands for professional growth. Their main coping mechanisms included flexibility, maintaining social relationships, and self-care.

Conclusions: Although the prevalence of burnout was low among Internal Medicine physician trainees, the majority exhibited at-risk burnout profiles a few months into the COVID-19 pandemic. Resilience was found to be high among the physician trainees and was a significant negative predictor for burnout.

PV181 / #204

EXPERIENCES AND PERCEPTION OF HEALTHCARE PROVIDERS WORKING DURING COVID-19 PANDEMIC IN NEPAL: A CROSS-SECTIONAL STUDY

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Background and Aims: Healthcare providers have been facing great challenges during the COVID-19 pandemic. With this study, we attempted to assess the experiences and perceptions of the healthcare providers and explore ethical/practical dilemmas experienced.

Methods: A web-based cross-sectional study was conducted among 252 healthcare providers working forefront during the COVID-19 pandemic using purposive sampling method via a set of a closed-ended online questionnaire and analyzed using descriptive statistics. The ethical approval was taken from the Nepal Health Research Council (Ref: 347/2020) before the start of the study.

Results: The median age of the respondents was 27 years. Most of them were doctors (61.5%). Only twelve percent had past experience of working in an outbreak. Fifty-two percent of them felt that they were inadequately trained to serve during this crisis. Forty-six percent found it difficult to serve patients with other diseases. Fifty percent were stigmatized during this pandemic, the majority (64.6%) from their neighbors. Satisfactory perception was observed in only 16.3% of the participants working during the pandemic. Though both genders perceived high dissatisfaction, more percentage of females (88.6%) were to say so as compared to males (79.7%). Similarly, those who were stigmatized during this pandemic showed higher dissatisfaction (86.6%) as compared to those who were not (80.8%).

Conclusions: This study revealed that frontline healthcare providers perceive high dissatisfaction and face detrimental practical/ethical dilemmas working during the pandemic that can seriously jeopardize quality healthcare delivery.

PV182 / #233

THE USAGE OF HIGH-FLOW NASAL OXYGEN (HFNO) FOR PATIENTS WITH COVID-19 OUTSIDE INTENSIVE CARE UNITS

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Background and Aims: The usage of high-flow nasal oxygen (HFNO) has been traditionally located in intensive care units (ICU). As the COVID-19 pandemic continues to be a challenge, health care providers are trying to manage space in the ICU. We tried to study the usage of HFNO in patients with moderate to severe ARDS related to COVID-19 outside the ICU, and its benefits both for patients and to offload the ICU.

Methods: We started a project to use HFNO at Södersjukhuset outside the ICU. Patients with COVID-19 who needed HFNO were observed with frequent controls to assess the need of ICU in case of deterioration. The aim was mainly to offload the ICU.

Results: We studied 41 patients who were admitted to get HFNO treatment either as primarily treatment (Step-Up) or after stabilizing in the ICU (Step-Down). We studied the characteristics of patients and the result of the treatment, and compared to a subgroup of patients who did not survive this treatment. Each patient had on average 5,6 days with HFNO. 55% were discharged home or to geriatric rehabilitation. 10% avoided ICU totally and 15% who simultaneously had a DNR orders survived and moved to geriatric rehabilitation. The project saved totally 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 ICU, and offering additional advantages as waken proning and fewer complications than ICU care. It requires however frequent controls as deterioration is recurrent.

PV183 / #239

NON-INVASIVE LOW PEEP VERSUS HIGH PEEP VENTILATION STRATEGY IN SEVERE COVID-19 PATIENTS: AN OBSERVATIONAL CASE - CONTROL STUDY

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Background and Aims: Since the best ventilation strategy of severe COVID-19 patients is still uncertain, we conducted a retrospective case-control study to evaluate the outcome of severe COVID-19 patients treated in the emergency department (ED) with a non-invasive low positive end-expiratory pressure (PEEP) and early weaning strategy and compared it to a non-invasive high-PEEP strategy.

Methods: Primary outcome was a composite outcome of ETI rate and/or in-hospital mortality at 7 and 28 days from admission to the ED. We compared 24 severe COVID-19 patients treated with non-invasive low-PEEP to 26 sex and age-matched controls.

Results: Main demographic characteristics, p/F ratio, creatinine, procalcitonine, C-reactive protein, d-dimer levels, APACHE II score and NEWS were comparable at admission. The case group received more frequently antivirals (mainly darunavir/cobicistat) and hydroxychloroquine ($p=0.004$ and 0.011 respectively). As to primary outcome, at 7 days, 13 cases versus 20 controls experienced ETI or died (p not significant). In the remaining population, at 28 days, 2 out of 18 low-PEEP cases died as opposed to 11 out of 21 high-PEEP controls (11.1% vs 52.4%, $p=0.008$; OR 0.11 CI95% 0.02–0.62). Our analysis of Kaplan-Meier curves confirmed the statistical significance of higher mortality and ETI rate in controls.

Conclusions: Although larger trials are needed to confirm our results, this retrospective case-control trial provides a modest evidence that a non-invasive low-PEEP ventilation strategy could reduce ETI rate and mortality at 28 days compared to a high-PEEP approach and be a game changer in the ventilation strategy of COVID-19 patients.

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NEUROLOGIC CHARACTERISTICS IN CORONAVIRUS DISEASE 2019 (COVID-19): A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background and Aims: Coronavirus disease 2019 (COVID-19) is a newly emerging infectious disease that has caused a global pandemic. The presenting symptoms are mainly respiratory symptom, yet studies have reported nervous system involvement in the disease. An comprehend review of these studies are required to understanding the neurologic characteristic of the disease and help physicians with early diagnosis and management.

Methods: Authors conducted a literature search through PubMed from January 1st, 2020 to April 8th, 2020. Furthermore, the authors added additional sources by reviewing related references. Studies presenting the neurologic features of COVID-19 patients in their data were included. Case reports and series were also included in this review. Selected studies were included in the meta-analysis of proportion and the heterogeneity test.

Results: From 280 identified studies, 33 were eligible, with 7,559 participants included. Most of the included studies were from China (29 [88%]). Muscle injury or myalgia was the most common (19.2%, 95%CI 15.4-23.2%) neurologic symptom of COVID-19, followed by headache (10.9%, 95%CI 8.62-13.51%); dizziness (8.7%, 95%CI 5.02-13.43%); nausea with or without vomiting (4.6%, 95%CI 3.17-6.27%); concurrent cerebrovascular disease (4.4%, 95%CI 1.92-7.91%); and impaired consciousness (3.8%, 95%CI 0.16-12.04%). Underlying cerebrovascular disease was found in 8.5% (95%CI 4.5-13.5%) of the studies.

Conclusions: Neurologic findings vary from non-specific to specific symptoms in COVID-19 patients. Some severe symptoms or diseases can present in the later stage of the disease. Physicians should be aware of the presence of neurologic signs and symptoms as a chief complaint of COVID-19, in order to improve management and prevent a worsening outcome of the patients

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FACTORS ASSOCIATED WITH SARS-COV-2 INFECTION IN PATIENTS ATTENDING AN ACUTE HOSPITAL AMBULATORY ASSESSMENT UNIT

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Background and Aims: Limited data exists to define presenting characteristics and outcomes of patients referred for assessment for COVID-19 in Northern Europe. This study aimed to examine the population of patients referred and compare SARS-CoV-2 'detected' and 'non-detectable' patients.

Methods: This observational study was conducted in a model 4 tertiary referral centre in Ireland. All patients referred for SARS-CoV-2 assessment over a 4 week period were included. Patient demographics, presenting symptoms, comorbidities, medications and outcomes (including length of stay, discharge, and mortality) were collected.

Results: 279 patients were assessed. These patients were mainly Caucasian (96.7%) with a female predominance (62%) and median age of 50 (SD 16.9). 19 (6.8%) patients had SARS-CoV-2 detected. Dysgeusia was associated with a 16-fold increased prediction of SARS-CoV-2 positivity ($p=0.001$; OR 16.8; 95% CI 3.82-73.84). Thirteen patients with SARS-CoV-2 detected (68.4%) were admitted, in contrast with 30.3% (99/326) of patients with SARS-CoV-2 non-detectable ($p=0.001$). Female patients were more likely to be admitted ($p=0.01$) as were current and ex-smokers ($p=0.05$). Patients with pre-existing ischaemic heart disease, cardiac failure and hypertension were significantly more likely to be admitted ($p=0.04$, $p=0.003$, $p=0.034$).

Conclusions: We describe olfactory disturbance and fever as main presenting features in mild-to-moderate SARS-CoV-2 infection. These patients are more likely to be hospitalised with increased length of stay; however they make up a minority of the patients assessed. 'Non-detectable' patients remain likely to require prolonged hospitalisation. Knowledge of predictors of hospitalisation in a 'non-detectable' cohort will aid future planning and discussion of patient assessment in a SARS-CoV-2 era.

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BIOPSYCHOSOCIAL IMPACTS OF THE COVID-19 PANDEMIC IN A COMMUNITY IN RIO DE JANEIRO, BRAZIL

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Background and Aims: COVID-19 first hit Rio de Janeiro in March 2020 and a partial lockdown started. Free medical consults in primary health care (PHC) offered by a medical school to a low income community in Rio de Janeiro-Brazil were suspended. Majority of patients received medication for chronic noncommunicable diseases from Brazilian government via the Unified Health System. There was concern about the population's lack of assistance.

Methods: Consultations returned in July 2020, and questionnaire was applied to assess the effects of quarantine on this adult population. Continuous variables were expressed by mean± standard deviation and categorical variables by frequencies using Microsoft Excel.

Results: Among 82 participants (59±11 years old), 86% had hypertension and 40% diabetes. Even though mean time between consults was 8 months, 73% of the patients claimed they took all prescribed medicine regularly. The fact could be verified by the low alleged incidence of arterial pressure above 140x90 mmHg (28%) and diabetics decompensation like hyperglycaemia (>180mg/dL) and hypoglycaemia (<50mg/dL), being 7% and 4% respectively. Psychological impact was evaluated by the incidence of anxiety or depressed feelings, those being present for 63% and 47% respectively, the economic impact was present, with 55% respondents referring decrease in family income and 30% reporting a household member losing a job.

Conclusions: The results regarding income and work were expected, but the high adherence and low incidence of decompensation of chronic illnesses could be explained by the universality of PHC access in Brazil, teaching health-care service integration and community empowerment.

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THE CHALLENGES AND SUCCESSES OF OPERATING MOBILE CLINICS IN KENYA DURING THE COVID-19 PANDEMIC: A CASE STUDY OF COMMUNITIES HEALTH AFRICA TRUST (CHAT)

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Background and Aims: The outbreak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the ensuing global

pandemic of COVID-19 has created an unprecedented challenge for this generation of healthcare workers. Using Communities Health Africa Trust, a Kenyan health charity that specialises in family planning and community health services in rural Northern Kenya, this article aims to discover the challenges faced during the COVID-19 pandemic and illicit lessons for the future.

Methods: CHAT utilises mobile health interventions to deliver family planning and community health services to underserved and often remote communities in over 10 counties in Kenya. The charity practices a Population, Health and Environment (PHE) approach which aims to guide community development and environmental conservation. Utilising a series of interviews with the CHAT team we will discover lessons learnt from the COVID-19 pandemic.

Results: The initial response to COVID-19 in Kenya. The applicability of lessons learnt during the HIV pandemic. How to engage rural communities and to create practical solutions for resource limited areas. The social and economic consequences of COVID-19 government policies on health in these communities. Affect of COVID-19 policies on family and sexual health.

Conclusions: CHAT offers us an excellent insight into the benefit of experience in previous viral pandemics for rapid implementation of COVID-19 interventions. They also illustrate the value of training healthcare workers from local communities to aide collaboration and health education. This report has also identified observations of the societal and economic effects of COVID-19 interventions in Kenya that could be of interest for future areas of study.

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PROGNOSTIC VALUE OF THE CHARLSON INDEX IN PATIENTS HOSPITALIZED WITH POSITIVE PCR FOR COVID-19

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Background and Aims: The objective of this study was to quantify the Charlson index and its prognostic value in the mortality of our patients.

Methods: Retrospective case-series study of patients hospitalized at the Hospital Clínico San Carlos, with positive PCR test for COVID-19. This patients were introduced sequentially from the 1st to the 27th of March, 2020. A score of "2" was decided as the demarcation line between low and high probability of death for the Charlson index. Analysis was performed using the SPSS 26 package.

Results: of a total of 324 subjects analyzed the value of the Charlson index was collected in 291 of those patients, 173 (62.3%) had an index lower than 2 and 118 (37.8%) higher. In our analysis, a statistically significant relationship was found between a Charlson index greater than 2 and the variables of mortality (38.5% vs 61.5%, p <0.01), higher degree of dependence (35% vs 65%, p <0.01) and lower use of Lopinavir-Ritonavir (65.7%

vs 34.3%, $p < 0.05$). No relationship was found regarding to the variables of sex or a higher / lower use of systemic corticosteroids or Hydroxychloroquine. The logistic regression carried out shows that the Charlson index is significantly related to the mortality regardless of sex and the degree of dependence ($p < 0.05$).

Conclusions: A Charlson index greater than 2 is significantly associated with higher mortality as well as higher degree of dependence and less use of Lopinavir-Ritonavir in our sample of patients. Studies with a larger sample are necessary to evaluate the prognostic value of this index.

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COVID-19 INFECTION CAUSING GUILLAIN-BARRÉ SYNDROME: A CASE REPORT AND LITERATURE REVIEW

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Background and Aims: Neurological symptoms are estimated to affect one third of patients infected with COVID-19 thereby suggesting nervous system involvement by the virus. Guillain Barre Syndrome (GBS) is a neurological autoimmune condition often occurring after an infection, usually respiratory infections or gastroenteritis. Several recent reports have recognised GBS as a complication of COVID-19 which could lead to sudden deterioration of patients.

Methods: We describe a case of a 78-year-old male who presented with decreased mobility, was diagnosed with COVID-19 and GBS, and treated with intravenous immunoglobulins (IVIG). We reviewed the literature for case reports and to summarise findings.

Results: A 78-year-old man presented complaining of weakness beginning in his lower limbs and arms. He tested positive for COVID-19 on admission. On examination, he had reduced power in his upper and lower limbs, and was areflexic. Cerebrospinal fluid sample showed an elevated protein of 1.0g, and he was diagnosed with GBS. He was commenced on Enoxaparin for pulmonary embolus (PE) prophylaxis, and a 5-day course of IVIG therapy. On the fourth day of admission, he had a sudden cardiac arrest and died. The primary cause of death was recorded as pulmonary embolism. Certain studies described this complication, reporting approximately 11.3% patients receiving IVIG with a thromboembolic event over a 2-year period.

Conclusions: GBS is increasingly recognised as a complication of COVID-19. COVID-19 infection and IVIG both carry increased risk for PE. Physicians should consider use of full anticoagulation for a short period of time rather than prophylaxis to reduce the incidence of thromboembolic complications.

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MAGNETIC RESSONANCE IMAGING IN COVID-19 ANOSMIA: A CASE-REPORT

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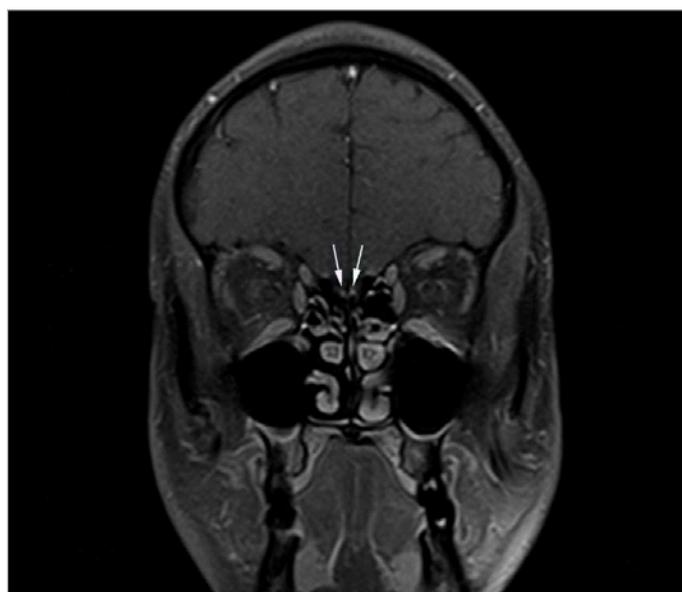
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Background and Aims: COVID-19 is the disease caused by SARS-CoV-2 virus and typically presents with fever, cough, fatigue, headache and dyspnea. Anosmia or olfactory dysfunction (OD) is another symptom that is frequent related. A recent meta-analysis identified 45% of COVID-19 patients had OD, but the underlying pathogenic mechanism is still unclear^[1].

Methods: We present a clinical case of a COVID-19 patient with anosmia, who underwent brain MRI.

Results: 28-year-old male, without relevant past medical history, diagnosed with COVID-19, presented to the hospital with complaints of dizziness, headache and anosmia. Headache was frontal and retroocular, of low intensity. Denied vision changes, other neurological symptoms, nausea, vomiting or other complaints. At physical examination, cardiac and pulmonary auscultation were normal and abdomen exam was unremarkable. Neurological examination showed no impairment in cranial nerves function, except for anosmia, with normal strength, sensitivity and reflexes and without meningeal signs or gait alterations. Remaining exam was normal. From the complementary study carried out, no abnormalities were found on blood tests or chest telerradiography. Brain MRI showed "a postcontrast enhancement of both olfactory bulbs" in coronal fat-suppressed T1-weighted-image, probably caused by the SARS-CoV-2 infection. After 9 days of clinical surveillance patient reported resolution of symptoms.



#388 Figure: After 9 days of clinical surveillance patient reported resolution of symptoms.

Conclusions: There is limited literature on olfactory bulb imaging in COVID-19 OD. Additional imaging reports (namely with MRI) and longitudinal imaging studies are needed in order to understand the pathophysiological mechanism behind OD caused by SARS-CoV-2.

^[1]Hoang MP et al. Olfactory and gustatory dysfunctions in COVID-19 patient: a systematic review and meta analysis. *Asian Pac J Allergy Immunol* 2020; 38(3):162-169. doi: 10.12932/AP-210520-0853.

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RADIOLOGICAL DIAGNOSIS OF CHANGES IN THE COURSE OF SARS-COV-2 INFECTION

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Background and Aims: COVID-19 is a disease caused by SARS-CoV-2 coronavirus. In December 2019 the virus was first noticed in Wuhan, China, from where it spread throughout the world. Clinical symptoms of the infection are fever, non-productive cough and shortness of breath. The course of disease is mild in most cases, however it is associated with higher risk of severe complications in older patients suffering from chronic comorbidities. It was also noted that in patients with COVID-19 the probability of stroke increases more than in the other viral infectious diseases. The aim of this review is to emphasize the role of imaging methods in COVID-19 diagnosis and management.

Methods: Review of the latest scientific reports in order to summarize the current knowledge.

Results: CT abnormalities appear after symptom onset and progress until 6-11 day of disease. Most of the lesions are localized in peripheral lungs and occur bilateral. About 82% of the patients with COVID-19 have at least two lobes involved. The typical initial CT features include multifocal ground-glass opacification with or without patchy consolidations. Ultrasound examination is used for real-time assessment of changes in patients with respiratory failure. Most of changes are localized in subpleural region and are characterized by the presence of discontinuous pleural line, subpleural consolidation, a large number of B-lines. CT and ultrasound images correspond to the stage of the disease.

Conclusions: Chest CT plays important role in COVID-19 diagnosing process. It allows indication of the progression or recovery. Ultrasound examination can be a reference point for clinical diagnosis and treatment course.

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ABNORMAL LIVER FUNCTION TESTS IN PATIENTS WITH COVID-19

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Background and Aims: Background: Abnormal liver function tests (LFTs) are reported frequently in patients with coronavirus disease 2019 (COVID-19). The liver damage in COVID-19 is explained by different causes: direct cytopathic effect, immune inflammation, drug-induced liver damage. Aim: To evaluate features of changes of LFTs in COVID-19.

Methods: We retrospectively included 6 patients with confirmed COVID-19 and abnormal LFTs. The average age was 56.3±6.4. All patients were with COVID-19 associated pneumonia. Lung damage involvement according to lungs computed tomography ranged from 5% to 35%. All patients had in clinical presentation of COVID-19 febrile fever (38.2±0.1), myalgias, increased CRP levels (21.8±6.8). All patients were without respiratory insufficiency.

Results: The debut of liver cytolysis was on average 14.8±2.9 sick days of COVID-19 (4-23th). ALT levels elevated on average 4,25±0,98 times (2.5-6.5). An increase in AST correlated with changes in ALT, however, it was less severe – 2,83±0,54 times (1.5-5). De Ritis ratio was less than 0.6 – 0,44±0,06. All patients had an increase in GGT - 4,82±1,74 (2-7.5). 1.7 times ALP was in one patient only. TBIL were normal in all patients. All patients had not signs of hepatocellular insufficiency - the prothrombin indices, total protein were normal. Patients were treated: favipiravir (2), glucocorticoids (6), tocilizumab (1), azithromycin (1), amoxicillin with clavulanic acid (1), enoxaparin (6). Patients were prescribed ademetionine and ursodeoxycholic acid. We continue to observe these patients in dynamics.

Conclusions: Abnormal LFTs in COVID-19 were characterized by increase in ALT, AST, GGT and decreased de Ritis ratio. TBIL, AIP, prothrombin index were normal.

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CORRECTION OF HIGH FERRITIN BLOOD LEVEL WITH NATURAL POLYPEPTIDE COMPLEX HUMAN PLACENTA HYDROLYZATE (HPH) IN COVID-19 PATIENTS

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Background and Aims: There are a lot of reasons for liver damage in COVID-19: electrolite virus expression ACE2 receptors in hepatocytes a. cholangiocytes, circular hypoxia, proinflammatory cytokines, drugs, preliminary liver diseases, comorbidities ect. Hyperferritinemia in COVID-19 patients associates with severe course. According to international and proprial data HPH decreases high ferritin level in pts with NAFLD a. hemochromatosis.

Methods: In 04-05.2020 14 pts with COVID-19 pneumonia were treated with standart temporary official guidelines as antiviral a. anti-inflammatory drugs, antibiotics, detoxication, oxygen insufflation a. so on + i.v. HPH for 7-14 d.

Results: All of them were restored and achieved a stable remission within 8-15 days and were discharged with a negative test for SARS-CoV-2 for further rehabilitation at their places of residence. There was marked significant positive clinical dynamics as decreasing blood ferritin level a. the area of lung damage (according to CT data), increasing blood oxygenation to the normal range, the percentage of lymphocytes, normalization of liver dysfunction markers (AST, ALT), normalization of creatinine and systolic blood pressure (all $P < 0.05$). Other 14 pts (control group) with the same standart therapy had no such high effect for nosocomial observation a. 3 of them had died unfortunately.

Conclusions: HPH polypeptide drug, promoting the regeneration of liver tissue, lungs and other organs, may be included in the recovery of patients' health programs, particularly those who have suffered new Coronavirus infection COVID-19 in the background of hyperferritinemia.

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IMPACT OF GENDER ON PATIENTS HOSPITALIZED FOR SARS-COV-2 INFECTION: A PROSPECTIVE OBSERVATIONAL STUDY

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Background and Aims: It has been speculated that gender could affect the natural history of SARS-CoV-2 infection. We aimed to assess the impact of gender on disease severity at hospital admission and mortality of COVID-19 hospitalized patients.

Methods: This prospective cohort study of the correlates of the risk of death in COVID-19 patients was conducted in two COVID-19 dedicated hospitals in Milan, Italy. The clinical characteristics of all the COVID-19 patients hospitalised between 21 February and 31 May 2020 were recorded upon admission (censored as of 31 July 2020). Multivariable logistic models were used to assess the factors independently associated with disease severity at hospital admission (critically ill: invasive or non-invasive ventilation) and the risk of death.

Results: Five-hundred and twenty patients were hospitalized of whom 349 (67%) were males with a median age 61 (IQR 50-72). A higher proportion of males presented critically ill when compared to females (30.1% vs 18.7%, $p < 0.046$). During the time of observation death occurred in 86 (24.6%) males and 27 (15.8%) females ($p = 0.024$). In multivariable analysis factors associate with a critical disease at hospital admission were time from symptoms onset [AOR 1.01 (1.01-1.08)], flu shot vaccination [AOR 0.47 (0.24-0.94)]. Age, obesity, disease severity at hospital admission and renal function resulted independently associate with death whereas gender was not.

Conclusions: A higher proportion of males required invasive or non-invasive ventilation at hospital admission. Age, disease severity at hospital admission and obesity seem to have a greater impact on death probability than gender.

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IMPACT OF THE COVID-19 LOCKDOWN ON THE MANAGEMENT AND CONTROL OF PATIENTS WITH GCA

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Background and Aims: Giant cell arteritis (GCA) is a multifactorial disease whose pathogenesis is not yet fully understood. Despite everything, there is a dynamic relationship between genetic predispositions and environmental factors via epigenetic modifications involved in its onset and evolution. We decided to study the impact of the lifestyle change and the increase in psychosocial stress due to the lockdown and media pressure caused by the COVID-19 epidemic on the natural evolution of patients with GCA.

Methods: We carried out a cross-sectional phone survey using a standardized questionnaire, after one month of lockdown, in 79 patients with GCA (n=79) living at home and followed at the Dijon University Hospital since January 2018.

Results: The results obtained show a significant increase in psychosocial stress in 32% of patients (n=24) and sedentarization with reduction in physical activity in 50% (n=39) of patients associated with a gain of 2 kg or more in 16 % (n=12). Concerning the GCA follow-up, 25% of the biological follow-up test were canceled and only a quarter of consultations were maintained in person. In contrast, the patients showed strong therapeutic adherence, in particular to glucocorticoids. However, 9.5% of patients (n=7) reported signs suggesting a flare of GCA after a month of confinement while 5 of them were still treated.

Conclusions: Our study suggests that a significant lifestyle change associated with psychosocial stress was responsible for an unusual rate of relapse in this representative sample of home-confined GCA patients.

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COEXISTENCE OF CRIMEAN CONGO HEMORRHAGIC FEVER AND COVID-19 : IS MORTALITY INEVITABLE?

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Background and Aims: In this case, the co-existence of Crimean-Congo Hemorrhagic Fever (CCHF) and COVID-19 was presented and it was aimed to take attention to increasement in mortality.

Methods: Clinical and laboratory data of the patient who was followed up and treated in the COVID ICU of SB  DıŐkapı Yildirim Beyazit Training and Research Hospital were retrospectively analyzed.

Results: A 77-year-old female patient was referred to our center with the complaints of nausea, vomiting and diarrhea for two days. She had petechiae and ecchymoses all over her body. Upon arrival her vital signs were BT: 36.3 , TA: 160/100 mmHg, RR: 20/min, HR: 87 beats/min and SpO₂: 92%. Laboratory tests: WBC: 26.4x10³/ L, Hg: 8.1gr/dl, Hct: 23.8%, Platelet: 7x10³/ L, Neutrophil: 24.8 10³/ L, Lymphocyte: 0.94x10³/ L, Urea: 197 mg/dl, Creatinine: 4.1 mg/dl, CRP: 132.4 mg/L, procalcitonin: 0.98  g/l, INR: 1.15, Aptt: 20.2 sec, PT: 10.5 sec. Direct coombs (AHG): +4, direct coombs were +3. Due to her residence, her entire body was examined for the tick with the pre-diagnosis of CCHF, no tick was found. Although CCHF PCR was negative, CCHF IgM (IFA) was positive. Replacement was performed for low platelet. There were bilateral, peripheral, diffuse nonhomogeneous density increases in the chest radiography taken on the 3rd day due to fever of 38.8 C and shortness of breath. COVID-19 RT-PCR swab was positive. Favipiravir, piperacillin-tazobactam and levofloxacin treatments were started. 400 mg Tocilizumab IV treatment was given when IL-6 was >1000 pg/ml. PaO₂/FIO₂ was 80 mmHg, methylprednisolone 2x40 mg iv treatment was added. HFNO was started with 60 l/min flow and 80% FIO₂. The patient was intubated electively on the 5th day of hospitalization. Patient died on the 7th day of ICU admission.

Conclusions: CCHF can cause cytokine release syndrome similar to COVID-19 and can increase the mortality of cases.

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PRAGMATIC, OPEN-LABEL, SINGLE-CENTER, RANDOMIZED, PHASE II CLINICAL TRIAL TO EVALUATE THE EFFICACY AND SAFETY OF METHYLPREDNISOLONE AND TACROLIMUS IN PATIENTS WITH COVID-19 SEVERE PNEUMONIA

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Background and Aims: Some COVID-19 patients evolve to systemic hyperinflammatory syndrome triggered by both the coronavirus infection and the host-immune response. The use of immunomodulatory agents has been suggested. Our working hypothesis is that methylprednisolone pulses and tacrolimus may be an effective and safety drug combination for treating severe COVID-19 patients.

Methods: TACROVID is a randomized, open-label, single-center, phase II trial to evaluate the efficacy and safety of methylprednisolone pulses and tacrolimus plus standard of care (SoC) versus SoC alone, in COVID-19 patients with lung injury and systemic hyperinflammatory response. The study design was approved by the institutional ethics committee and health authorities (NCT04341038 / EudraCT: 2020-001445-39)

Results: Patients are randomly assigned (1:1) to one of two arms (42 patients in each group). We recruited 55 patients. The primary aim is to assess the time to clinical stability after initiating randomization. Clinical stability is defined as body temperature $\leq 37.5^{\circ}\text{C}$, and $\text{PaO}_2/\text{FiO}_2 > 400$ and/or $\text{SatO}_2/\text{FiO}_2 > 300$, and respiratory rate ≤ 24 rpm; for 48 consecutive hours

Conclusions: Methylprednisolone and tacrolimus might be beneficial to treat COVID-19 patients progressing into severe pulmonary failure and systemic hyperinflammatory syndrome. The rationale for its use is the fast effect of methylprednisolone pulses and the ability of tacrolimus to inhibit both the CoV-2 replication and the secondary cytokine storm. Interestingly, both drugs are low-cost and can be manufactured on a large scale; thus, if effective and safe, a large number of patients could be treated in developed and developing countries.

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COVID-19 RELATED DIABETIC KETOACIDOSIS: REPORT OF FOUR CASES

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Background and Aims: Diabetic ketoacidosis (DKA) is a common and potentially lethal acute complication of diabetes. Early reports indicate that among patients with pre-existing diabetes, DKA may be a common complication of severe COVID-19 and a poor prognostic sign. In this report we described four patients with diabetes mellitus who presented to our intensive care unit (ICU) with DKA.

Methods: Four patients with RT-PCR positive COVID-19 pneumonia were admitted to our ICU with DKA. Vital signs, blood gas analysis, urine tests, treatments and ICU results of the patients were recorded.

Results: The ages of the patients were 23, 71, 71 and 47, respectively. Patients' pH values were 7.25, 7.35, 7.34 and 7.26; HCO_3 values were 10.6, 16.5, 16.2 and 17.0, respectively. In urine analysis, ketones are 3+, 2+, 2+ and 2+. HbA1c values were measured as 14.9, 9.9, 11.9 and 8.6 mmol/mol Hb. First patient had undiagnosed diabetes and no other comorbidity. Her Islet Cell Antibody was positive. The patient was diagnosed with Type 1 DM, and the patient whose O_2 requirement decreased during follow-up. She was transferred to the ward on 7th day. Other patients had known diabetes mellitus as well as hypertension and atherosclerotic heart diseases. The second and fourth patients were taken to the service, responding well to treatments for COVID-19-associated ARDS and ketoacidosis. The third patient had acute renal failure at the time of admission. He had an increased need for oxygen and acute myocardial infarction, died on the 10th day of the ICU admission.

Conclusions: Severe insulin resistance has been observed in severely ill patients with COVID-19. SARS-CoV-2 can trigger hyperglycemia and ketoacidosis by causing β cell damage and impaired insulin secretion.

PV203 / #556

ULTRASOUND IN PREGNANCY – NOT JUST FOR THE BABY

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Background and Aims: Lung ultrasound scanning (LUS) has become a stand-out tool in the diagnostic front of COVID-19 pandemic. It allows for bedside application, it's time-effective, and accessible to clinicians. The distinct non-ionizing nature of ultrasound has brought this technique to the upfront line in vulnerable groups, such as pregnant woman.

Methods: This report describes 2 instances in which ultrasonography was important in the management of pregnant patients, in different settings, by the Internal Medicine clinician. Patient 1 was 30 years old, 28th week of gestation, presented to the ER with complaints of dyspnea. Patient 2 was an inpatient in the Internal Medicine ward, admitted with complains of fever, cough. The differential diagnosis of COVID-19 was considered.

Results: In both patients, 12 lung windows were obtained. A global pattern of A-line was observed. The absence of B-lines and lung condensations was confirmed. Pleural sliding was present, and no pleural irregularities were observed. Patient 1 preformed bronchodilator therapy with relief of symptoms, and was readily discharged to outpatient clinic for reevaluation. Patient 2 remained in the inpatient ward for further investigation. Both preformed swabs for PCR SARS-CoV-2 posteriorly, and the results were negative.

Conclusions: In these cases LUS opened the possibility to an imaging window that allowed the clinician to consider safer and time-efficient decisions for these patients, otherwise risk-associated and not recommended by other methods. It also demonstrated the appliance of Point-of-care Ultrasound (POCUS) outside the emergency and outpatient setting. A new approach to pregnant patients may be considered, both from the obstetrician and internist's perspectives.

PV205 / #587

PULMONARY EMBOLISM IN HOSPITALIZED COVID-19 PATIENTS: AN UNRECOGNIZED CONDITION?

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Background and Aims: Patients hospitalized for COVID-19 have an increased risk of pulmonary embolism (PE). The aim of this study was to determine whether COVID-19 patients undergo CT pulmonary-angiography (CTPA) for the diagnosis of PE as established by current guidelines.

Methods: We retrospectively analysed the medical charts of 84 patients consecutively admitted to our Internal Medicine ward during the month of April 2020 (mean age 68.2±14.1 years, male/female ratio 61/23). Indication to CTPA was evaluated as established, i.e. high clinical pre-test probability (C-PTP) or elevated D-dimer level in patients with moderate C-PTP. We also used the PERC and the YEARS algorithm to identify patients who did not have indication to CTPA.

Results: The number of patients with indication to CTPA was 67 (79.7%). The number of patients who underwent CTPA was only 22 (26.2%). In 8 cases (8/2236.3%) there was a diagnosis of PE. Patients who underwent CTPA did not differ from those who did not undergo this exam, in terms of age, gender, comorbidities, reduced mobility, recent trauma or surgery, and D-dimer levels. The only statistically significant difference was the need of oxygen supplementation at the emergency room (68.2% vs 37.1%, p=0.01).

Conclusions: Only a small number of patients hospitalized for COVID-19 undergoes CTPA, although many more have indication to CTPA. Importantly, they are not clinically different from those who do not undergo CTPA. Based on this, it is possible that unrecognized cases of PE exist also among COVID-19 patients who do not undergo CTPA.

PV206 / #616

ELEVATED LIVER TRANSAMINASES LEVELS PREDICT THE SEVERITY OF THE COVID-19. META-ANALYSIS STUDY OF FIRST OUTBREAK.

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Background and Aims: Coronavirus disease-2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Since December 2019 the infection is spreading globally with a huge contagious capacity posing in threat human health. In addition to common respiratory symptoms, some patients with COVID-19 experience gastrointestinal symptoms, and multiple alteration of liver enzymes. The prevalence of the alteration of the transaminases was eventually higher in patients with a more severe clinical course and abnormalities were observed only in few patients. The aim of our study was to evaluate the association of the increased levels of transaminases (ALT and AST) with the severity of COVID-19 disease.

Methods: We conducted a systematic review and a meta-analysis of the all studies published in English, assessing the transaminases levels in hospitalized patients with COVID-19. PubMed, Scopus and Medrxiv were searched to identify relevant articles published until 08/06/2020.

Results: We review 4528 initial articles and only 36 met our inclusion criteria. Our analyses showed a significant increase of AST in non-survivors 1.39 (95% CI 1.23-1.59, I²=0) compared to survivors, in patients with severe disease 1.43 (95% CI 1.31-1.55, I²=85%) compared to non-severe, and in patients admitted to ICU 1.56 (95% CI 1.41-1.73, I²=16%) compared to one who weren't. As for the ALT the analyses showed same results, anyhow, there were no significant differences in the comparison between survivors and non-survivors.

Conclusions: Patients infected with SARS-CoV-2 with a severe form, typically tend to have mildly moderately elevated ALT and/or AST compared to patient with a moderate form.

PV207 / #636

HOSPITALAR MORTALITY OF NON "COVID-19" PATIENTS IN A PORTUGAL'S TERTIARY HOSPITAL

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Background and Aims: In February 2020, the World Health Organization designed the disease COVID-19. There has been an increase in mortality not entirely attributable to COVID-19, meaning there is a higher rate of mortality in non COVID-19 patients. The aim of this study was to compare mortality rate between April 2019 and April 2020, in an Internal Medicine ward, for non COVID-19 patients and identify responsible factors.

Methods: Retrospective observational study carried out through the analysis of digital data of all non COVID-19 patients admitted at an Internal Medicine ward in April 2019 and April 2020. The statistical analysis was performed using the SPSS statistical package version 25 and Microsoft Excel 2018.

Results: 162 patients were included. 2019 group represented 63.6% of the patients (n=103), mostly men (98.1% vs 35.6). Hospital stay was higher in the 2020 group 12.3 vs 8.9 days. There is a decrease in number of hospitalizations (80.6% in 2019 vs 67.8% in 2020), while institutionalized patients seem to be referred in the same way. Decompensation of respiratory diseases were the most common cause of hospitalization in both groups. There is no difference in mortality between the groups, both with 13.6% of deaths.

Conclusions: Patients are afraid and increasingly resort to health services with decompensated pathologies, which may cause an increase in mortality in hospitalized non COVID-19 patients. However, this is not the case in this 2020 sample compared to the same period in 2019. Extending the sample size to see if this trend continues is the next step.

PV208 / #648

EFFECTIVENESS AND SAFETY OF THYMOSIN ALPHA-1 IN PATIENTS WITH SEVERE COVID-19: A PROSPECTIVE OPEN LABEL STUDY

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Background and Aims: To assess effectiveness and safety of thymosin alpha 1 in severe COVID-19.

Methods: Thymosin alpha 1 was administered, as two injections (each 1.6 mg) / thrice daily subcutaneously for seven consecutive days, along with Standard of Care (SOC), in 15 patients from August 27, 2020 till November 2, 2020. Inclusion criteria;

respiratory distress with respiratory rate ≥ 30 breath/min, $SpO_2 \leq 90\%$ on room air, $PaO_2/FiO_2 \leq 200$ mmHg (1 mmHg=0.133 kPa), respiratory failure and need for mechanical ventilation. Clinical Trial registration number: CTRI/2020/08/027061)

Results: Mean duration (days) of hospitalisation, ICU stay, ventilator support, 13.2 ± 4.38 , 4.4 ± 0.51 , 2.87 ± 2.20 , respectively. There was a statistically significant improvement in Total lymphocyte count thousand/ mm^3 (4410 ± 1200 from 2010 ± 680 ; $p < 0.0001$), CD4 count cells/ mm^3 (558.07 ± 177.55 from 367.20 ± 166.94 ; $p = 0.0008$), CD8 count cells/ mm^3 (720.07 ± 230.38 from 509.67 ± 199.42 ; $p = 0.0008$), CRP mg/L (23.66 ± 22.64 from 76.31 ± 78.38 ; $p = 0.0428$), D-dimer levels mg/L (0.72 ± 0.37 from 1.42 ± 1.36 ; $p = 0.0428$), ferritin ng/mL (347.09 ± 185.16 from 491.75 ± 230.86 ; $p = 0.0082$), IL-6 pg/mL (4.09 ± 1.64 from 18.03 ± 4.91 ; $p < 0.0001$). LDH decreased to 329.33 ± 175.62 from 369.00 ± 186.80 ($p = 0.0182$ NS). CD4/CD8 ratio improved from 0.72 to 0.77. SpO_2 increased to 97.60 ± 0.74 from 84.93 ± 1.79 ($p < 0.0001$). WHO 8-point ordinal scale decreased (improved) to 3.2 ± 0.41 from 5.4 ± 0.51 ($p < 0.0001$). Five patients reported mild adverse events unrelated to thymosin alpha 1. There was no mortality reported.

Conclusions: There was statistically significant reduction in cytokines. Enhanced CD4 and CD8 count indicates ability of thymosin alpha 1 to induce distinctive immunological capacity, to replenish and reverse phenomenon of exhaustion of the T cells. Improved biochemical parameters are corroborated with the improved SpO_2 and the WHO 8-point ordinal scale. Thymosin Alpha 1, along with standard of care approach, appears to be a potential treatment for severe COVID-19.

PV209 / #656

METABOLIC ALTERATIONS AND HEPATIC FIBROSIS IMPACT ON SEVERITY OF SARS-COV-2 INFECTION

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Background and Aims: Background: The role of metabolic associated fatty liver disease (MAFLD) is still debated, whereas few data on the negative impact of hepatic fibrosis on SARS-CoV-2 course are emerging. Aim: to define the impact of metabolic comorbidities, MAFLD and hepatic fibrosis on SARS-CoV-2 severity in a cohort of Italian patients.

Methods: 382 patients with SARS-CoV-2 infection admitted to not-intensive COVID Units were enrolled. Severe SARS-CoV-2 and MAFLD were diagnosed according to International

consensus. In patients with MAFLD hepatic fibrosis was excluded and diagnosed by FIB4 <1.3 and >2.67. All data were collected at admission.

Results: mean age was 65±17 ys and 60% were male. Prevalence of overweight was 61%, obesity 25%, diabetes (T2DM) 17%, hypertension 44%, dyslipidemia 29%. In patients with MAFLD (61%), 60% had a FIB4<1.3 and 10% >2.67. 41% of the whole cohort experienced a severe SARS-CoV-2 infection. In multivariate analysis adjusted for age, sex, therapy during hospitalization and factors significantly associated at univariate analysis T2DM (OR 3.0, 95% CI 1.5-6.0) remained independently associated with severe SARS-CoV-2 and when combined with dislipidemia, the risk further increased (OR 3.8, 95% CI 1.6-9.1; p<=0.003). Despite simple MAFLD had no impact on the risk of severe disease, absence of fibrosis resulted a protective factor (OR 0.4, 95%CI 0.2-0.9; p=0.04).

Conclusions: We confirm that metabolic alterations, mainly T2DM, negatively impact on SARS-CoV-2 infection and the more the comorbidities the higher the risk. Despite MAFLD patients had no worse viral course, absence of hepatic fibrosis seemed to protect from advanced respiratory disease.

PV210 / #657

INTERNAL CRISIS COMMUNICATION IN A TERTIARY INTERNAL MEDICINE DEPARTMENT : THE VALUE OF A HUDDLE

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Background and Aims: During the COVID-19 pandemic, health workers are exposed to a flood of information. Internal crisis communication is a continuous process of communication between management and employees as well as between employees.

Methods: The crisis management of the Internal Medicine Departement of the University Hospital of Lausanne had 3 pillars: a medical and nursing crisis staff, situation report system, and internal service communication. We counteracted teleconferencing and social distancing and established principles to ensure a direct flow of information: (1) focus information in a multiprofessional, regular and predictable way; (2) see, talk and hear each other; (3) favor direct contacts instead of long distribution lists. The huddle was the best means of communication. Each day at noon, we gave an open 15-minute point of situation to all chief residents and leading nurses, standing at the front desk.

Results: Between March 6 and May 29, 2020, 79 daily huddles were held and as many newsletters were distributed. Beyond observing a constant participation, we measured the success of the huddle during debriefings and feedbacks carried out in a semi-structured manner. Three particular elements emerged: 1) factor of cohesion: the huddle constituted a ritual which brought people together; 2) protection against the information storm; 3) feeling of security and transparency.

Conclusions: A crisis causes uncertainty both from lack and overflow of information. Planning a crisis organization must include a communication plan to deal with it, not only by ensuring the flow of information but also by promoting contact between people.

PV211 / #661

COULD SARS-COV-2 TRIGGER MYOSITIS ? CASE REPORT OF COVID-19 IN AN ELDERLY PATIENT

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Background and Aims: Coronavirus disease 2019 (COVID-19) is an infection caused by SARS-CoV-2. A 77 year old woman was admitted in our hospital for COVID-19 pneumonia. In medical history was reported obesity, diabetes, chronic obstructive pulmonary disease. Patient had a completely negative autoimmunity at admission. After fifteen days from hospitalization she could not be weaned from the C-PAP helmet.

Methods: Anti-nuclear antibodies (ANA) and anti-neutrophil cytoplasmatic antibodies (ANCA) were detected with indirect immunofluorescence assay (IFI), extractable nuclear antigen screening (ENA) with FEIA, the confirmatory tests were performed by line-blot technology.

Results: ANA, ANCA, ENA were negative at admission. After 15 days when COVID swab resulted negative, autoimmunity showed ANA positive with granular and cytoplasmic pattern (1:320) type. After 60 days the positivity of ANA was confirmed, with cytoplasmic (1:160), centriole (1:320), granular pattern (1:160) and myositis blot positive, without any signs or symptoms of a defined autoimmune disease.

Conclusions: The observation of this case led us to analyze the correlation between the incidence of pulmonary interstitial disease and the interstitial disease evidenced in dermatomyositis/ myositis. What's the meaning of persistent ANA positivity in this patient even after the infectious event? Is that occurrence a consequence of inflammatory response to SARS-CoV-2 or is the origin of an autoimmune myositis? The possible role of SARS-CoV-2 is not yet completely clear but the already documented association of COVID-19 with the beginning of other autoimmune disease may us think that also myositis could be trigger by SARS-CoV-2. of course the condition needs additional experiences.

PV213 / #692

PULMONARY EMBOLISM (PE) ASSOCIATED TO COVID-19. A STEP FORWARD IN THE DIAGNOSIS.

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Background and Aims: Typical signs and symptoms (SyS) of PE might be less frequent during COVID-19, although studies regarding this information are lacking. Thus, isolated D-dimer (DD) elevation often raises suspicion of PE. In a pandemic context, there is a need of an appropriate selection of patients whom to perform CT pulmonary angiography (CTPA). The aim is to identify characteristics associated to PE during COVID-19.

Methods: COVID-19 patients in which PE was suspected and a CTPA was performed between March and April of 2020 were registered.

Results: 234 patients were included. 69 (30%) had PE. Eighteen variables were different between groups ($p < 0,05$). Among the SyS of PE, chest pain, hemoptysis, SyS of deep venous thrombosis (DVT), tachycardia and tachypnea were identified. Their frequency was inferior than described in PE series. Within laboratory parameters, those related to severe COVID-19, DD, C reactive protein (CRP), neutrophil count, LDH, DD/CRP and SAFI/CRP, were identified. None of the 23 patients with absence of the previous SyS and DD < 3000 ng/ml had PE. DD shows a good discriminative capacity defined by an area under the ROC curve of 0,78 ($p < 0,001$). Chest pain, neutrophil count, DD/CRP and SAFI/CRP were identified as independent factors ($p < 0,05$) in the multivariate analysis.

Conclusions: Typical SyS of PE are infrequent during COVID-19. These SyS, specially chest pain, complement the DD information to decide whether to perform CTPA, with a high negative predictive value. COVID-19 severity increases the risk of PE, which enhances the importance of thromboprophylaxis in this group of patients.

PV214 / #748

HEMOTOLOGIC MANIFESTATIONS OF COVID-19 ARDS PATIENTS AND THE IMPACT OF THROMBOCYTOPENIA ON DISEASE OUTCOMES

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Background and Aims: Aim of this study is to emphasize the hematological manifestations of COVID-19 infection and the impact of thrombocytopenia on the disease prognosis.

Methods: Clinical and laboratory data of the ARDS patients who treated in the COVID ICU of our research hospital between 1 July 2020-5 October 2020 were investigated retrospectively. Patients were divided into 2 groups as thrombocytopenic ($< 150 \times 10^9$ /ml) on admission or on ICU follow-up (Group 1) and non-thrombocytopenic (Group 2).

Results: Totally 175 patients were studied with the mean age of 66.2 ± 14.9 years whose 78 (44.6%) were female 97 (55.4) were male. APACHE II score was 17.8 ± 7.6 and SOFA score was 4.3 ± 2.1 . Thrombocyte count was 240×10^9 /ml [$15-596 \times 10^9$ /ml], D-dimer 1.16 mg/ml [$0.125-31.81$ mg/ml] study group. On admission 32 (18.3%) patients had thrombocytopenia. Mean thrombocyte count of group 1 (N=80) was $100.0 \pm 47.5 \times 10^9$ /ml. Group 1 was older (72.9 ± 10.0 vs 61.4 ± 16.7 years; $p=0.014$). APACHE II and SOFA scores were higher (19.5 ± 7.8 vs 16.3 ± 7.2 ; $p=0.006$). Group 1 had lower hemoglobin level (19.5 ± 7.8 vs 16.3 ± 7.2 gr/dl; $p=0.006$), neutrophil count (7.8 ± 5.6 vs $8.2 \pm 4.2 \times 10^9$ /ml; $p=0.012$), and lymphocyte count (0.66×10^9 /ml [$0.41-0.86$] vs 0.88×10^9 /ml [$0.58-1.24$, $p=0,001$], and higher ferritin (1180 ± 10.6 vs 914 ± 726 ug/L; $p=0.007$) and procalcitonin (0.7 [$0.15-3.26$] vs 0.21 [$0.1-0.7$] μ g/L; $p=0.022$). In Group 1 invasive mechanical ventilation was used more (57.5% vs 32.6% ; $p=0.001$); DIC was observed more (28.8% vs 3.2% ; $p=0.001$). ICU stay (11.9 ± 7.2 vs 8.5 ± 5.5 days; $p=0.001$) and hospital stay durations (17.3 ± 10.0 vs 14.7 ± 8.4 days $p=0.048$) of Group 1 were longer. Mortality of Group 1 was higher (61.3% vs 31.6% ; $p=0.001$) and less patients discharged to ward (32.5% vs 61.1% ; $p=0.001$).

Conclusions: Thrombocytopenia appears to be a factor that adversely affects the ICU prognosis of patients with COVID-19 associated ARDS.

PV215 / #761

INCIDENCE OF SARS-COV-2 IN PATIENTS WITH RHEUMATIC DISEASES ON HYDROXYCHLOROQUINE.

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Background and Aims: Hydroxychloroquine (HCQ) is a disease-modifying anti-rheumatic drug that is often used in patients with rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE). It has been observed that in-vitro, HCQ reduces the SARS-Cov-2 viral replication, but in doses higher than 1000 mg. There is controversy about whether it can help in preventing or treating COVID-19, but it is not approved by any international association. Our study aimed to observe and analyze the incidence of COVID-19 in rheumatic patients taking Hydroxychloroquine.

Methods: This is an observational study that included 95 patients: 74 with rheumatoid arthritis and 21 with SLE. All of them were taking HCQ for their rheumatic disease. Their daily dose of HCQ

was 200-400 mg. They were followed up for 8 months, whether they had been infected with COVID-19 or not. None of them had interrupted HCQ during the study. They were completed with SARS-CoV-2 serology and PCR if needed.

Results: After analyzing the data, it was seen that in 5 patients (5.3%) were found positive IgG anti-Cov-2, none of them had experienced any significant symptoms besides anosmia and ageusia. Three of them had RA and 2 had SLE. All IgG positive patients had taken 200 mg/day. The other 90 patients (94.7%) were found to have negative IgG anti-Cov-2 antibodies, none of them referred to have experienced any COVID typical symptoms.

Conclusions: Our study observed a low incidence of COVID-19 in patients with rheumatic diseases on hydroxychloroquine. This suggests a protective role of this drug in rheumatic patients, even in moderate usual doses.

PV216 / #781

NOVEL CORONAVIRUS INFECTION COVID-19 IN SOLID ORGAN RECIPIENTS: THE RESULTS OF THE NATIONAL MULTICENTER OBSERVATIONAL STUDY "ROKKOR-RECIPIENT"

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Background and Aims: The national-wide multicenter study "ROKKOR-recipient" was organized by the Russian Transplant Society to investigate the prevalence, risk factors, clinical manifestations and outcomes of new coronavirus infection (COVID-19) in solid organ recipients receiving immunosuppressive therapy in Russia.

Methods: Two hundred and fifty-one COVID-19 patients (220 kidney recipients, seven liver recipients, one liver and kidney recipient, 23 heart recipients) from 20 regions of Russia were enrolled. Symptoms, clinical manifestations, examinations results, therapy and outcomes of coronavirus infection were submitted to the analysis.

Results: The death rate among organ recipients infected with COVID-19 is increased compared to the general population. Significant risk factors of adverse events were concomitant cardiovascular, pulmonary diseases, diabetes mellitus, and renal failure, the presence of dyspnea, rash and catarrhal symptoms as symptoms of manifestation, and initial low oxygen saturation ($SpO_2 < 92\%$), leukocytosis $> 10 \times 10^9/l$, an increase in creatinine levels $> 130 \mu\text{mol/l}$ and a marked decrease in the glomerular filtration rate, requiring hemodialysis.

Conclusions: Organ transplantation performed amidst the COVID-19 pandemic does not increase the risk of death in solid organ recipients, but it could save the lives of terminal waiting list patients.

PV217 / #794

PREVALENCE OF SARS-COV-2 INFECTION AMONG HEALTHCARE WORKERS IN SPAIN. IMPACT OF SUBCLINICAL INFECTION IN A LARGE COHORT.

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Background and Aims: Due to the high incidence of COVID-19 in Spain, Spanish health care workers (HCW) are at high risk of exposure. The objective was to determine SARS-CoV-2 antibody seroprevalence and associated factors in HCW, evaluating specifically the prevalence of asymptomatic infection.

Methods: Cross-sectional study evaluating 6,190 workers between April-June, 2020, by measuring IgG-SARS-CoV-2 antibody titers and related clinical data

Results: 6,038 employees (mean age: 43.8; 71% female) were analyzed. Six-hundred-and-sixty-two (11.0%) were seropositive for IgG against SARS-CoV-2. of them, 261 (39.4%) were asymptomatic, which implies a seroprevalence of asymptomatic infection of 4.32%. Seroprevalence was higher in high- and moderate-risk exposure (12.1% and 11.4%, respectively) compared to low-grade risk subjects (7.2%). High-risk (OR: 2.06; 95% CI: 1.63-2.62) and moderate-risk (OR: 1.77; 95% CI: 1.32-2.37) exposure were associated with positive IgG-SARS-CoV-2 antibodies after adjusting for region, age and sex. Higher antibody titers were observed in moderate-severe disease (median antibody-titer: 13.7AU/mL) compared to mild (6.4AU/mL) and asymptomatic (5.1AU/mL) infection.

Conclusions: Seroprevalence of IgG-SARS-CoV-2 antibodies in HCW is a little higher than in the general population. The high rates of subclinical and previously undiagnosed infection observed in this study reinforce the utility of antibody screening, with a seroprevalence of asymptomatic infection of 4.3% among all HCW. An occupational risk for SARS-CoV-2 infection related to working in a clinical environment was demonstrated in this HCW cohort.

PV219 / #824

ORGANIZING PNEUMONIA AND COVID-19

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Case Description: Two men, aged 71 and 83, with arterial hypertension and type 2 diabetes, were diagnosed with COVID-19 by RT-PCR testing of nasopharyngeal swab. They developed respiratory failure (RF) after the first week of disease and were treated with lopinavir/ritonavir and hydroxychloroquine. In the first 48 hours after hospital admission, due to severe hypoxemic RF, both patients needed mechanical ventilation. After discharge of ICU (30th day of disease), both patients presented worsening of RF, with increase in inflammatory markers.

Clinical Hypothesis: Pulmonary embolism, nosocomial pneumonia, organizing pneumonia.

Diagnostic Pathways: Chest CT revealed an organizing pneumonia (OP) pattern, with diffuse patchy consolidations and ground-glass opacities and band opacities with peribubular distribution. Pulmonary embolism, superinfection, auto-immune disease and iatrogenic etiology were excluded. Nasopharyngeal swab for SARS-CoV-2 was negative and serology revealed antibody response. Both patients were successfully treated with corticosteroids, showing complete resolution of OP pattern, with mild to moderate residual pulmonary fibrosis without honeycombing.

Conclusion and Discussion: OP is a subacute process of immunologically mediated pulmonary tissue repair seen after lung injury. It can be cryptogenic or secondary to different clinical conditions. In viral infections, it's usually suspected when patients are initially improving with specific treatment for pneumonia and clinical deterioration occurs. After excluding other causes, clinical hypothesis of OP can be supported with a characteristic chest CT radiological pattern, without histological confirmation. We suspect that OP is much more common in SARS-CoV-2 despite the few reports until this day. Its timely diagnosis and treatment may lead to less ventilatory support, less redundant antibiotics and improving in overall survival.

PV220 / #829

COVID-19: FACE-TO-FACE RESTRICTION IN MEDICAL EDUCATION THAT HAS BROADENED TEACHING BOUNDARIES

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Background and Aims: The emergence of COVID-19 and its global expansion, put the world into an emergency and unprecedented scenario. Social detachment seems to be the most effective preventive form so far, and this has led to significant changes in medical education. This work aims to evaluate the form of participation of medical students in online events, thus showing the profound changes caused by COVID-19 on medical education.

Methods: Online questionnaire answered by medical students from the Municipal University of São Caetano do Sul.

Results: The number of students participants were 153, 20.3% from the first year, 18.3% from the second, 15% from the third, 32.7% from the fourth and 13.7% from the fifth.

Conclusions: During the pandemic, medical professionals and students had to adapt to social distancing and find solutions to what has become the new reality of distance medical education like conventions, symposia, courses and academic league classes. 73.2% of the interviewed students are participating more in this type of event, due to the ease of online access, to have more time available and for the convenience of being at home. At the end of social isolation, 37.9% would like them to remain remote only because they have adapted very well to this technology. However, 51% would like medical events to happen being in person again, but also with virtual live transmissions. 88.9% intended to continue participating in online format after the pandemic, showing that accessing a medical education content of their choice, from anywhere, at any time, is a trend that has come to stay.

PV222 / #868

INTERDEPARTMENTAL COMMUNICATION IN TIME OF PANDEMIC

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Background and Aims: On 11-03-2020, World Health Organization declared Pandemic Coronavirus disease (COVID-19), our Hospital Center (HC) reported first positive case. Interdepartmental communication: doctor-patient; doctor-doctor; doctor-authorities, should become more effective. Increased suspected cases in Emergency Department (ED), workload of doctors, and patient's anxiety about knowing their results, the creation of the COVID/SINAVE Team (CST) became imperative. Objectives of study were: (1) describe functioning of CST between 26-02-2020 and 15-06-2020, (2) demonstrate benefits that CST creation provided to Directorate-General for Health (DGH), referral HC and patients.

Methods: Created on 26-03-2020, CST, made up exclusively of doctors, received daily the list of patients who, on previous day, carried out SARS-CoV-2 research in HC. CST was in charge

of notifying all suspected cases (positive/negative) on SINAVE platform, and contacting all negative cases by phone. We compared average time notification, before/after CST creation.

Results: For about 3 months, 14,864 tests were performed on 9235 patients, of which 495 were positive. After creation of the CST, majority of patients who underwent SARS-CoV-2 research in HC were informed of their negative result, mostly, on working day following the test. Regarding notification on SINAVE platform, the average time notification after creation of CST decreased considerably compared to the period when attending physician was to notify.

Conclusions: Creation of CST proved to be an effective and useful measure for doctors, patients, decision makers. Results of suspected cases were transmitted practically in real time, through SINAVE platform, to DGH. All patients with negative results were informed in a timely manner by telephone.

PV227 / #944

THE VOICE AS A BIO-MARKER OF COVID-19: PRELIMINARY RESULTS AND FOLLOW-UP OF THE CO-VOICE-19 STUDY

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Background and Aims: COVID-19 has an impact on lung function and, consequently, on voice emission. By registering an adequate number of patients with COVID-19, we can “train” artificial intelligence algorithms in order to highlight the disease status of any person whose voice is registered. Impact on voice increases with disease progression, allowing staging.

Methods: Prospective pilot study to evaluate the condition of COVID-19 affection of critically ill patients hospitalized and monitored by evaluating their speech capacity through measurement and recording of the voice. Primary End Point: Remotely locate people infected with COVID-19. Secondary end-points: Establish the presence of any geographic areas with “outbreaks”, by “crossing” the geo-location data, staging the disease.

Results: 85 patients evaluated and 18 (10F and 8M) recruited, average age 62, subjected to intubation 3/18. WHO stage 2: 50%; comorbidity >3: 61%; only 2 with P/F <200. Feature selection algorithms, performed on voice and cough characteristics, rank as the most relevant features for evidencing COVID-positive patients those related to spectrum and particularly to cepstrum. Among the selected features, we can evidence the Mel-frequency cepstral coefficients (MFCCs), the Relative Spectral Filtering (RASTA) and the Spectral low-level descriptors (LLD). 4-month

follow-up showed dyspnea on exertion, asthenia, reduced exercise capacity in >50% of patients, improved after experimentally respiratory rehabilitation.

Conclusions: Preliminary audio signal analysis of the patient's voice recordings treated with Artificial Intelligence algorithms seem to confirm that the voice makes it possible to discriminate between healthy subjects and subjects affected by COVID-19 and use these skills to screen suspect patients by telephone triage.

PV228 / #949

COVID-19: CLINICAL CHARACTERIZATION OF PATIENTS DURING THE FIRST WAVE OF PANDEMIC IN A SECONDARY HOSPITAL IN RURAL SETTING

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Background and Aims: COVID-19 is a viral respiratory disease in which the majority of infected do not require hospitalization but specific subsets of the population are more vulnerable. Treatment includes support care ensuring the control of infection. Multiple treatment options were instituted but still, there is no proven effective treatment for mild cases.

Methods: Retrospective cross-sectional assessment of SARS-CoV-2 infections admitted to the internal medicine dedicated area from March to September 2020. Demographic and clinical data were assessed in the clinical file and statistical analysis performed using IBM SPSS® V25.

Results: 65 patients, mean age of 73; 49% male and 51% females. 60% were autonomous and 20% institutionalized. Major comorbidities: hypertension (65%), diabetes (32%), obesity (23%) and pulmonary disease (25%). The most frequent symptoms were fever, cough and dyspnea. The median hospital stay was 21 days with 28 days of infection. During hospitalization, 54% of patients received lopinavir/ritonavir plus hydroxychloroquine, 3% remdesivir, 9% dexamethasone, 15% tocilizumab, and 77% at least one antibiotic. The mortality rate was 29% with a mean age of 85, with a statistical difference in age and dependency between survivors and non-survivors. There was no difference between the type of treatment and the faster curing rate.

Conclusions: The population is heterogeneous, older, and risk factors for severe disease. High hospitalization days may be due to elderly patients with sequelae and only a few patients with isolation capacity at home. The ideal approach for the treatment of COVID-19 is uncertain, our approach was based on limited data that evolves rapidly as clinical data emerges.

PV229 / #954

THE IMPACT OF EARLY FLUID ADMINISTRATION ON INPATIENT MORTALITY AND ACUTE KIDNEY INJURY IN COVID-19

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Background and Aims: Initial guidance advised cautious fluid administration for patients with COVID-19 due to concerns about the development of acute respiratory distress syndrome. However patients admitted to hospital with COVID-19 had high rates of Acute Kidney Injury (AKI). We assessed the impact of fluid administration on AKI and inpatient mortality in patients with COVID-19.

Methods: We performed a retrospective cohort study of 158 adult patients with laboratory confirmed COVID-19. The intervention was fluid administration within 24 hours of hospital admission. Data was collected on patient demographics, clinical features, laboratory changes and radiological findings. Outcomes were inpatient mortality, length of hospital stay, AKI recovery at discharge and requirement for intensive care (ICU) or kidney replacement therapy (KRT). Multivariate adjusted logistic regression was performed.

Results: 118 patients (75%) received fluids within 24 hours of admission (median volume 1.5L). There was no difference in inpatient mortality ($p=0.97$), duration of hospital stay ($p=0.26$) or requirement for ICU ($p=0.70$) in patients receiving fluids versus those who did not. 52 patients (33%) had AKI at presentation, of whom 43 received fluids. Requirement for KRT ($p=0.34$), inpatient mortality ($p=0.50$) and AKI recovery at discharge ($p=0.63$) did not vary between groups. Mortality rate was higher in patients with AKI (31% vs 18%). Black ethnicity was a risk factor for development of AKI after admission.

Conclusions: Fluid administration in patients with COVID-19 did not result in adverse outcomes in terms of mortality, duration of hospital stay or requirement for ICU admission. We did not demonstrate improved renal outcomes in patients who received intravenous fluids.

PV230 / #963

RISK OF SARS-COV-2 INFECTION AMONG HEALTH CARE WORKERS COMPARED TO GENERAL POPULATIONS IN A SUBURBAN AREA OF SOUTHERN SWITZERLAND

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Background and Aims: SARS-CoV-2 is transmitted by air via droplets. The aim of this study was to determine, in a suburban area of South Switzerland, the seroprevalence among healthcare providers compared to the general population.

Methods: Included were the participants of the Swiss-Longitudinal-Cohort-Study (SWICOS), a population-based prospective study involving inhabitants of a suburban area of Southern Switzerland and all healthcare workers in long-term care facilities, outpatient clinics, homecare or ambulance services of this region. In May 2020 all participants filled a standardized questionnaire about their recent health history and a blood sample was drawn. Anti-SARS-CoV-2 antibodies were screened with an ELISA test ("Anti-SARS-CoV-2 ELISA", Euroimmun) to detect specific IgG against spike protein subunit 1 SARS-CoV-2.

Results: Among 344 healthcare providers 289 were tested; their age was 48 [36-56] years (median and IQR) and females were 202 (70%). Among 488 SWICOS participants 423 were tested; their age was 52 [43-63] years and females were 239 (57%). From healthcare providers 46 (16%) were positive for SARS-CoV-2 IgG compared with 10 (2.4%) of SWICOS participants ($p<0.0001$).

Conclusions: Healthcare providers working out of the hospital have seven times more unadjusted risk to be infected by SARS-CoV-2 as compared with the general population.

PV231 / #976

HOW TO EDIT FIELD FACILITIES ORGANIZATIONAL MODELS TO PROTECT FRAGILE INDIVIDUALS FROM COVID-19 INFECTION: MORTALITY RISK FACTORS AND MANAGEMENT SOLUTIONS

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Background and Aims: Asl Roma 6 (population served 531,177

inhabitants) is characterized by strong hospital-territory integration due to the presence of 4 hospitals and 6 districts and over 36 low-intensity territorial structures for frail elderly.

Methods: Retrospective evaluation of the mortality of patients admitted to COVID Medicine with identification of risk factors and the formulation of innovative risk reduction models.

Results: From 1st April to 3rd June 85 (49F, 36M) patients admitted average age 77 years; 68% with > 3 comorbidities. Mortality: 28%, average age 86.8 years (10 years greater than the average age of the hospitalized). Main risk factors: coming from field facilities (100%) and comorbidities >3 (100%), followed by WHO Stage 3 (70%); IRC (58%); D- Dimer at the entrance >500 (50%), Cancer (41%). From October 17 to December 3, 127 patients admitted with mean age 10 years less than the first wave. Slightly reduced mortality (24% vs 28%) with similar patients' characteristics: advanced age, comorbidities.

Conclusions: To effectively carry out emergency preparedness actions we need to introduce new organizational models specifically within the residential structures for the elderly, as currently implemented in ASL Roma 6: 1. acceptance only after 2 negative swabs; 2. isolation with quarantine inside the structure and subsequently accommodation with other patients; 3. monitoring by periodic swabs; 4. social distancing and PPE (Personal Protective Equipment) use. Prevention with selective isolation of fragile patients is the best option to reduce mortality as intensive care was not effective in avoiding deaths (CPAP-Continuous Positive Airway Pressure was performed in 10% of patients with little benefit).

PV232 / #1007

“CONVALESCENT PLASMA THERAPY IN FILIPINO PATIENTS WITH CONFIRMED COVID-19 INFECTION IN A TERTIARY HOSPITAL IN CEBU CITY: A RETROSPECTIVE COHORT SINGLE CENTER STUDY”

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Background and Aims: Convalescent plasma therapy (CPT) is an experimental treatment option with a sizable background in viral outbreaks. Although there has been some favorable outcomes in using CPT in the treatment of viral illnesses, its use in Coronavirus Disease-19 (COVID-19) is still experimental. We aim to review existing literature, provide local data and determine if CPT added to standard of care is beneficial on the outcomes of patients with severe COVID-19 infection.

Methods: A single center retrospective study that was conducted in Perpetual Succour Hospital (PSH) between March to September 2020. The data of severe COVID-19 patients who received convalescent plasma along with standard treatment regimen (intervention arm) based on PSH's interim guideline (n=22) was compared to the data of severe COVID-19 patients who did not

receive convalescent plasma (n=43) (control arm). Both groups were matched according to age, sex, comorbidity and treatments. The data were analyzed retrospectively.

Results: Both groups are comparable in terms of baseline characteristics, laboratory results and interventions. Additionally, our data suggests that there is no significant difference in vital signs, inflammatory markers, and blood chemistry test results before and after giving convalescent plasma. The clinical outcomes, however, differ significantly in duration of admission, illness severity and mortality. The control group is observed to have shorter hospitalization, more critically ill patients and more deaths. Conversely, the intervention arm has recorded more recoveries.

Conclusions: Convalescent Plasma Therapy added to standard treatment, compared with standard treatment alone did not significantly improve clinical outcomes among patients with severe or life-threatening COVID-19.

PV234 / #1012

SOCIODEMOGRAPHIC PROFILE, CLINICAL CHARACTERISTICS, MANAGEMENT AND HOSPITAL OUTCOMES OF COVID-19 CONFIRMED ADULT PATIENTS ADMITTED IN A TERTIARY HOSPITAL FROM MARCH 2020 TO SEPTEMBER 2020

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Background and Aims: COVID-19 has awakened the world when it started a global pandemic. The sociodemographic factors have a substantial impact on the overall casualties and understanding the baseline characteristics, clinical presentation of patients is essential for prevention, diagnosis and clinical care.

Methods: A retrospective observational study consisting of 368 adult COVID-19 patients in a tertiary hospital in Cebu City. Charts were reviewed for data collection and analyzed.

Results: The patients had a mean age of 57.78 years, males, smokers, and residents of Cebu City. Most of these patients are hypertensive (74.59%). Most common presenting symptoms were cough (66.85%), fever (59.51%), and dyspnea (40.76%). More than half (51.36%) has infiltrates and ground glass opacities on imaging. Antibiotics usually administered were Azithromycin with Piperacillin tazobactam. Lopinavir Ritonavir was the most used antiviral. The average duration of admission was 10.348 days. The patients also spent an average 8.265 days in the ICU. Acute kidney injury was the most common complication and respiratory failure was the most common cause of death. There was a significant association between the age, APACHE II, SOFA score, CRP, duration of ICU admission and their recovery. Majority of the admitted patients were moderate in severity and mostly recovered (87%).

Conclusions: In our study, COVID-19 patients were predominantly elderly male, hypertensive, smokers. The usual initial presentation

were cough, fever, dyspnea and tachypneic. Laboratory showed lymphocytopenia with decreased absolute lymphocyte count. The average hospital stay was ten days complicated by kidney injury and respiratory failure. Majority of admitted were classified as moderate in terms of severity and mostly recovered.

PV235 / #1024

APPLICATION OF WELLS AND GENEVA SCALES IN THE CONTEXT OF COVID-19

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Background and Aims: Wells and Geneva scales are widely used in the diagnostic algorithms of pulmonary embolism (PE). Lack of typical signs and symptoms of PE in the setting of COVID-19 may reduce the diagnostic accuracy of these scales. The objective is to assess the role of these scales in the context of COVID-19.

Methods: Wells and Geneva scales were applied to COVID-19 patients in which PE was suspected and a CTPA was performed between March and April of 2020. Scales diagnostic accuracy was defined by the area under the ROC curve (AUC). Sensitivity of the scales applied to our sample was compared with the previously described in the literature.

Results: 234 patients were included, 69 (30%) had PE. In comparison with the previous studies, Wells and Geneva scales applied to our sample showed an inferior AUC: 0,62 (95% CI 0,54-0,71) Vs 0,79 for Wells, and 0,60 (95% CI 0,52-0,68) Vs 0,73 for Geneva. Wells and Geneva applied to our sample results were less accurate than described in the literature. Percentages of PE compared to those referred in the literature were: 36,5% Vs 3% in the low-risk group, 50,8% Vs 20% in the intermediate-risk group and 12,7% Vs 60% for Wells; and 28,6% Vs 8% in the low-risk group, 68,3% Vs 29% in the intermediate-risk group and 3,2% Vs 74% for Geneva.

Conclusions: Diagnostic accuracy of Wells and Geneva scales may be limited in the context of COVID-19. Further researchs with larger samples might support our results.

PV237 / #1051

PULMONARY EMBOLISM IN A PATIENT ON CANCER CHEMOTHERAPY WITH COVID-19 PNEUMONIA

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Background and Aims: Case Description: A 78-year-old female presented with four days of fever (39°C), fatigue, no chest pain or dyspnea. The patient had undergone rectosigmoidal

cancer surgery five months earlier and had finished her 6th chemotherapy cycle (oxaliplatin, leucovorin, 5-fluorouracil) just before the symptom onset. She was tested positive for SARS-CoV-2 RNA in nasopharyngeal swab. SpO₂ was 96% on room air. The electrocardiogram showed inverted T-waves in anteroseptal leads. WBC count was 10.2*10⁹/L [norm 4-9], CRP 19.5 mg/L [0-5], high-sensitivity troponin I was 984 ng/L [0-15]. Her D-dimer was 38.8 mg/L [0-0.5].

Methods: Clinical Hypothesis: The preliminary diagnosis was COVID-19 pneumonia. Elevated troponin and D-dimer raised suspicion of myocardial ischemia, viral myocarditis or pulmonary embolism.

Results: Diagnostic Pathways: According to the local protocol, native computed tomography of the chest was done, which initially did not reveal any lung pathology. Because of elevated D-dimer, 3,800 IU of nadroparin subcutaneously twice daily was started per local protocol. The patient experienced subsequent desaturation (SaO₂ 86% on room air) and underwent CT angiography of the chest, which revealed right-sided segmental pulmonary embolism and signs of moderate bilateral atypical pneumonia. Dexamethasone 6 mg orally once daily was started. Dose of anticoagulation was raised to 5700 IU twice daily. She received oxygen therapy using non-rebreather mask, which was gradually tapered until normal saturation.

Conclusions: The case demonstrates the prothrombotic features of COVID-19 in a patient on chemotherapy – another risk factor for venous thromboembolism. The patient developed viral pneumonia which in combination with pulmonary embolism caused desaturation requiring supplemental oxygen.

PV238 / #1074

WHEN IT'S NOT JUST SARS-COV-2

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Case Description: 46-year-old male, with colon carcinoma underwent segmental resection and was on adjuvant chemotherapy. Recently he was more tired, with muscle pain, fever and syncope on the day he presented to the emergency department. Upon admission, conscious, hypotensive, SatO₂ 92% room air and scattered crackles in the lung fields. Hypoxemic respiratory failure and lactate 3.1mmol/L.

Clinical Hypothesis: As an immunocompromised patient and, considering the current pandemic situation, infection by SARS-CoV-2 should be considered in addition to bacterial, fungal or viral lung infection.

Diagnostic Pathway: PCR SARS-CoV-2 test was positive and chest CT-scan was compatible with the diagnostic. The patient

had an unfavorable evolution with bacterial coinfection and worsening respiratory failure, being admitted to the ICU due to severe ARDS and placed on ECMO-VV for 44 days. A control thoracic CT-scan revealed micronodules, tree-in-bud pattern and signs of infectious endobronchial dissemination with cavitation. *Mycobacterium tuberculosis* complex DNA was identified in the bronchoalveolar lavage and the patient started antituberculous therapy with favorable clinical evolution. He met the COVID-19 cure criteria on the 32nd day of hospitalization.

Conclusion and Discussion: This case presents a SARS-CoV-2 and pulmonary tuberculosis (PT) coinfection, in an immunosuppressed patient. The diagnosis of PT in a pandemic scenario due to SARS-CoV-2 can be difficult, not only due to the non-specific clinical presentation of the two clinical entities but also due to the absence of characteristic radiological findings, especially in groups at higher risk (such as this patient). Additionally, COVID-19 may lead to reactivation of latent tuberculosis.

PV239 / #1113

MULTIPLE SCLEROSIS DIAGNOSIS AND SARS-COV-2 INFECTION

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Case Description: We present a case of a 28-year-old man with no relevant prior medical conditions, that presented to the ER with a three day history of acute onset horizontal binocular diplopia, hand numbness with a “stocking-glove” pattern and gait imbalance. Ten days before, the patient reported the onset of parietal headache that had worsened after the beginning of the remaining symptoms. PCR test for SARS-CoV-2 revealed positive.

Clinical Hypothesis: We hypothesized that SARS-CoV-2 infection could have played a role in the clinical onset of neurological symptoms.

Diagnostic Pathways: Brain and cervical MRI showed T2 hyperintense lesions with dissemination in space fulfilling McDonald criteria for multiple sclerosis (MS) diagnosis. Laboratory results showed the presence of oligoclonal IgG bands in the CSF. SARS-CoV-2 PCR analysis of CSF was negative. The autoimmune, serological and microbiological studies in blood and CSF ruled out other aetiologies. The patient was discharged after fifteen days only maintaining the visual alterations.

Conclusion and Discussion: Although viral infections have been linked to the development of demyelinating diseases, it remains unclear if this relationship also exists in the case of SARS-CoV-2. We report the first presentation of demyelinating disease during SARS-CoV-2 infection. Whether the SARS-CoV-2 may have

acted as a precipitating factor rather than MS being a direct consequence of the infection remains unclear.

PV240 / #1123

HIV AND SARS-COV-2 COINFECTION: CAN HIV BE A PROTECTIVE FACTOR ASSOCIATED WITH A BETTER CLINICAL OUTCOME?

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Background and Aims: COVID-19 patients with unfavourable course often present a dysregulated immune response with a hyperinflammatory state. This type of response may not be achieved in infection by human immunodeficiency virus (HIV), so it seems to be of great interest to determine whether HIV could act as a protective factor in patients with COVID-19.

Methods: Ambispective cohort study including adult patients admitted to a tertiary care hospital from March to July 2020 with SARS-CoV-2 infection. Patients were divided into HIV and control groups. Two age and sex matched controls have been chosen for each HIV patient. Primary endpoint was all cause mortality; secondary endpoints were prevalence of PaO₂/FiO₂ ratio (P/F) <200, exacerbated inflammatory response at admission (EIR), acute respiratory distress syndrome (ARDS), Intensive Care Unit admission (ICUa) and need for mechanical ventilation (MV).

Results: Nine HIV infected patients were admitted (mean age of 59 years), being 67% male. Eighteen patients formed the control-group. Main symptoms at presentation were cough (63%), dyspnea (59.3%) and fever (51.9%), with no statistical differences between groups. Mean Neutrophil/Lymphocyte ratio was 3.3 (OR 2) in HIV-group and 5.7 (OR 3.8) in control-group (p-value 0.0718). There was only one death (primary endpoint) in the control group (0% vs. 5.6%; p-value 0.524). P/F <200 (33.3% vs. 38.9%; p-value 0.778), ARDS (25% vs. 29.4%; p-value 0.778), ICUa (25% vs. 33.3%; p-value 0.778) and need for MV (12.5% vs. 29.4%; p-value 0.778) were similar between HIV and control groups.

Conclusions: HIV population appears to have a COVID-19 course similar to that of patients non-HIV infected patients, as has been suggested by other studies.

PV241 / #1138

COVID-19: MUCH MORE THAN A LUNG DISEASE

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Case Description: A 82-year-old woman with high cardiovascular risk score went to the hospital due to dyspnea, cough and difficulty clearing secretions. She was conscious, oriented; hemodynamically stable, febrile, SpO₂ 76% (FiO₂ 21%). The study revealed: global respiratory failure, high inflammatory parameters; hypotransparency of the right base on chest x-ray; positive SARS-CoV-2 nasopharyngeal swab. She was admitted in intensive care unit for severe SARS-CoV-2 disease. Later, she presented hyperactive delirium and had an accidental fall. Head CT revealed a subacute right temporal hematoma and vasogenic edema suggestive of underlying space-occupying lesion.

Clinical Hypothesis: COVID-19 is associated to a prothrombotic state that favours systemic embolism and haemorrhage. This CT showed a hematoma that could be a hemorrhagic or an ischemic stroke with hemorrhagic transformation in a patient who also had multiple vascular risk factors. However, the image suggested a space-occupying lesion so a primary neoplasia was searched.

Diagnostic Pathways: Thoraco-abdomino-pelvic CT scan showed a right breast neof ormation and the presence of a thrombus in the right subclavian vein and lobar pulmonary embolism. Anticoagulation wasn't possible. Pulmonary thromboembolism or a superior vena cava filter weren't possible either due to high surgical risk. As the patient presented clinical worsening and died, a breast biopsy wasn't made.

Conclusion and Discussion: One must be highly alert to possible embolic events in COVID-19 patients to have an early diagnosis and treatment. COVID-19 and a probable neoplasia greatly increased this patient prothrombotic risk with several manifestations: subclavian vein thrombus, pulmonary thromboembolism and cerebral haemorrhage.

PV242 / #1171

BONE MARROW INVOLVEMENT IN SARS-COV-2 INFECTION: A CASE REPORT

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Case Description: We describe a case of a 54-years-old african-portuguese man, with a renal transplant fulfilling

immunosuppressive therapy with Prednisolone, Mycophenolic Acid and Tacrolimus, admitted to our ward because of a COVID-19 pneumonia. In the first days the patient remained stable, afebrile and in room air. At the third day of admission, the recurrence of fever concomitantly presented with a de novo pancytopenia.

Clinical Hypothesis: We hypothesized SARS-CoV-2 bone marrow involvement.

Diagnostic Pathways: No inflammatory markers were elevated and no sign of haemolysis was found. The patient remained asymptomatic and had no blood losses accountable. No new drugs were added and the immunosuppressive therapy was kept. Blood and urine cultures were negative. A thoracic and abdominal CT-scan was made, showing only lung ground glass opacities. Peripheral blood smear had no relevant findings. The fever was assumed in the context of COVID-19, and resolved at day twelve of admission. Pancytopenia persisted thereafter and progressively improved, with complete resolution simultaneous with a nasopharyngeal swab negative for SARS-CoV-2.

Conclusion and Discussion: SARS-CoV-2 uses ECA2 to infect cells, which is present in the bone marrow, making it plausible to SARS-CoV-2 to infect and arrest hematopoietic progenitor cells and cause myelosuppression. In the case presented here, the intimate time relationship established with the clinical and laboratory findings made us postulate that in the time period when viral replication was highest, the hematopoietic tropism and subsequent bone marrow invasion was more significant, with consequent myelosuppression. No other cases of presumptive SARS-CoV-2 bone marrow involvement were found.

PV243 / #1181

OLGIVIE SYNDROME – A SARS-COV-2 INFECTION COMPLICATION

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Case Description: A 86-years-old man with myeloproliferative disorder, dementia and hypertension was admitted with complaints of dyspnea, generalized abdominal pain and diarrhea for the last four days. He had superficial polypnea and distended, tympanic and painful abdomen. Hemoglobin was 7.7 g/dL, creatinine 2.41 mg/dL, urea 76mg/dL, potassium 3.2 mg/dL, T troponin 58mg/dL, NT-proBNP 4016 mg/dL, lactate dehydrogenase 500 mg/dL, C-reactive protein 16.8 mg/dL. Arterial blood gas analysis with type 1 respiratory failure (pO₂ 66 mmHg) and abdominal X-ray showed hydro-aerial levels and distention of intestinal loops.

Clinical Hypothesis: Causes of intestinal occlusion were hypothesized.

Diagnostic pathways: Abdominal CT-scan revealed significant sigmoidal distention with air and liquid with lung ground glass parenchymal densification and pleural effusion. Abdominal decompression was achieved after removal of four liters by enteroclysis probe. Polymerase chain reaction test for SARS-CoV-2 was positive.

Conclusion and Discussion: Multisystemic dysfunction by sepsis in abdominal infection. Palliative care was provided as surgery was not an option. Since history of narcotic use, significant metabolic and electrolyte disturbances were excluded, the authors propose COVID-19 as the cause of the Ogilvie syndrome. Several cases of hypomotility-related complications of variable severity have been reported in SARS-CoV-2 patients. It is possible that SARS-CoV-2 induced small vessel thrombosis or viral enteroneuropathy can lead to Ogilvie syndrome.

PV244 / #1216

A RARE CAUSE OF PULMONARY EMBOLISM IN A COVID-19 PATIENT: PULMONARY CEMENT EMBOLISM

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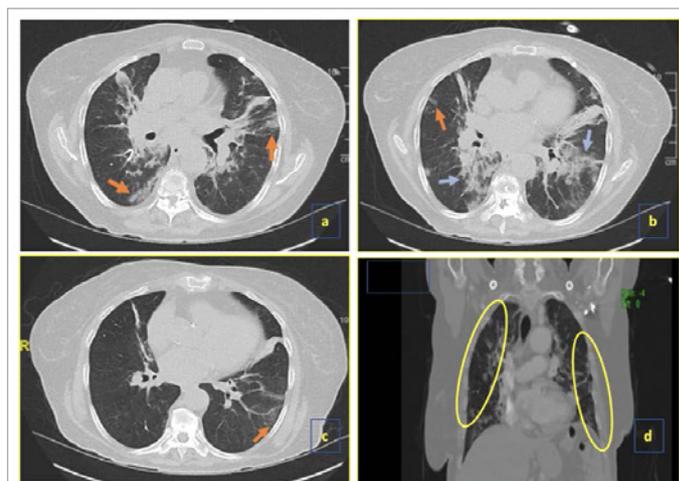
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Case Description: Pulmonary embolism (PE) refers to obstruction of the pulmonary artery or one of its branches by material (eg, thrombus, tumor, air, or fat) that originated elsewhere in the body. Pulmonary cement embolism (PCE) refers to the embolization of polymethyl methacrylate (PMMA) into the lungs. Here we report a case diagnosed with COVID-19 before vertebroplasty revision surgery and detected PCE in computerized tomography (CT).

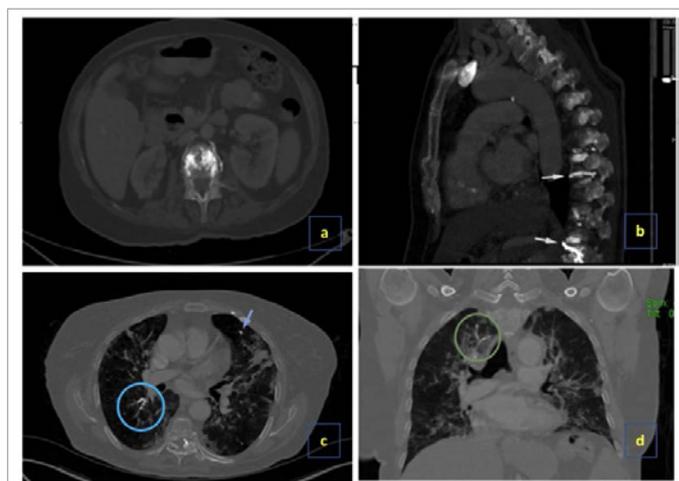
Clinical Hypothesis: PE is frequently seen in COVID-19 patients (1-3) but the causes of PE without thrombosis like cement should also be evaluated in patients who have risk factors.

Diagnostic Pathways: A 60 years old woman was hospitalized by the orthopedics department diagnosed with an osteoporotic fracture for revision vertebroplasty. Percutaneous vertebroplasty had been performed three times due to fractures of the T12-L4 vertebrae. The SARS-CoV-2 PCR test, which was examined upon the patient's fever, was positive and she transferred COVID-19 ward. A CT revealed no acute infection signs for COVID-19. Favipiravir and enoxaparin treatment started. The patient developed hypoxia and respiratory distress. The D-Dimer level was 1.26 mg/l. CT angiography was performed that revealed COVID-19 progression and cement materials in the paravertebral venous plexus and hyperdense cement materials that branch out in the pulmonary artery branches.

Conclusion and Discussion: The removal of the cement embolus was not considered since the patient has multiple cement embolism and anticoagulation treatment given compatible with the literature. The patient's complaints improved. The cause of PE is not always thrombosis. Rare reasons like PCE should be kept in mind for patients with risk factors.



#1216 Figure A: Transverse thin-section CT scans (a, b and c) and coronal reformatted scan (d) in patients with COVID-19 pneumonia and pulmonary cement embolism. Bilateral, peripheral ground-glass opacity (a, b, c-orange arrows; d-yellow circles) and small patch like consolidations (b-blue arrows) are compatible with COVID-19 pneumonia.



#1216 Figure B: Transverse thin-section CT scans (a and c), sagittal and coronal reformatted scans (b and d) in patients with COVID-19 pneumonia and pulmonary cement embolism. In the images from the bone window; after the vertebroplasty procedure, we see the heterogeneous hyperdense vertebral body (a), thin tubular-shaped cement materials in the paravertebral venous plexus (b-grey arrows) and linear, tubular shaped, hyperdense materials (c-blue arrow and circle; d-green circle) that branch out in the pulmonary artery branches compatible with pulmonary cement embolism.

PV245 / #1260

EVALUATION OF CORRECTED QT INTERVALS OF 74 COVID-19 PATIENTS TREATED WITH HYDROXYCHLOROQUINE IN COMBINATION WITH OR WITHOUT AZITHROMYCIN AND/OR FAVIPIRAVIR

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Background and Aims: We aimed to evaluate the degree of QTc prolongation and associated factors in patients with COVID-19 in association with their usage of hydroxychloroquine (HQ) with or without the combination of azithromycin (AZ) and/or favipiravir (FAV).

Methods: This single-center, retrospective study was conducted in a tertiary care university hospital. We retrospectively examined the pre and post-treatment electrocardiogram (ECG) records of 74 patients.

Results: The median age was 44 (IQR 27) and 34 (45.5%) were women. All these 74 patients were treated with HCQ. 63 of them (83.2%) were treated with azithromycin and 8 patients (10.8%) also were treated with plus favipiravir. All ECGs were in sinus rhythm and arrhythmia was not developed in any patients. The median (IQR) baseline QTc of 74 patients was 400 (375-421) milliseconds, and the median (IQR) posttreatment QTc was 418 milliseconds (391-432) and the change was statistically significant ($p < 0.001$). There was no statistically significant difference in QTc prolongation between treatment groups. In the linear regression model, moderate disease activity, higher MEWS (Modified early warning score) score (≥ 2), and heart rate were independent predictors. QTc prolongation of more than 60 msec was observed in 5 patients (6.7%). Posttreatment QTc value of over 500 msec was observed in 3 patients (4%) and the drugs were discontinued.

Conclusions: This is the first study that demonstrates that MEWS score and disease severity are related to higher QTc prolongation values. HCQ, AZ, and FAV should be safely used in patients with lower MEWS score and without the severe disease, in conjunction with QTc follow-up.

PV246 / #1275

SPONTANEOUS PNEUMOTHORAX DURING THE RECOVERY PERIOD OF COVID-19 PNEUMONIA

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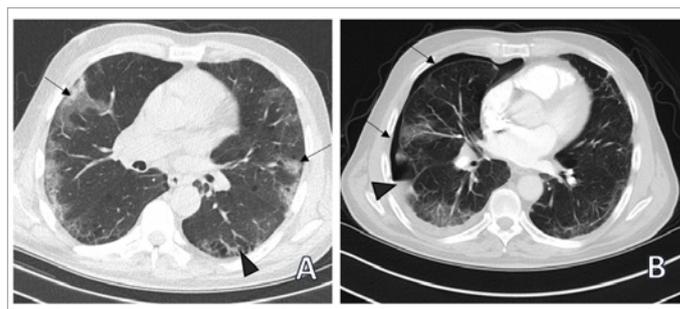
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Background and Aims: Pneumothorax can occur in patients who are mechanically ventilated due to prolonged positive pressure. Though, pneumothorax may be incident during the recovery period of COVID-19.

Methods: Pneumothorax should always be kept in mind in newly emerging dyspnea after SARS-CoV-2 infection.

Results: A 66-year-old male patient with a diagnosis of bullous emphysema was presented to the emergency department with fever, weakness, and dizziness. Crackles in multiple areas were evident in lung auscultation, and the O₂ saturation was found to be 88% with pulse oximetry. SARS-CoV-2 PCR was positive, and the computed tomography (CT) of the chest revealed peripheral ground-glass appearance consistent with subacute COVID-19 pneumonia. Laboratory studies were remarkable with d-dimer 0,26 mg/L, lymphocyte 700 x 10³µg/L and ferritin 346,3 µg/L. Favipiravir, moxifloxacin, and low molecular-weight heparin (1x0.4 unite enoxaparin) were started, dexamethasone 6mg per day was added. The patient did not require high flow oxygen or mechanical ventilator support. Two weeks after discharge, the patient presented to COVID-19 outpatient clinic with increased dyspnea sensation and chest pain, and laboratory studies revealed an increased level of d-dimer (3.09 mg/L). Direct radiography of the chest raised suspicion of mild right-sided pneumothorax. Therefore, CT pulmonary angiogram was performed urgently to exclude co-incident pulmonary embolism. Hydropneumothorax was visualized on the right side without pulmonary embolus.

Conclusions: Pneumothorax is a potentially hazardous condition in which chest pain and dyspnea can be only symptoms. Both a detailed physical examination and a careful assessment of the lung radiography are essential in this respect.



#1275 Figure A: Bilateral peripheral ground-glass infiltration pattern consistent with subacute COVID-19 pneumonia (arrows), bullous emphysema (arrowhead). B: Pneumothorax on the right side (arrows) with pleural fluid (arrowhead)

PV247 / #1291

TITLE: NON-INVASIVE SEVERITY INDEX OF INFLAMMATORY DAMAGE IN COVID -19

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Background and Aims: Elfi-Tech (Rehovot, Israel) has developed optical technology for the assessment of the red blood cell (RBC) random movement inside the vessels. Conditions for the random motion of the RBCs are created artificially by stopping blood flow. The goal of the study was to examine the assumption that the RBCs motion index differentiates between COVID patients and healthy subjects.

Methods: The research was done using a device which contains the sensor and a silicone ring worn on the root of the finger. This ring inflates up to 200 mm Hg for 60 seconds and shut off the local blood flow. Using a specially developed algorithm, RBCs mobility index called Optical Marker of Erythrocyte Diffusion (OMED) is extracted from the measured signal. OMED is adjusted for the range -2 and +2.

Results: We studied a group of 22 COVID patients and 32 healthy subjects. The mean OMED value for COVID patients and controls are is -0.19, and 0.45, correspondingly. p-value <0.00001. OMED index also correlates with the severity of the patient. The lower the value of the index, the greater the likelihood that the patient's condition is severe. This consistent with the fact that inflammation may result in an impairment of the endothelial cells, effecting the motion of RBCs.

Conclusions: Preliminary results of the study give hope that it will be possible to monitor patient's conditions and assess the severity of vascular damage involved for infectious diseases in general and viral infection of Corona patients in particular.

PV248 / #1318

MODIFICATION OF HOSPITAL DISCHARGE SUMMARY SOFTWARE TO IMPROVE COVID-19 DOCUMENTATION AND SAFEGUARD COMMUNITY INFECTION PREVENTION

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Background and Aims: Initial review of 50 discharge summaries at Royal Shrewsbury Hospital in April 2020 revealed only 27% included the patient's COVID-19 test result and 2% outlined any recommended self-isolation advice. This had potential adverse implications for infection control as well as medico-legal sequelae for the Trust if exposed patients were discharged without self-isolation advice and subsequently spread COVID-19 in the community. The medical team worked with hospital IT to amend the existing discharge summary software, such that two tabs were added to make COVID-19 test result and self-isolation documentation mandatory prior to sign off, in an early

pilot version. We aimed to evaluate the impact of this software modification on COVID-19 discharge summary documentation.

Methods: Following the implementation of the modified software, 50 consecutive discharge summaries were retrospectively reviewed for: Documentation of COVID-19 result. Documentation of self-isolation advice for patient.

Results: Following the software amendment, 91% of discharge summaries included COVID-19 test result (up from 27%) and 100% included documented self-isolation advice for the patient (up from 2%).

Conclusions: Simple modification of the existing IT system greatly improved compliance with COVID-19 test result and self-isolation advice documentation on discharge summaries. A further software update since the study has added a tab "awaiting results," to cater for patients discharged prior to COVID-19 test result becoming available. We propose all hospitals consider adopting similar measures in the interest of infection prevention, public safety and potential medico-legal sequelae.

PV249 / #1340

INFECTIONS IN NON "COVID-19" PATIENTS IN A PORTUGAL'S TERTIARY HOSPITAL - PRELIMINARY DATA

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Background and Aims: In December 2019, an outbreak of coronavirus disease was identified and later declared as a public health emergency of international concern. Preventive measures were adopted like empowering the use of personal protective equipment. Taking in account the measures applied, a decrease in the number of infections, particularly multidrug resistant (MDR) ones, would be expected in "non COVID-19" patients. The aim of this study was to compare the number of infections, particularly MDR infections, between a routine period in 2019 and the same period in 2020 with the pandemic in course in an Internal Medicine ward, for "non COVID-19" patients and understand responsible causes.

Methods: Retrospective observational study carried out through the analysis of digital data of all "non COVID-19" patients admitted at an Internal Medicine ward in April 2019 and April 2020. The statistical analysis was performed using the SPSS statistical package version 25 and Microsoft Excel 2018.

Results: 162 patients were included. 2020 group represented 36.4% of the patients. Decompensation of respiratory diseases were the most common cause of hospitalization in both groups (44.7% in 2019 vs 42.4% in 2020). The number of MDR infections was higher in the 2020 patient group (10.2% vs 8.7%), however

the difference was not statistically significant ($p=0.762$).

Conclusions: Due to the measures implemented a significant reduction in the number of MDR infections would be expected compared to a past period. However, this is not the case in the 2020 sample. The next step is to increase the sample in study in order to see if the results remain the same.

PV250 / #1380

THE IMPACT OF COVID-19'S PANDEMIC ON A NON-COVID INTERNAL MEDICINE WARD

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Background and Aims: In Portugal, the coronavirus pandemic State of Emergency was declared on March 19, extending until May 2, and during this period healthcare services endured many challenges. In our hospital, the Internal Medicine department had significantly fewer physicians because of COVID-area allocation, prophylactic isolation, and sick leave. The purpose of this study was to compare non-COVID admissions during lock-down and patient outcomes with the same period in the previous year.

Methods: An observational retrospective study was designed. Patients admitted to the Internal Medicine ward between March 19 and May 2 of 2019 and 2020 were included. The following data were collected: gender, age, autonomy, type of residency, where from was the patient admitted, length of hospital stay, main diagnosis, the need of intensive care or non-invasive ventilation, case mix index, and mortality rate.

Results: There was no significant difference in gender, age, autonomy, or case mix index between patients admitted in 2019 and 2020. Admission at our ward suffered an 18.2% reduction (308 in 2019 vs 252 in 2020) and there were significantly fewer patients admitted because of respiratory diseases (42.9% in 2019 vs 31.7% in 2020, $p < 0.05$).

Conclusions: Even though there was a significant reduction in patient admissions, patients treated in the Internal Medicine ward had no worse prognosis in 2020 than in 2019. The reduction in respiratory diseases may have several explanations, such as the population isolation imposed by the State of Emergency and the wide use of respiratory hygiene measures, mainly the use of face masks.

PV251 / #1387

DIGESTIVE MANIFESTATIONS OF COVID-19: A PROSPECTIVE STUDY OF 160 PATIENTS

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Background and Aims: Coronavirus disease is an emerging pandemic with polymorphic presentation. Although respiratory manifestations are the most commonly reported, limited data are available for digestive symptoms. Our study aimed to determine the prevalence of digestive manifestations and to describe their evolution in Algerian population.

Methods: We carried out a single center prospective descriptive study of hospitalized patients between April 5, 2020 to June 30, 2020. All the anamnestic, biological and morphological data were collated and analyzed using SPSS V22. All patients received hydroxychloroquine, Azithromycin, and vitamin supplementation. For severe forms; anticoagulant treatment has been added, antibiotic therapy, corticosteroids, and oxygen therapy.

Results: We included 160 patients. The male/female ratio was 0,92 ,the median age was $48,87 \pm 14,33$ years. The prevalence rate of digestive symptoms was 53% (37 men and 48 women) dominated by: ageusia (57%), anorexia (49.5%), diarrhea (47%), vomiting (32%). 25,8% of these patients had abnormal liver tests on presentation (AST-ALT reference range: 0-35 units/L). The mean rate of AST was ($26,4 \pm 27,5$) UI/L, of ALT was ($23,15 \pm 26$) UI/L. 65% of these patients presented with both digestive and respiratory features; CT visual quantitative evaluation assessed the pulmonary involvement as $< 25\%$ in 86% of cases, 25-50% in 11% of cases, 50-75% in 3% of cases .The onset of digestive disorders after treatment was observed in 17.5% of patients such as diarrhea (11,8%), nausea and vomiting (5%).

Conclusions: Gastro-intestinal manifestations of COVID-19 are common, whether related to the viral agent itself or secondary to treatment. Their evolution is favorable in all cases attesting to their benign, transitory and non-specific character.

PV252 / #1397

SUBACUTE THYROIDITIS FROM A COVID-19 INFECTION: CASE REPORT

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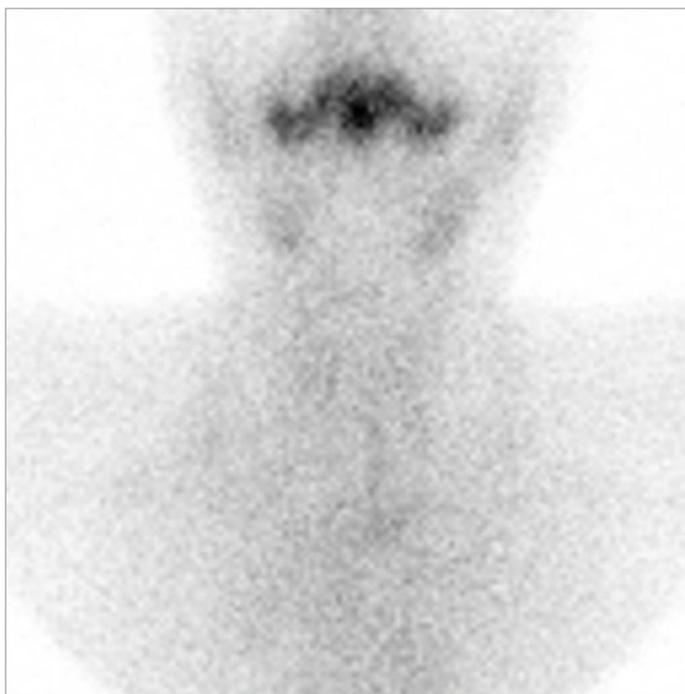
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Case Description: A thirty-three years old female patient was admitted to the ICU for mild respiratory distress and sinus tachycardia with a heart rate of 150 bpm following SARS-CoV-2 infection. She had a 38.5°C fever and an altered metabolic panel with increased reactive C protein (7.0 mg/dL), low TSH (0.015 uUI/ml) and high free T4 (2.39 ng/dL).

Clinical Hypothesis: SARS-CoV-2 Related Subacute thyroiditis

Diagnostic Pathways: On exams from two months prior the



#1397 Figure

patient had normal TSH (1.34 uIU/ml) and free T4 (1.18 ng/dL). This prompted a scintigraphy with Tc99m which revealed a thyroid gland with imprecise limits and diffusely reduction of radiotracer concentration, compatible with subacute thyroiditis (Figure #1397). The patient could be discharged after stabilization of heart rate and a 48 hours period without fever. She was then instructed to maintain respiratory isolation at home.

Discussion and Conclusion: SARS-CoV-2 symptomatic infections can range from mild to severe and an increasing number of reports have shown its potential to promote severe extra-pulmonary manifestations. While most thyroid function test alterations in the critical ill patient correspond to non-thyroidal illness syndrome, the rising incidence of thyrotoxicosis in patients admitted to ICUs because of COVID-19 is likely a consequence of viral infection. Clinicians must therefore consider such possibility as early recognition and timely anti-inflammatory therapy are key for successful therapy.

PV253 / #1399

SARS-COV-2 LEADING TO ACUTE PANCREATITIS: AN ATYPICAL PRESENTATION

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Case Description: A 60 year old man was admitted with a continuous, non-radiating pain in the upper abdomen. He denied fever or diarrhea. Mild respiratory symptoms had started two days before. Review of systems was unremarkable. He had abstained from alcohol use for 23 years and was submitted 13 years ago to a colecistectomy. He had type 2 diabetes treated with metformin and gliclazide. He had stopped oral Vildagliptin two months prior for economic reasons. Physical examination showed mild dehydration and discomfort on abdominal palpation. He had no palpable masses, jaundice or respiratory distress.

Clinical Hypothesis: An elderly man who presented with SARS-CoV-2 associated acute pancreatitis.

Diagnostic Pathways: Laboratory tests showed elevated lipase (6,000 U/L) and amylase (2100 U/L); γ -glutamyl transferase was discreetly elevated (35 U/L). Transaminases (ALT 23 U/L; AST 20 U/L), IGG4 (25.9 md/dL) and triglycerides (157 mg/dL) were normal. Contrast-enhanced Computed Tomography revealed acute interstitial pancreatitis and ground-glass opacity in left pulmonary inferior lobe (Figure #1399).

Abdominal magnetic resonance and ultrasound imaging did not show biliary lithiasis. RT-PCR in Nasopharyngeal swab for SARS-CoV-2 was positive. He was treated with fasting, intravenous fluids and analgesics for pain relief. The patient improved clinically and pancreatic enzymes returned to normality levels. He was discharged after 12 days to outpatient follow-up.

Conclusions: and discussion Acute pancreatitis associated with SARS-CoV-2 infection has been reported. In this case, we described a patient that developed pancreatitis during COVID-19 disease, and had no risk factors other than previous intake of a dipeptidyl peptidase 4-inhibitor.



#1399 Figure

PV254 / #1400

CLINICAL RECURRENCE OF COVID-19 40 DAYS AFTER RECOVERY

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Background and Aims: COVID-19 has a vast spectrum of clinical manifestations, from asymptomatic contamination through different degrees of organ dysfunction to death. We present here a case of clinical recurrence of COVID-19 40 days after recovery in a 36-year-old male on remission from diffuse large B-cell lymphoma.

Methods: Case report.

Results: 40 days after recovery the patient presented with a high fever and a right upper lobe infiltrate, swab test for COVID-19 were negative. Treatment for community-acquired pneumonia was initiated. The patient did not respond to therapy and developed bilateral pneumonia. We performed an evaluation for other sources of infection, less common and opportunistic, no pathogen was found. A whole-body 18F-FDG PET/CT finding made the likelihood of lymphoma recurrence less likely, the likelihood of bacterial or fungal infection was low due to a lack of response to empiric extended-spectrum antibiotics with anti-fungal therapy. The clinical and radiological findings together with positive SARS-CoV-2 PCR in BAL specimen were consistent with the recurrence of COVID-19. The diagnosis is also supported by the splenic infarction demonstrated on a 18F-FDG PET/CT.

Conclusions: The scientific community is rapidly accumulating knowledge about the clinical, biochemical, and radiological features of COVID-19, however, data on COVID-19 recovered patients remains limited. As physicians, we refer to patients' symptoms in the context of their medical history. Considering the weight of this ongoing global pandemic we now face a new kind of patients, patients that have recovered from COVID-19. We hope that this case may contribute to gaining more knowledge on this growing patient population.

PV255 / #1413

DELIRIUM IN A COVID-19 GENERAL WARD

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Background and Aims: Delirium is a transient reversible mental dysfunction associated with acute illness, is frequently underrecognized outside intensive care units, and more often affects elder frail patients. COVID-19 infection may be severe in younger healthier patients and may be associated neurologic manifestations. We aim to evaluate the incidence of delirium in acute COVID-19 patients admitted to a general ward and compare them with acute COVID-19 without delirium.

Methods: Patients were screened using brief confusion assessment method during the first 48h of admission. Patients with moderate to severe dementia were excluded. COVID-19 WHO severity classification, Karnofsky performance status, days of symptoms, chronic medication and comorbid conditions were analyzed.

Results: Thirty-two patients were studied. Delirium incidence was 31.3%; the patients were elder (79.3±12y versus 69.5±9y); female gender prevailed (38.5% versus 26.3%); symptomatic disease duration before admission was shorter (6.8±3 days versus 8.1±3 days). Delirium sub-group did not have a more severe disease. Dementia, cerebrovascular disease and lower performance status were more frequent in the delirium sub-group. However, 50% of the patients that presented with delirium had a 100% Karnofsky, no dementia nor cerebrovascular disease and had younger age (75±15y). Patients that presented delirium had fewer vascular risk factors. Chronic benzodiazepines, antidepressants, anti-psychotic medications were also less frequent in the delirium subgroup.

Conclusions: Contrary to what has been studied in delirium, COVID infection may induce delirium in patients with fewer frailties and younger age. This study enhances the need for tight screen in all COVID-19 patients in general wards so early intervention can be made.

PV256 / #1425

LUNG ULTRASOUND AS A MONITORING TOOL AFTER IMMUNOMODULATORY TREATMENT IN A PATIENT WITH SEVERE COVID-19 PNEUMONIA

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Background and Aims: The SARS-CoV-2 pandemic has been a challenge for any health system. The so-called cytokine storm, characterized by respiratory deterioration and elevation of acute phase reactants, is a common complication of COVID-19 that extends hospital stay. It is vital to protocolize forms of work that shorten, as far as possible and without sacrificing the patient safety, the hospital stay and thus avoid the collapse of our hospitals.

Methods: A physical examination including respiratory rate and oxygen saturation by pulse-oximetry was made before starting treatment, in addition to a blood analysis including C-reactive protein, ferritin and D-dimer levels, as well as a chest X-ray and

a lung ultrasound (LUS). These explorations were repeated one week after starting treatment (Table #1425).

Results:

Parameter	Before treatment	One week after treatment started
Oxygen Saturation by pulse-oximetry (without exogenous contribution)	89%	96%
Respiratory rate	24 per minute	14 per minute
C-reactive protein	142 mg/L	4 mg/L
Ferritin	536 ng/mL	438 ng/mL
D-dimer	4 mg/L	2 mg/L

#1425 Table: Laboratory results.

Conclusions: We found an earlier improvement in LUS, as opposed to worsening in chest X-ray, but consistent with clinical and analytical improvement. Thus, discharge based on the normalization of LUS findings could shorten the length of hospital stay.

PV257 / #1449

GUILLAIN BARRE SYNDROME WITHIN COVID-19 INFECTION: A CASE REPORT.

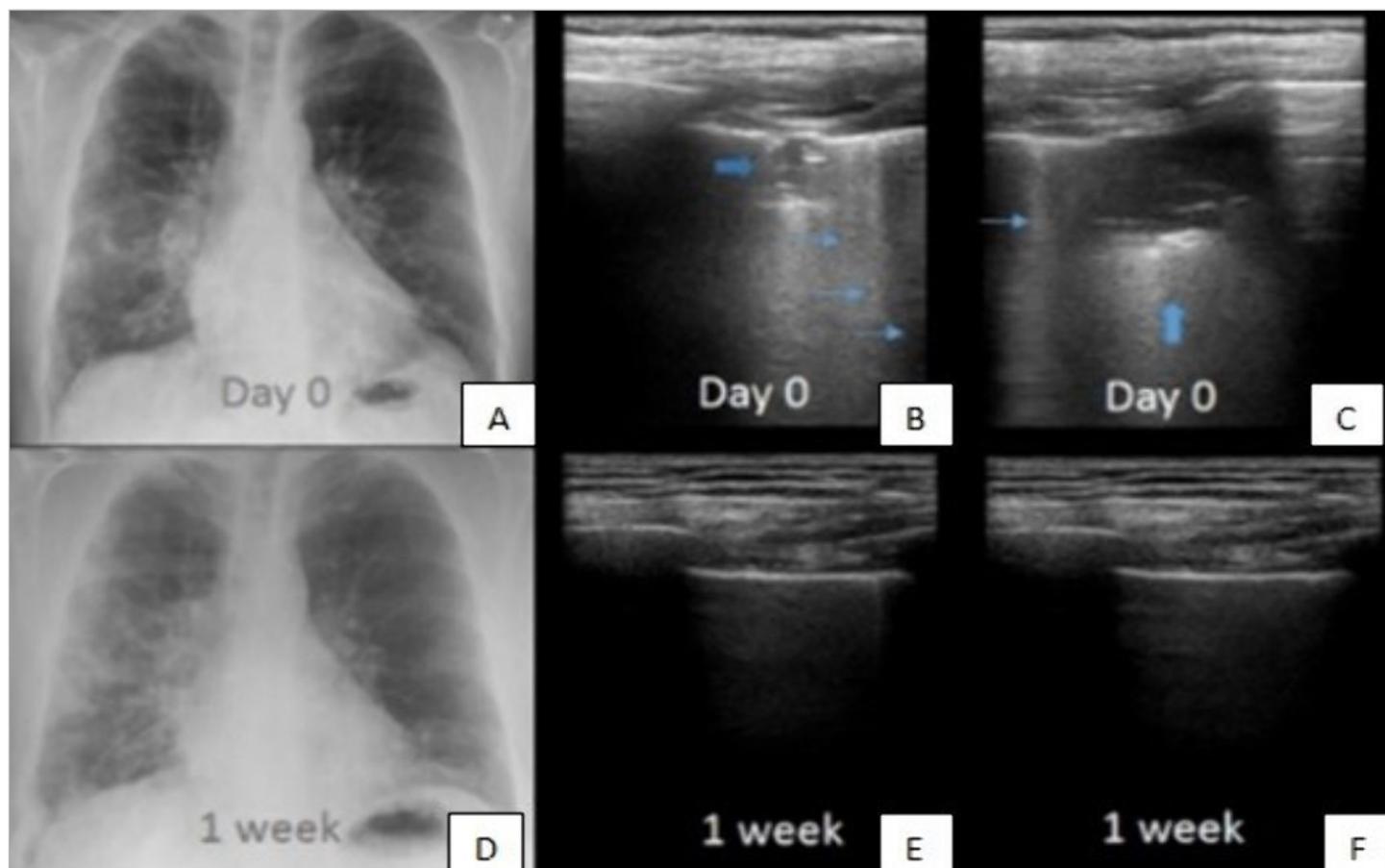
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Case Description: The authors describe the case of a Guillain Barre syndrome (GBS) in a patient infected with SARS-CoV-2. An 85-year-old female patient, with known medical history of congestive heart failure and arterial hypertension, was admitted in the Emergency Department due to shortness of breath and cough for the past week, and presenting acute progressive symmetric ascending quadriparesis in the two days prior to hospitalization. At that time, the symptoms progressed from distal limbs to proximal limbs affecting with greater severity both arms. Reverse transcription-polymerase chain reaction (RT-PCR) for SARS-CoV-2 was reported positive. Chest x-ray and blood analysis were normal. Arterial gasometry revealed hypoxemia. During the first day of hospitalization the neurological symptoms worsened



#1425 Figure: Chest X-ray (A and D) and LUS (B, C, E and F) findings. LUS before treatment (B and C) showed subpleural consolidations (thick blue arrows) with pleural line thickening and multiple B-lines (thin blue arrows). 1 week after treatment chest X-ray showed worsening, while no consolidations, pleural abnormalities or pathological B-lines were observed by LUS.

and the patient developed urinary dysautonomia and dysphagia.

Clinical Hypothesis: GBS

Diagnostic Pathways: A lumbar puncture was performed and analysis of Cerebral Spinal Fluid (CSF) revealed slight albuminocytologic dissociation. RT-PCR testing in the CSF for neurotropic viruses was negative as well as SARS-CoV-2. Head Computed-tomography showed no alterations. Treatment with intravenous human immunoglobulin led to progressive improvement of the quadriparesis in the following weeks.

Conclusion and Discussion: Viral infections are frequently diagnosed in the days or weeks preceding the diagnosis of GBS. Multiple studies on coronaviruses have shown that these viruses have neurotropic characteristics and molecular mimicry is one of the mechanisms through which SARS-CoV-2 could have induced inflammatory demyelinating neuropathy, even though the SARS-CoV-2 RT-PCR in the CSF was negative. Further investigations should be performed about the role of SARS-CoV-2 in GBS.

PV258 / #1450

BILATERAL INTERNUCLEAR OPHTHALMOPLEGIA ASSOCIATED WITH SARS-COV-2 INFECTION

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Background and Aims: A 54-year-old man presented with acute onset oblique binocular diplopia, preceded by a self-limited episode of diarrhea the day before. The neurologic examination showed skew deviation with hypertropic right eye and bilateral internuclear ophthalmoplegia (INO). Physical examination was otherwise unremarkable.

Methods: INO can be caused by ischemia, infection, demyelinating disease, neoplasms and autoimmune diseases.

Results: The brain computed tomography (CT) scan with contrast was normal, as well as standard blood tests. Brain MRI and CSF studies were normal. Stool microbiologic study was negative. The patient tested negative for HIV, VDRL, hepatitis A, B and C viruses, CMV, *Borrelia*, botulism and IGRA test. RT-PCR for SARS-CoV-2 was negative. Autoimmunity panel tests, including acetylcholine receptor antibody, anti-MuSK, anti-GQ1b and onconeural antibodies, were within normal range. A 5-day course of high-dose intravenous methylprednisolone was started with progressive improvement of symptoms and resolution of diplopia. One week after hospital discharge the patient performed a serologic COVID-19 test which was positive for both IgG and IgM, with negative RT-PCR test.

Conclusions: Neurologic manifestations, including ophthalmoparesis, have been described in COVID-19 patients,

either due to immune mediated response or direct viral invasion of the central nervous system. INO is a clinical finding highly specific of damage in the medial longitudinal fasciculus in the brainstem. Despite the lack of imaging findings, the dramatic clinical response to anti-inflammatory therapy seen in our case points towards an immune mediated mechanism. After extensive negative workup, the serologic positive test suggests a potential relationship between a bilateral INO and SARS-CoV-2 infection.

PV259 / #1453

DYNAMIC PREDICTIVE PARAMETERS TO FORECAST COVID-19 PATIENTS' OUTCOME

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Background and Aims: The independent prognostic value of PaO₂/FiO₂ ratio and inflammatory biomarkers elevation, over time, among patients with SARS-CoV-2 infection is not yet studied. We wondered to find a prognostic risk score for predicting the poor clinical outcome of infected patients. The purpose of our prospective observational study was to assess the patients' respiratory function by PaO₂/FiO₂ ratio with the inflammatory biomarkers CRPs, LDH, NLR and PLR, at the day of hospitalization, at day 3 and day 7, for predicting the outcome of patient affected by COVID-19 pneumonia.

Methods: 150 patients presented positive to RT-PCR assay from nasopharyngeal swab sample and chest CT. We categorized patients in the two populations considering the global clinical status accordingly to the World Health Organization. Patients belonging the population "A" presented with mild disease, whereas population "B" presented a severe disease. We found a significant and predictive correlation between PaO₂/FiO₂ ratio and the critical clinical status of the population "A" and "B".

Results: PaO₂/FiO₂ ratio was more reliable as prognostic biomarker than all the analysed inflammatory parameters. The optimal cut-off values calculated by the AUC curve (sensitivity 75%, specificity 85.25%, LR+ 4.866, LR- 0.339) and the cut-off value to distinguish population "A" from "B" was <274 mmHg.

Conclusions: PaO₂/FiO₂ ratio was a good predictor of the development of severe acute respiratory distress syndrome (ARDS) in COVID-19 patients. PaO₂/FiO₂ ratio <274 mmHg should be considered a useful parameter for the early identification of patients who require closer respiratory monitoring and more aggressive supportive therapies to avoid poor prognosis.

PV260 / #1472

PULMONARY EMBOLISM IN PATIENTS WITH CORONAVIRUS DISEASE-19 PNEUMONIA IN A PORTUGUESE HOSPITAL

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Background and Aims: SARS-CoV-2 infection (COVID-19) is associated to pro-thrombotic events. Pulmonary Embolism (PE) is the most frequent and life-threatening event, with an incidence that varies between 1,9 to 8,9%. Male preponderance (60%) with median age of 59 years old. The median time between onset of symptoms and diagnosis of PE was 11 days. Our aim is characterizing a sample of patients admitted to a peripheral hospital with PE and COVID-19.

Methods: Retrospective observational cross-sectional study of hospital discharged patients in the period between 01st to 30th of November 2020, diagnosed with PE and COVID-19. Data was recorded in Microsoft Excel® 2016.

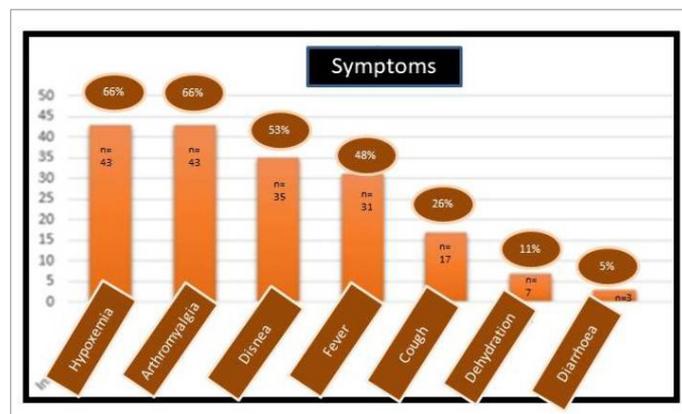
Results: Eight patients were included out of 448 patients with COVID-19 admitted to the Internal Medicine service (incidence of 1.79%). Mean age was 62±15 years, with male prevalence (N=7;87,5%). Mean time between diagnosis of COVID-19 and diagnosis of PE was 9±11 days. The most common risk factors were obesity and/or previous PE or deep venous thrombosis (DVP) [25% of the cases]. Dyspnea was the most prevalent symptom (75% of the cases). Treatment was enoxaparin in 50% and new oral anticoagulants in the other half.

Conclusions: The incidence was lower compared to the literature, perhaps because we attributed the respiratory failure to COVID-19 pneumonia and computed tomography angiogram was not routinely performed. In addition our sample is smaller, however is comparable to the literature both in sex prevalence and average time of diagnosis, which means that the already published approach and treatment could be applied.

medical care. The variables analysed: age, sex, medical background, symptoms and treatments.

Results: Total residents 216. COVID-19 infected 44%. Average age: 80 years±10. Females 60%. Hypertension 63%, diabetes mellitus 36%, dyslipaemia 35%. The 92% met criteria for pluripathology: Category E 87%, category A 23%, category C 11% [*Selection bias in category B because there is no record of chronic renal disease and/or plasma creatinine levels]. The majority, 84%, were self-care dependent (Barthel <60). Diagnostic studies: PCR (nasopharyngeal exudate) performed in 90%, of which 94% were PCR positive. Serology (IgM in plasma) performed in 15% were all (100%) positive. Treatments: 83% received some treatment: Hydroxychloroquine 97%, azithromycin 88%, low flow oxygen therapy 38%, other antibiotics 38%, oral corticoids 16% and fluid therapy 6%.

Conclusions: Nursing homes are a major population source of COVID-19 infection. The most vulnerable clinical profile was female, dependent, hypertensive and with a higher degree of cognitive impairment. The most common symptom was respiratory failure. After 9 months and some recent studies, they allow to know the most vulnerable clinical profile and to avoid the use of treatments such as hydroxychloroquine and azitrimycin whose efficacy has not been demonstrated.



#1496 Figure

PV261 / #1496

CLINICAL PROFILE OF ELDERLY RESIDENTS INFECTED BY COVID-19 IN A NURSING HOME.

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Background and Aims: The Spanish Society of Geriatrics and Gerontology considers the elderly a high-risk group in the COVID-19 infection. Our objective was to know the clinical-epidemiological characteristics of those affected in a nursing home in Jerez de la Frontera as well as the medical work carried out in them.

Methods: Retrospective study, only one centre, March-April 2020. Population: affected by COVID-19 in a nursing home with

PV264 / #1555

ASSOCIATION BETWEEN REMDESIVIR AND MORTALITY AMONG CRITICALLY-ILL COVID-19 PATIENTS-A META ANALYSIS

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Background and Aims: Remdesivir is the first drug to get USFDA approval for the treatment of coronavirus. The WHO, however, continues to warn against its use after the poor SOLIDARITY trial results. This has led to a state of dilemma for doctors leaving them skeptical of whether they should continue to recommend the drug or not. Furthermore, the European Society of Intensive Care Medicine has recently advised against Remdesivir for critically-ill COVID-19 patients discouraging its use in intensive care units. Whether Remdesivir can be used for all types of COVID-19 patients is of extreme interest.

Methods: Electronic bibliographic databases (PubMed, Scopus, Embase) were searched from inception until December 1st, 2020. Using dichotomous data for select values, the unadjusted odds ratios (ORs) were calculated applying Mantel Haenszel (M-H) using random-effects model. The primary outcome of interest was all-cause mortality in ventilated and non-ventilated patients.

Results: A total of five studies with 7133 patients (Remdesivir=3627, Placebo=3506) were included. The Remdesivir arm was associated with similar rates of 28-day all-cause mortality (OR 0.93, 95%CI: 0.80-1.08, p=0.33; I²=0) and >3 adverse events (OR 0.68, 95%CI 0.64-1.00, p=0.05; I²=0). However, Remdesivir was not found to be favorable for ventilated patients. Non ventilated COVID-19 patients showed a significant lower in-hospital mortality rate as compared with patients requiring mechanical ventilatory support (OR: 6.86, 95%CI 5.39-8.74, p <0.00001; I²=0)

Conclusions: Non-ventilated patients were associated with significant lower all-cause mortality rates. Prudent use of Remdesivir is recommended in Critically ill COVID-19 patients. Given the remdesivir's unclear benefits, future studies are warranted focusing on its efficacy and safety for different types of COVID-19 patients.

PV265 / #1585

COVID-19 ASSOCIATED CUTANEOUS SMALL-VESSEL VASCULITIS

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Background and Aims: COVID-19 pathogenesis is not entirely understood. Cutaneous manifestations are being increasingly reported. We present a 75-year-old female patient with a history of heart failure of ischemic origin. She was diagnosed with hospital-acquired COVID-19 after elective ventriculoplasty. She developed a mild form of disease with worsening of dyspnea and dry cough. Blood tests revealed a maximum C-Reactive Protein of 103.5 mg/L, ferritin of 380, 39 ng/mL, and 3,666 D-dimer. Chest computed tomography revealed peripheral and peribronchovascular ground glass opacities in the lungs. 13 days after diagnosis she develops bilateral knee palpable purpura. No new drugs were initiated previously to lesion development.

Methods: Knowing that SARS-CoV-2 can cause different skin manifestations, our first hypothesis was COVID-19 associated small-vessel cutaneous vasculitis.

Results: Etiological study showed a sedimentation rate of 105mm/h, negative serology for syphilis, CMV, EBV, HIV, hepatitis B and C and *Parvovirus* B19. ANAs, ANCA and rheumatoid factor search was negative. Skin biopsies were performed 4 days after appearance, under treatment. Histology analysis was ongoing at submission time. A diagnosis of SARS-CoV-2 infection associated small vessel cutaneous vasculitis was established. The patient had total symptom resolution without COVID-19 directed treatment. Betamethasone cream was applied twice a day. Purpuric lesions disappeared after 14 days.

Conclusions: SARS-CoV-2 has a multisystemic involvement. We present a case of cutaneous small vessel vasculitis associated with SARS-CoV-2 infection. This was the most likely clinical scenario given the exclusion of other etiologies. Cutaneous manifestations associated with COVID-19 are rarely reported and likely underdiagnosed. We emphasize the need for documentation for better recognition on clinical practice.

PV266 / #1602

HEADACHE AND NEW-ONSET SEIZURES IN A PATIENT WITH SICKLE-CELL ANEMIA AND COVID-19 - IS IT A POSTERIOR REVERSIBLE ENCEPHALOPATHY?

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Case Description: A 32-year-old female with sickle cell anemia (SCA) was admitted due to acute thoracic syndrome (ACT), with 3,4 g/dL haemoglobin. She received standard ACT therapy,

obtaining full recovery. At the 10th day she was diagnosed with COVID-19, with mild hypoxemic respiratory failure, underwent a 5 day-course of dexamethasone and fully recovered. At the 17th day, develops intense uninterrupted headaches, undergoes non-enhanced brain CT-scan (19th day) which was normal. At the 20th day she maintained headache and reported visual hallucinations, followed by ocular retroversion, depressed consciousness, confusion and combative behavior, with spontaneous recovery after 45 minutes. Her blood pressure (BP) that have remained normal up to then increased to a maximum of 160/90 mmHg. She received 1 g levetiracetam but after 4 hours developed right homonymous hemianopsia, followed by tonic-clonic seizures.

Clinical Hypothesis: Due to her background and sudden onset of symptoms, clinical differentials were venous sinus thrombosis or PRES

Diagnostic Pathways: Enhanced CT-Scan excluded vascular occlusion, showed left parieto-occipital parasagittal vasogenic oedema. Brain MRI: cortical-subcortical left and minor right parieto-occipital hyperdensities, sulcal frontal upper left hyperdensity, at T2/FLAIR. At this point PRES and reversible vasoconstriction syndrome (RVCS) were considered. The patient maintained normal BP without pharmacologic control and was asymptomatic after 12h, under valproate.

Conclusion and Discussion: PRES and RVCS are rare and share clinical and radiologic features. Clinically this patient behaves as a PRES but MRI findings are asymmetric, which is possible but less frequent in PRES. PRES as been scarcely described in SCA patients and during crisis, and also in COVID-19 patients but in the context of multi-organ-failure.

PV267 / #1630

CHIMEROVID-19 - WHEN THE BEAST TARGETS THE HEART

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Background and Aims: “Coronavirus Disease 2019” (C-OVID-19) is an infectious disease mainly distinguished for its pulmonary and systemic hyperinflammatory stages. COVID-19 can also cause an “Acute COVID-19 cardiovascular syndrome” (ACovCS), whose presentation, etiology and prognosis are not yet completely understood.

Methods: Case-report of a patient with ACovCS in the early pandemic phase.

Results: A 20-year-old healthy woman was admitted with gastrointestinal symptoms and fever (38.9°C) with a 4-day evolution course. At admission she had no remarkable findings. An abdominopelvic CT revealed bilateral pulmonary ground glass opacities, and a PCR test for SARS-CoV-2 became positive. Hypotension and peripheral hypoperfusion signs emerged, and intensive fluid therapy was started, with following development

of congestive refractory shock and respiratory failure, followed by further CRP (44 mg/dL) and NT-proBNP elevation (10.600 pg/mL). A chest CT revealed bilateral pneumonia and pleural effusion and a TTE mildly decreased systolic function with global hypokinesia and LVEF of 50%. COVID-19 pneumonia with a new-onset congestive heart failure and respiratory failure was admitted. The combination of diuretics with vasopressor support and invasive mechanical ventilation for 48 hours lead to hemodynamical stabilization and congestion, NT-proBNP and left ventricular improvement, besides CRP still severely elevated (43.74mg/dl). The patient was discharge with clinical and laboratorial (NTproBNP 730 pg/ml and CRP 4 mg/dl) recovery.

Conclusions: ACovCS reflects a spectrum of cytokine injury, myocarditis, stress-related cardiomyopathy and microvascular injury, and could explain the worse prognosis seen in COVID-19 compared with other viral pneumonias. In this case, the clinical and analytical signs improvement after diuretic therapy besides systemic inflammatory maintenance supports the importance of adequately recognizing ACovCS.

PV268 / #1640

BILATERAL FIBULAR NEUROPATHY IN A PATIENT SURVIVING COVID-19

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Background and Aims: Long-term hospitalization in intensive care unit (ICU) is frequently related to neuromuscular atrophy primarily due to immobilization and sedation. Patients with Coronavirus disease 2019 (COVID-19) remain intubated for several days in the ICU environment; supportive management includes prone positioning for several hours a day which could result in pressure damage in peripheral nerves of the lower extremities.

Methods: A 67 year old male presented with fever and abdominal pain of two days' duration. The RT-PCR test was positive for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and the patient was admitted in the Infectious Diseases Unit. Due to acute respiratory derailment the patient was intubated and transferred to ICU. The patient improved during his stay in ICU and was transferred back to clinic ward for further hospitalization after 25 days. Hospital acquired infections and electrolyte imbalances were corrected. However, there was evidence of extensive muscular atrophy of the lower extremities accompanied by signs of peripheral neuropathy (hypoesthesia, burning sensation, constant pain and squeezing sensation), despite significant improvement in motor state (3 to 4/5 compared to 1/5 in admission).

Results: An electromyography indicated peripheral neuropathy

with bilateral fibular distribution caused most probably by extensive prone positioning resulting in peripheral nerve damage, particularly in the more superficial proximal fibular nerve.

Conclusions: Peripheral neuropathy may complicate prolonged ICU hospitalization of COVID-19 patients. Besides well-established risk factors (immobilization, sedation, malnutrition, weight loss), prone positioning for severe respiratory distress comprises an additional aggravating factor for peripheral neuropathy in these patients.

PV269 / #1653

NASOGASTRIC FEEDING OF CRITICALLY ILL PATIENTS WITH COVID-19 WHILST PRONE

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Background and Aims: Prone positioning is frequently used when ventilating patients with COVID-19. This presents a challenge to meet nutritional requirements without causing harm through of enteral feed whilst prone. We aim to determine what proportion of time patients are fed when prone and improve this safely whilst monitoring for adverse events.

Methods: Data was collected retrospectively from prescriptions and observation charts of patients who were ventilated prone. The number of prone events, their duration and the time enteral feeding was administered whilst prone was recorded. The presence of contraindications, complications and prokinetic use was noted. The British Dietetic Association's Enteral Feeding in Prone Position guideline was adapted to local needs and implemented. Prone events following this were recorded in the post-intervention arm. A standard of receiving nutrition for 70% of the time prone was established based on the guideline.

Results: 36 patients were ventilated prone prior to the intervention. Feeding occurred for 49.2% of the 1553.5 hours of prone ventilation. The standard was met for 6 patients (16.7%). 10 patients were ventilated prone post-intervention. Feeding occurred for 56.5% of the 656 hours of prone ventilation. The standard was met for 3 patients (30%). Prokinetic use increased from 53% to 100% of patients. The absence of a safe nasogastric tube was the most common contraindication to feed. No complications of prone feeding occurred.

Conclusions: Enteral feeding can continue safely in COVID-19 patients ventilated prone. Implementing a guideline informs best practice for patient positioning, timing of feeds and starting prokinetics to minimise the risk of complications.

PV270 / #1669

A SIMPLE AT-BEDSIDE AVAILABLE SCORE TO PREDICT UNFAVOURABLE PROGNOSIS IN PATIENTS WITH COVID-19 PNEUMONIA

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Background and Aims: Several scoring systems were been investigated to predict prognosis in patients with COVID-19 pneumonia but their usefulness is often limited in the everyday-clinical practice. We developed a simple, easily available at-bedside score according oxygen saturation and age called ERCAZ. The aim of the study was to evaluate the prognostic performance of ERCAZ in predicting mortality in two independent populations.

Methods: ERCAZ score is based on peripheral arterial oxygen saturation assessed by pulse-oxymeter at hospital admission (SpO_2) and age. The score formula is: SpO_2 (value excluding percent) - age (years). We, retrospectively, tested the prognostic performance of ERCAZ in independent cohorts of patients with COVID-19 pneumonia in the hospitals of two town of Northern Italy, Crema and Lecco. Lecco's population included 107 consecutive patients (mean age was 64 ± 15 years). Crema's population included 106 consecutive patients (mean age was 68 ± 12 years). The overall in-hospital mortality at Lecco and Crema was 23.4% and 28.3%, respectively.

Results: ERCAZ score was 32.9 ± 16 (min-max 1-80) in survivors and 8 ± 11 (-13-23) in non-survivors in Lecco's population whereas it was 30.1 ± 12 (0-62) in survivors and 9.5 ± 10 (-7-37) in non-survivors in Crema's population. Discrimination power according to the area under ROC curve of ERCAZ in predicting in-hospital mortality was 0.91 (95%CI: 0.85-0.97); $p < .001$ in Lecco's population and 0.85 (0.77-0.93); $p < .001$ in Crema's population.

Conclusions: ERCAZ is a simple and accurate score to predict unfavourable prognosis in patients with COVID-19 pneumonia.

PV271 / #1711

HOSPITAL AT HOME: AN EFFECTIVE TOOL TO AVOID HOSPITAL COLLAPSE DURING THE COVID-19 PANDEMIC

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Background and Aims: Navarre is a region of Spain, its biggest third-level hospital is the Complejo-Hospitalario-Navarra (CHN) (950 beds), which serves a population of 450,000-people. In the CHN, Hospital-at-Home-Unit is a part of the Internal Medicine

Department and in the last 5 years it has played an increasing role in hospital admissions, nowadays being up to 7.5% per year. The first two waves of the COVID-19 pandemic had a high impact in Navarre. The Hospital-at-Home-Unit was a fundamental tool to avoid hospital collapse.

Methods: Descriptive analysis of the first wave of the COVID-19 pandemic in our Hospital at Home Unit, its areas of action and its impact on the CHN hospital pressure.

Results: *Study period: 1/03/2020-30/04/2020 *Areas of action: 1-Hospital-at-Home-COVID sub-unit.

2-Nursing home patients.

3-Hospital at Hotel unit (medicalized hotel). *Admission criteria:

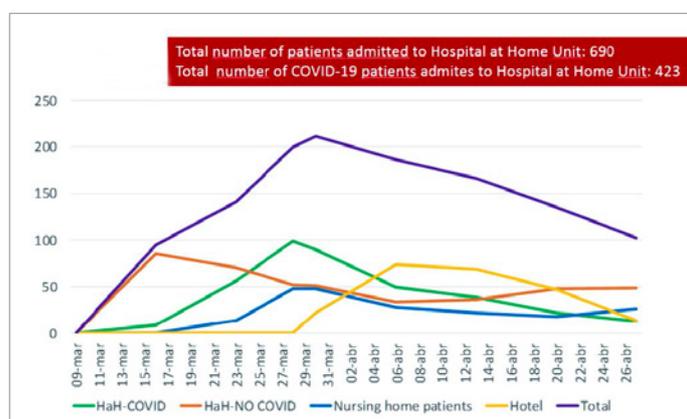
1-Patients with non severe or moderate pneumonia (CURB-65 <2 and oxygen saturation \geq 93% basal o with FiO₂ <0.35), with a short disease course and clinical, radiological or analitic admission criteria.

2-Patients with pneumonia who are candidates for conservative management at home.

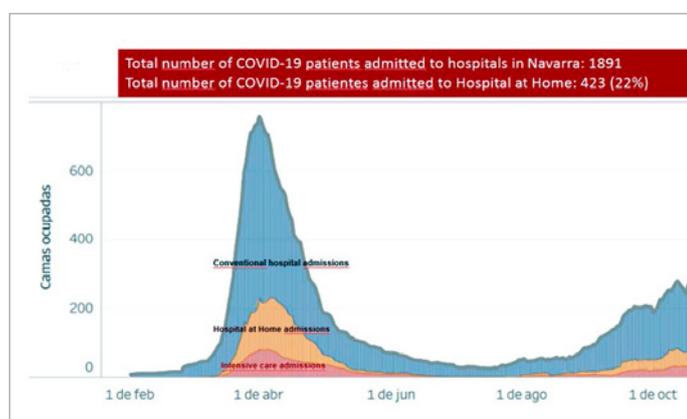
3- Patients with a favourable hospital clinical course, candidates for completion of treatment at home.

* 1- Total number of COVID-19 patients admitted to hospitals: Navarre:1891; CHN:1,347; Hospital-at-Home-Unit: 423

Conclusions: In times of pandemic the Hospital at Home Units could be a useful tool that can help to reduce hospital pressure in a safe, effective and low-cost way.



#1711 Figure A



#1711 Figure B

PV272 / #1741

CRYPTOGENIC ORGANIZING PNEUMONIA FOLLOWING SEVERE COVID-19, A CASE REPORT.

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Background and Aims: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection may cause severe pneumonia leading to hypoxemia. There have been reports of various forms of diffuse parenchymal lung disease (DPLD) as consequence of severe coronavirus disease 2019 (COVID-19). Cryptogenic organizing pneumonia (COP) is a form of DPLD often associated with pulmonary injury following infection or acute respiratory distress syndrome (ARDS). Herein, we describe a case of a patient with evidence of post SARS-CoV-2 COP.

Methods: A 60-year-old patient was admitted due to severe COVID-19. The patient was treated per protocol with intravenous (i.v.) dexamethasone for 10 days, antibiotics, anakinra subcutaneously (Interleukin-1 antagonist) for 10 days, low-molecular weight heparin and received respiratory support with the use of high flow nasal cannula. Despite initial stabilization and clinical improvement the patient remained severely hypoxemic with elevated serum inflammatory markers.

Results: Pulmonary embolism was excluded in two consecutive computed tomography pulmonary angiograms (30 days apart), that revealed extensive DPLD consistent with COP. The patient was started on prednisone 0.8 mg/kg/day per os with significant clinical and radiological improvement. Four days after prednisone initiation the patient's oxygen requirements declined and radiographic improvement evident from day 7 and resolution by day 30.

Conclusions: COP should be considered in patients with radiological findings of DPLD following severe COVID-19 and treated accordingly.

PV273 / #1748

EUGLYCEMIC DIABETIC KETOACIDOSIS INDUCED BY SARS-COV-2 INFECTION

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Background and Aims: The novel coronavirus (SARS-CoV-2) is reported to cause a pleiad of extrapulmonary complications. Various case reports and case series have shown that coronavirus disease 2019 (COVID-19) may induce diabetic ketoacidosis both in patients with either type 1 or type 2 diabetes mellitus as well as in previously healthy persons. Herein, we report the case of

euglycemic diabetic ketoacidosis induced by COVID-19.

Methods: An 81-year-old man presented to the emergency department (ED) due to decreased level of consciousness and agitation. The patient's history was notable for type 2 diabetes mellitus not adequately controlled by metformin and gliclazide. The patient's medications were recently (7 days prior to admission) changed to metformin/empagliflozin 1000/12.5 mg twice daily, gliclazide 60 mg daily and linagliptin 5 mg daily. During evaluation, a high anion gap metabolic acidosis was evident with near-normal glucose values (180 mg/dl). The patient was admitted to the internal medicine ward for further management.

Results: A chest X-Ray revealed bilateral ground glass opacities. No fever, cough or other infection-related symptoms were reported. A rapid RT-PCR nasopharyngeal swab tested positive for SARS-CoV-2. Standard diabetic ketoacidosis management protocol was applied with adequate subsequent response regarding both his mental status and laboratory abnormalities. The patient had an uneventful recovery and was successfully discharged.

Conclusions: This is a rare case of COVID-19-induced euglycemic ketoacidosis following the recent initiation of a SGLT-2 inhibitor. It is suggested that in the era of COVID-19 pandemic, the detection of diabetic ketoacidosis should prompt towards SARS-CoV-2 testing.

PV274 / #1755

HOSPITAL AT HOME (HAH) AS AN EXTENDED INTERNAL MEDICINE WARD FOR PATIENTS WITH COVID-19

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Background and Aims: COVID-19 represents a challenge for the capacity of the internal medicine wards. Having a HAH service based on hospital can help relieve pressure on internal medicine service during the coronavirus pandemic. We aimed to analyze the HAH activity for COVID-19 patients by avoiding or providing early discharge.

Methods: Retrospective single-center study of adult patients treated on a HAH service during the first wave of the coronavirus pandemic.

Results: Between 1st March and 30th April 2020, the HaH unit treated 467 patients with COVID-19 confirmed (62.7%) or suspected (37.3%). 377 were referred from internal medicine ward, 84 from emergency department and 2 from Primary Care. 275 (59%) were male: mean age 58.9 (17-97, SD 16.2; 145

patients <50 years old, 77 >75 years old). Most (385, 82.4%) were born in Europe (94.2% in Spain), 57 in South America, 15 in Africa. 170 (39%) suffered from hypertension, 79 diabetes, 60 COPD, 43 heart diseases, 46 obesity, 13 immunosuppression, 21 active cancer. Mean Charlson's index 0.81 (0-7, SD 1.37). Lung involvement: 36% unilateral; 61.5% bilateral, 2.5% without pulmonary infiltrates. Mean internal medicine ward length of stay (LOS): 7.45 days (0-42, SD 6.47; median: 6 days). Mean HAH LOS: 5.84 (1-47, SD 4.11, median: 5 days). Readmission before ending HAH episode: 11 (2.5%); deaths 2 (0.4%). Readmission 30 days within HAH discharge: 15 (3.2%); ED visits 46 (9.8%).

Conclusions: HAH is an effective and efficient strategy for extending an internal medicine ward for patient with COVID-19.

PV276 / #1805

LESSONS FROM PATHOPHYSIOLOGY: USE OF INDIVIDUALIZED COMBINATION TREATMENTS WITH IMMUNE INTERVENTIONAL AGENTS TO TACKLE SEVERE RESPIRATORY FAILURE IN PATIENTS WITH COVID-19 INFECTION

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Background and Aims: Aims: Infection by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) may lead to severe respiratory failure development. In hospitalized-patients, prompt and timely interruption of the virus-driven inflammatory process using combination treatments seems theoretically of utmost importance. Our aim was to investigate the hypothesis of multifaceted management of these patients.

Methods: A treatment algorithm based on ferritin was applied in 311 patients (67.2% males; median age 63-years; moderate disease, n=101; severe, n=210). Patients with ferritin <500ng/ml received anakinra 2-4 mg/kg/day±corticosteroids (Arm A, n=142) while those with ≥500 ng/ml received anakinra 5-8 mg/kg/day with corticosteroids and γ-globulins (Arm B, n=169). A single dose of tocilizumab (8 mg/kg; maximum 800 mg) was administered in case of no improvement with the potential of an additional second and/or third pulse. Treatment endpoints were the rate of respiratory failure development necessitating intubation and the

SARS-CoV-2-related mortality. The proposed algorithm was also validated in matched hospitalized-patients treated with standard-of-care during the same period.

Results: In overall, intubation and mortality rates were 5.8% and 5.1% (0% in moderate and 8.6% and 7.6% in severe). Low baseline pO_2/FiO_2 and older age were independent negative risk factors. 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 reactions were rare, including severe secondary infections in only 7/311 (2.3%).

Conclusions: Early administration of personalized combinations of immunomodulatory agents may be life-saving in hospitalized-patients with SARS-CoV-2. An immediate intervention (the sooner the better) could be helpful to avoid development of full-blown acute respiratory distress syndrome and improve survival.



AS05. EMERGENCY AND ACUTE CARE MEDICINE

PV277 / #199

TIME FROM FIRST SYMPTOM TO SYNCOPE STUDY – A SIGNIFICANT GAP IN DATA AND IN CARE

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Background and Aims: Time to diagnosis is central to patient care. A diagnosis within 12 weeks of the 2nd syncopal event for non-high risk syncope appears reasonable. The aim of this study was to measure time from 1st symptom to syncope study.

Methods: Consecutive patient data were entered prospectively onto a Microsoft excel database by a Medical Registrar or Consultant between 2012 and 2020. Data included patient age, gender, date of onset of symptoms and date of the study. Diagnostic rate was also measured over the same period of time. The time from symptom onset to date of study was compared during a set of interventions aimed at improving diagnostic rates.

Results: The average age of patients attending for syncope testing was 55 years (Range 14 to 92 years). Female to male ratio was 1.9:1. Data for time of onset of symptoms was complete for 59% (n=426) of patients. The average time from 1st symptom to syncope study was 2.9 years. The majority of patients had their syncope study 11-12 months after their first symptom.

Conclusions: The study was limited by an incomplete data set due to inconsistent data entry. Despite a quality improvement initiative resulting in excellent diagnostic rates in the absence of a web based algorithm, time to syncope study is too long. There is a need for a standardised ED and GP-practice approach to the diagnosis of syncope and for standardised data entry systems to drive future improvements in care.

PV278a / #1016

YOUNG MALES PRESENTING WITH 'REVERSIBLE' BRAIN DEATH: A CLINICAL CHALLENGE

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Case Description: We report a series three cases of young males with a presentation mimicking brain death. High cervical cord injury, fulminant Guillain-Barré syndrome (GBS), organophosphate intoxication, baclofen toxicity, and lidocaine toxicity have all been reported as clinical mimics of brain death. Recently, an occult neurotoxic snake bite has emerged as another brain death mimic. Snake bites presenting as brain death are a rare entity and so far, nine such cases have been reported in adult patients. Owing to a lack of snake bite history and unavailability of specific diagnostic tests, this diagnosis presents a challenge for physicians working in the emergency department, unless a high degree of suspicion is maintained. We wish to highlight the diagnostic challenge presented by such patients, with emphasis on the need for early recognition and prompt treatment of these so-called mimics.

Clinical Hypothesis: To demonstrate the need to consider neurotoxic snake bites as an important differential in patients presenting in an apparently brain dead state.

Diagnostic Pathways: In the first case, considering all mimics, we performed an extensive neurological work-up. In the subsequent cases, we avoided unnecessary investigations and promptly treated both patients resulting in clinical recovery.

Conclusion and Discussion: The above cases highlight the importance of recognizing 'reversible' causes of brain death to prevent errors in diagnosing brain-death. In patients with unexplained neuromuscular paralysis, it is important to consider an elapid snake bite even without evidence of fang marks or a history of snake bite. Early treatment usually leads to complete recovery and excellent outcomes.

PV279 / #247

INHALED SALBUTAMOL INDUCED LACTIC ACIDOSIS: THE DIFERENCIAL DIAGNOSIS IMPORTANCE

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Background and Aims: Inhaled salbutamol is often used in intensive care and the salbutamol-induced lactic acidosis is an usual forgotten phenomenon.

Methods: Here we report the clinical case of a 67-years old woman, admitted with SARS-CoV-2 pneumonia with bacteria over imposed respiratory infection. This patient needed invasive

mechanical ventilation in the first 24 hours to admission. After the salbutamol inhaled therapy introduction, the patient presented with lactacidemia (5.7 mmol/L maximum lactate).

Results: There were excluded the cellular hypoxia compatible conditions, namely cardiocirculatory dysfunction worsening, hypovolemia or ischemic events, so the inhaled salbutamol was stopped with quick lactate level normalization.

Conclusions: This case report aims remind the importance to exclude salbutamol iatrogenic effects in the hyperlactacidemia evaluation, as well as highlight the need to know if there is lactic acidosis (type A vs. B) since the not recognition of cellular hypoxia may be life-threatening and worse the patient prognosis.

PV280 / #461

ARE THERE ANY FEATURES IN CLINICAL PRESENTATION OF ACUTE CORONARY SYNDROME IN FORMER ATHLETES?

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Background and Aims: Little is known about features in clinical presentation of acute coronary syndrome (ACS) in the middle-aged and older adults had engaged in moderate sport activity in the youth.

Methods: We studied 33 patients (8 females) admitted to noninvasive cardiology department with ACS. 12 males ($M \pm m$; 64.3 ± 4.0 (43-88) yrs;) and 4 females (69.2 ± 4.8 (60-81) yrs) were former recreational athletes, 13 males (63.5 ± 3.7 yrs) and 4 females (69.3 ± 4.3 yrs) admitted in the same day/week served as case-control.

Results: Former female-athletes had higher systolic ($p=0.023$) and diastolic ($p=0.015$) blood pressure (BP) at admission and higher low density lipoprotein cholesterol (3.9 ± 0.2 vs 2.8 ± 0.3 mmol/L; $p=0.015$), 2 females were obese. No difference was found in enzymes, glucose, electrolytes, ECG and EchoCG parameters. Left ventricular (LV) contractility had tendency to be better ($p=0.07$), only 1 female was discharged with non ST-elevation myocardial infarction (non-STEMI). In males BMI (28.1 ± 1.7 and 26.8 ± 1.0 kg/m²), heart rate, BP, Killip class and comorbidities did not differ, except low back pain was higher in former athletes. Only 2/12 were smokers, 2 males had I degree AV-block, 2 - paroxysmal atrial fibrillation. Despite 2 former endurance trained athletes had elevated LVED diameter and 1 - reduced ejection fraction, bigger heart rate have been achieved at exercise testing (mean 150.0 ± 12.9 vs 133.3 ± 10.5 bpm; $p=0.027$); 7/12 former athletes diagnosed with unstable angina and none - with non-STEMI.

Conclusions: Physical activity in the youth may positively impact on clinical presentation of ACS in the middle-aged and older individuals and should to be promoted.

PV281 / #500

THREE, THE MAGIC NUMBER

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Background and Aims: Guillain-Barré syndrome is a progressive deteriorating condition caused by auto-immune lesion of peripheral nerves and nerve roots, usually triggered by infections. Classically is presented as ascending weakness, although nowadays, several variants are known.

Methods: We report a case of an usual path.

Results: 27-year-old male was admitted in the Emergency Department (ED) for generalized weakness, starting in the upper limbs, with one day of evolution. He had history of acute gastroenteritis two weeks before and was discharged with symptomatic medication only. The patient returned the day after more asthenic, being discharged again, after a normal brief neurological exam. Two days after, on his third visit, the patient returned to the ED. Beyond the generalized weakness, he had now lack of sensibility in both hands and feet, lack of strength in upper and lower limbs proximally, slurred speech and slight difficulty in swallowing. The diagnosis of rapidly progressive Guillain-Barré Syndrome was made and later confirmed by a neurologist.

Conclusions: Although Guillain-Barré Syndrome initial manifestations are quite unspecific, they tend to become more evident over time, reaching its nadir at 2-4 weeks. This justifies that most patients are not diagnosed on their firsts ED visits. However, delay on diagnosis is associated with increased need for mechanical ventilation and residual weakness. Guillain-Barré Syndrome is an important differential diagnosis of progressive weakness. Being a rare, but life-threatening condition, given the potential of respiratory involvement, clinical suspicion is extremely important.

PV282 / #586

POINT OF CARE ULTRASOUND IN ACUTE KIDNEY INJURY

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Background and Aims: Acute kidney injury (AKI) is a frequent in the emergency department (ED). AKI could be classified in pre-renal; intrinsic or post-renal^[1]. The use of point of care ultrasound (POCUS) focused on scope, as a 5th cornerstone of clinical examination, could help guide therapy^[2]. US is useful in obstructive uropathy and in pre-renal/intrinsic cases, by accessing hemodynamic status^[3]. In this study, the authors aim to evaluate a new POCUS protocol to apply in AKI cases.

Methods: An analytical observational study assessing heart, lungs, kidneys and hemodynamic (VExUS protocol) POCUS, performed by internal medicine physicians, to patients with AKI at the first 12 hours of admission in the ED. Data, along with volemic status, will be interpreted into post-renal or pre-renal/intrinsic.

Results: This study will evaluate the clinical impact of a multi-organ and hemodynamic POCUS in the etiologic diagnosis of AKI at the ED.

Conclusions: This study will propose a new POCUS protocol to evaluate patients with AKI, as a 5th cornerstone of clinical examination.

^[1]Lamarche J., Rivera A., Courville C., Taha M., Antar-Shultz M., Reyes A. Role of Point-of-Care Ultrasonography in the Evaluation and Management of Kidney Disease. *Federal Practitioner* 2018 Dec; 35(12): 27–33.

^[2]Mariz J., Silva R., Romano M., Gaspar A., Gonçalves A.P., Silva J.P. et al. Point-of-Care-Ultrasound in Internal Medicine: A Paradigm Shift in the Evaluation of the Acute Patient. *Medicina Interna*, 25(4), 309-319.

^[3]Cortesi C., Ibrahim M., Rivera F.C., Hernandez G.A. Cardiorenal Syndrome, Hemodynamics, and Noninvasive Evaluation. *Clin. Med. Insights Ther.* 2017; 9: 1-8

PV283 / #589

POST INTRASPINAL INJECTION PNEUMOCEPHALUS - A CASE REPORT

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Case Description: Pneumocephalus refers to the presence of intracranial gas, usually air. It is most commonly encountered following trauma or surgery. The aim of this report is to highlight complication of intraspinal injections which can lead to severe neurological consequences. A 78-year old woman without any concomitant diseases, presented at the emergency department with headache, dizziness and vomiting. A few hours earlier, she received NSAIDS treatment for back pain as intraspinal injections. During treatment with antiemetic drugs and intravenous hydration she became disoriented and gradually stimulant.

Clinical Hypothesis: Clinical and laboratory examination were not diagnostic for vertigo or any systemic infection. Thus, the brain CT revealed air bubbles in left temporal and right frontal ventricular horn.

Diagnostic Pathways: After an hour of oxygenation, she experienced generalized tonic-clonic seizures treated with intravenous diazepam and levetiracetam, followed by a prolonged postictal phase and the patient was finally intubated. She was hospitalized in ICU with status epilepticus. After its passage she presented severe neurological symptoms, lactic acidosis and acute kidney injury but no central nervous system infection as proven by lumbar puncture. Through treatment with levetiracetam and corticosteroids and after stabilization, she was transferred in Neurosurgery Department for further hospitalization and discharge without any neurological deficits.

Conclusion and Discussion: There are many widely performed medical practices that can result in severe adverse events concluding CNS damage. Pneumocephalus is not an uncommon complication of these procedures. Therefore, we have to be alerted for any symptoms or signs that may follow such procedures.

PV284 / #600

POINT OF CARE ULTRASOUND POWER IN THE EMERGENCY DEPARTMENT – APPROACH OF 2 PATIENTS WITH PNEUMOTHORAX

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Background and Aims: Point of care ultrasound (POCUS) has been recognised by European Federation of Internal Medicine as a complement of physical exam. Further discussion exists about the role of the internist in multidisciplinary teams including trauma patients. We present 2 patients with diagnosis of pneumothorax, established in the emergency department, whose initial evaluation included POCUS.

Methods: *Case 1:* A 41 year old male was admitted in the emergency room with head and chest trauma. He presented crackles in lung auscultation and emphysema in right chest wall. A Focused Assessment with Sonography for Trauma was performed, allowing identification of pneumothorax and lung contusion in the right hemithorax. Chest radiography revealed an hypotransparency in the right inferior region, but the CT scan confirmed our diagnosis. A chest drain was immediately placed. *Case 2:* A 22 year old male was admitted with pleuritic chest pain located in the right hemithorax. The onset of pain was sudden, after physical effort, and irradiated to the right shoulder. The patient presented as hemodynamically stable, with no signs of respiratory distress. Pulmonary auscultation revealed abolition of lung sounds in the right upper region. POCUS identified a lung point, which quickly confirmed our clinical suspicion of pneumothorax. The condition was treated with needle aspiration and the patient was discharged.

Results: POCUS allowed a fast diagnosis of pneumothorax right after the observation of both patients, and exhibited more sensitivity than radiography.

Conclusions: We believe POCUS has the power to improve clinical assessment in the emergency department in multiple settings, and should be routinely used.

PV285 / #628

PANCREATIC PSEUDOCYST MIMICS CORONARY SYNDROME: UNCOMMON NON-CARDIAC CHEST PAIN IN THE EMERGENCY DEPARTMENT, A CLINICAL CASE

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Case Description: 50-year-old male, type 2 Diabetes, dyslipidaemia and smoking, presented with acute chest pain radiating to left hypochondrium and vomiting, within 3hours. Tachypneic, without supplementary oxygen need, normocardic, BP 209/108 mmHg. Apyretic. Pulmonary and cardiac sounds normal. No peritoneal irritation signs or symptoms. EKG: sinus rhythm, without ST-T segment deviations. Patient received AAS, ticagrelor, morphine and sublingual nitroglycerin, with no relief.

Clinical Hypothesis: Although Major diagnosis hypothesis was acute coronary syndrome, gastrointestinal pathology must be excluded especially in the presence of normal EKG and no pain relief after standard treatment. Symptoms and cardiac markers evolution will help in differential diagnosis.

Diagnostic Pathways: Laboratory tests: leucocytosis ($14,54 \times 10^9/L$), neutrophilia ($12,81 \times 10^9/L$), without anaemia and a platelet count of $137 \times 10^9/L$. Admission and serial High sensitive troponin were negative. Patient maintained pain and had an episode of hematemesis. Thoracic, abdominal and pelvic CT were performed, surgery observation was asked and upper gastrointestinal endoscopy was made. Abdominal CT showed a cystic formation in pancreatic's body/tail (120x95mm), extended to small epiplon, causing stomach compression. Upper endoscopy revealed gastric mucosal erosion occurring in the body and stomach's antrum, due to external compression of a pancreatic pseudocyst. Patient was transferred for general surgery.

Conclusion and Discussion: Besides coronary syndrome, other conditions, especially gastric, are related to chest pain, being an important differential diagnosis. During stay, patient had clinical manifestations that directed us to a gastric origin. An uncommon cause, as pancreatic pseudocyst, may complicate with epigastric pain or upper gastrointestinal bleeding, reflecting a less frequent differential diagnosis for a thoracic pain.

PV286 / #633

QUALITY IMPROVEMENT PROJECT (QIP): END OF LIFE (EOL) CARE IN ACUTE MEDICINE DEPARTMENT, THE QUEEN ELIZABETH HOSPITAL KING'S LYNN (QEHKL)

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Background and Aims: EOL care in QEHKL was rated as inadequate by Care Quality Commission in their report published on 24/7/2019. A QIP was conducted in collaboration with NHS Improvement in acute medicine, aiming for early recognition of EOL patients to deliver compassionate care with a holistic approach and to raise awareness about EOL care among staff.

Methods: This QIP was conducted prospectively for 10 weeks (24/9/2019 – 2/12/2019) with daily data collection using a standardised proforma. Proactive EOL teachings with open discussions and weekly performance update were delivered to the team. Supportive & Palliative Care Indicators Tool was introduced to junior doctors, helping them to identify rapidly deteriorating patients.

Results: 19 EOL patients were identified during their acute admissions. All patients with full mental capacity were involved in EOL care decision-making. Anticipatory medications were started in all EOL patients at earliest opportunity to keep patients comfortable. 68% of EOL patients were started on personalised individual care plan.

Conclusions: Awareness about early recognition of EOL patients was raised with markedly improved in care delivery. Appreciation messages were received via "Family and Friends Test". Importance of EOL care should always be highlighted in departmental meeting to sustain current good practice especially during the change-over period of junior doctors.

PV287 / #634

THE RELEVANCE OF MULTIORGAN POINT OF CARE ULTRASONOGRAPHY (POCUS) APPROACH TO NONSPECIFIC SYMPTOMS

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Background and Aims: The high sensitivity of a multiorgan system ultrasonography approach, when compared to an individualized organ examination, has been described in literature. This property reveals the importance in the approach to entities with multiple nonspecific symptoms like pulmonary embolism (PE), in the setting of an Emergency Department (ED) of Internal Medicine. The purpose of this work is to display two cases in which a multiorgan system POCUS approach helped with the diagnosis and management of PE.

Methods: In two patients, the sequential POCUS examination of the lungs, heart and leg veins. The examination was performed by an Internal Medicine intern POCUS trainee and the clinical cases and images obtained were discussed with the attending physician.

Results: *Case 1.* Female, 50yo, complaints of shortness of breath (SOB) and left leg calf pain lasting 1 week. History of high blood pressure and dyslipidemia, on oral contraceptive medication. Cardiac POCUS revealed a McConnell sign, right ventricular dilation, and a non-collapsing inferior vena cava. *Case 2.* Female, 71yo, complaints of pleuritic chest pain and SOB, worsening for 8 days. Physical examination revealed edema of the right lower leg. Applying 12-point lung ultrasound, subpleural infarcts were detected; 2-point leg veins POCUS revealed a non-compressible distal popliteal vein in the right leg diagnosing of DVT.

Conclusions: A multiorgan POCUS approach is a valuable tool to be used by experienced internists, in an emergency setting, namely in patients presenting non-specific symptoms. POCUS as the capacity to bridge the gap between physical exam, d-dimer testing and computed tomography in the challenging diagnosis that is PE.

PV289 / #776

CARDIAC ARREST ETIOLOGY, RISK FACTORS, INCIDENCE AND PREVALENCE

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Background and Aims: Cardiac arrest is characterized by an abrupt loss of consciousness in absence of blood flow owing to loss of cardiac pumping action. The most common electrical mechanisms of cardiac arrest are the ventricular tachyarrhythmias. Aim of the study was to highlight the risk factors for cardiac arrest, the type of disease at which the evolution was toward cardiac arrest as well as its frequency of occurrence.

Methods: Major criteria for case selection was the diagnosis of cardiac arrest, no matter the stage of the disease. The diagnosis of stroke was based on a set of clinical and paraclinical arguments. Such patients, whether in an in-hospital or out-of-hospital environment, have a poor prognosis because of advanced heart disease or coexistent multisystemic diseases.

Results: 14% of patients receiving in-hospital cardiopulmonary resuscitation (CPR) were discharged from the hospital alive, and 20% of these patients died within the ensuing 6 months. Although 41% of the patients had suffered an acute myocardial infarction, 73% had a history of congestive heart failure and 20% had had prior cardiac arrests. The mean age of 70 years may have influenced the outcome statistics, but patients with high-risk complicated myocardial infarction and those with other high-risk markers heavily influenced the population of patients at risk.

Conclusions: Clinical cardiac arrest and sudden cardiac death can be described in the framework of the same four phases of the event used to establish temporal definitions: prodromes, onset of the terminal event, the cardiac arrest, and progression to biologic death or survival.

PV290 / #827

NON-INVASIVE VENTILATION, BAROTRAUMA AND COVID-19

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Background and Aims: Non-invasive ventilation (NIV) is now commonly used for acute respiratory failure in patients infected by SARS-Cov-2. Pulmonary barotrauma is defined as the presence of air outside the alveoli due to lung injury and the air leakage into interstitium may dissect and cause pneumothorax, pneumomediastinum or subcutaneous emphysema. It is typically seen in invasive mechanical ventilation, however, barotrauma can be a complication of NIV with increased morbidity and mortality.

Methods: We present a case of a 71-year-old caucasian woman who had history of rheumatoid arthritis under corticotherapy. She was admitted with one week evolution of fever, cough and dyspnoea. At admission, a chest x ray documented bilateral subpleural infiltrates consistent with interstitial pneumonia. Arterial blood gas showed severe respiratory failure. A nasopharyngeal swab for RT-PCR confirmed a SARS-CoV-2 infection.

Results: The patient has been adapted to non-invasive ventilation with bilevel positive airway pressure, using pressure support levels between 16-20 cm H₂O and end expiratory pressure between 8-10 cm H₂O. Due to worsening of hypoxemia she was referred to intensive care unit and performed a CT-scan that showed diffuse ground-glass opacities and consolidations with a subpleural distribution; but also an extensive pneumomediastinum with air along cervical and thoracic fascial planes into subcutaneous tissue. No pneumothorax was present. The patient underwent endotracheal intubation and invasive mechanical ventilation with care to lung-protective ventilation, including immediate prone positioning after intubation.

Conclusions: Few cases of pneumomediastinum caused by NIV have been reported. This clinical case aims to alert for barotrauma in COVID-19 patients even while on NIV.

PV292 / #892

HIGH ANION GAP METABOLIC ACIDOSIS CAUSED BY ACETAMINOPHEN AND FLUCLOXACILLIN TREATMENT – A CASE REPORT

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Case Description: A 75-year-old patient was referred to the emergency room with tachypnea (28 breaths/minute). Blood gas analysis indicated a severe high anion gap metabolic acidosis (HAGMA), with a bicarbonate of 3.7mmol/l, hypocapnia (1.3 kPa) and hyperoxia (14.8 kPa). Recently, he was hospitalized because of staphylococcus aureus bacteraemia and infected hip prosthesis for which he still received high dose acetaminophen, flucloxacillin, and rifampicin intravenously.

Clinical Hypothesis: HAGMA is a common diagnosis with several popular mnemonics referring to the most frequent causes. In this case an (ethanol) intoxication was unlikely and urea, lactate and glucose were all within normal limits eliminating conventional etiologies. We hypothesized a 5-oxoproline acidosis to be the cause, since long-term acetaminophen and flucloxacillin have been linked to 5-oxoproline (pyroglutamic acid) accumulation.

Diagnostic Pathways: Besides common diagnostic work-up, extensive urine analysis was performed to detect organic acids, which showed highly elevated 5-oxoproline levels. 5-oxoproline is an intermediate of the gamma-glutamyl cycle, a pathway synthesizing

glutathione. As an antioxidant, glutathione plays a key role in the neutralization of toxic (acetaminophen) metabolites. Several aligning mechanisms affecting the gamma-glutamyl cycle may lead to accumulation of 5-oxoproline eventually causing HAGMA.

Conclusion and discussion: Concomitant usage of acetaminophen and flucloxacillin over a long period may result into a severe, potentially lethal HAGMA. Clinicians need to be aware of this uncommon form of HAGMA and should consider caution with this drug combination, especially in fragile patients with renal comorbidities and or poor dietary intake.

PV293 / #928

PULMONARY THROMBOEMBOLISM AS THE FIRST MANIFESTATION OF DISSEMINATED TESTICULAR CANCER

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Case description: A 23-year-old male, healthy, goes to the Emergency Department for sudden onset dyspnea on waking and pleuritic pain in the left hemithorax with interscapular irradiation with 2 days of evolution. On objective examination, he was conscious, hemodynamically stable, tachycardic, tachypneic, SatO₂ 93% with FiO₂ 35% and afebrile. No relevant cardiopulmonary stetoacoustic changes.

Clinical Hypothesis: Pulmonary thromboembolism (PTE), aortic dissection, perimycarditis and less likely acute coronary syndrome.

Diagnostic Pathways: Electrocardiography showed sinus tachycardia with s1q3t3 pattern. In ecocast, dilation of the right heart chambers with right ventricular dysfunction was demonstrated. He was hypocoagulated (enoxaparin 1mg/kg) and computed angiotomography was requested which confirmed extensive bilateral PTE, various nodular lesions in the pulmonary parenchyma bilaterally ("balloon drop" pattern), pathological mediastinal adenopathies, hepatic nodular mass (8x8cm), retroperitoneal adenopathic conglomerate and infiltrative lesion to left kidney. On a thorough objective examination, it was identified hardened nodular lesion (1.5 cm) in the left testis. Left inguinal orchiectomy was made 6 days after the event and was referred to oncology for chemotherapy treatment.

Conclusion and Discussion: PTE is a rare complication of testicular cancer (TC) and may be its first manifestation. This case is reported for the atypical clinical presentation of TC and it's intended emphasize that an extensive neoplastic disease in a young male, the possibility of the primary tumor being TC should be immediately considered, since the early diagnosis influences a better prognosis. The ultrasound at the patient's bedside helps us in the diagnosis and immediate start of treatment in a patient with high suspicion of PTE.

PV295 / #945

AORTIC DISSECTION - THE REAL LIFE "TIME BOMB"

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Case Description: We present a case of a 39-year-old black man, previously diagnosed with heart failure with reduced ejection fraction, obesity, dyslipidemia, resistant systemic arterial hypertension (SAH) in study for secondary cause. Primary renal disease, primary aldosteronism, pheochromocytoma, Cushing's syndrome, abnormalities in thyroid and parathyroid function were excluded. Thoraco-abdomino-pelvic computed tomography angiography revealed an aneurysm of the descending aorta with progression to type B dissection (Stanford classification) from the emergence of the left subclavian artery to the emergence of the arteries of the upper celiac and mesenteric trunk. Given the patient's stability, the decision was to maintain antihypertensive drugs and imaging surveillance.

Clinical Hypothesis: Aortic dissection may have a catastrophic course with severe haemodynamic instability. Early diagnosis and treatment are crucial for patient survival. Was this the best clinical approach?

Diagnostic Pathways: A year later, the patient showed to the ER referring low back pain that irradiated to the epigastric region beginning after Valsalva maneuver. Presented with blood pressure (BP) of 280/150 mmHg, pulses palpable in all segments, BP differential of 15 mmHg between upper and lower limbs. Radiologically with evidence of progression of the aortic dissection to the iliac bifurcation. Admitted for placement of aortic stent.

Conclusion and Discussion: This case report highlights the importance of identifying and controlling risk factors prior to the acute event. It is questionable if the stent should have been placed earlier. It would also be important to exclude connective tissue disorders such as Marfan and Ehlers-Danlos syndrome and large vessel vasculitis.

PV296 / #984

"J WAVE SYNDROME" (EARLY REPOLARIZATION SYNDROME)

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Case Description: Young adult 27 years old, black race, professional soccer player; with unspecified arrhythmia; recurrent ear infections, active smoker. He doesn't take any medication. He went to the emergency department due to chest pain such as tightness radiating to the left upper limb. Sudden onset pain, which worsens with deep inspiration and soothens, when bent over the trunk itself. No breathing difficulty, cough or sputum.

No fever or gastrointestinal or urinary complaints. Physical examination: cardiorespiratory auscultation without changes; TA=112/54 mmHg; Fc: 53 bpm; SatO₂: 98%. Symmetric and full peripheral pulses. ECG: J point and ST widening and inverted T waves; analytically discrete elevation of myocardial injury markers. Remaining exams without changes. He was hospitalized and started analgesic treatment and colchicine (iv) due to initial suspicion of acute pericarditis.

Clinical Hypothesis: 1. Acute coronary syndrome; 2. Acute pericarditis; 3. Pulmonary Thromboembolism; 4. Early repolarization syndrome.

Diagnostic Pathways: Analytically: D-dimers: 0.27; K: 4.55, CK: 437; CK-MB: 40; Troponin T: 4.2. ECG: Fc: 57 bpm; J point V4-V6; with ST widening of V4-V6, T waves inverted DIII, V1-V2. Echocardiogram; Chest angio-CT; Holter 24h: normal. 2 Blood cultures; study for autoimmune diseases and serologies also negative. Blood drugs: negative.

Conclusion and Discussion: Young, black, athlete; active smoker; with an unspecified arrhythmia, are predisposing factors to suffer from early repolarization syndrome. In addition to the clinic, the ECG, with J point and ST - enlargement, is very suggestive of this pathology.

Fast and favorable evolution with good therapeutic response after 1 week. Future complications, increased risk of developing atrial fibrillation.

PV297 / #1039

WELLENS' SYNDROME: A WARNING EKG PATTERN FOR A CRITICAL ANTERIOR INFARCTION - CASE REPORT

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Case Description: 70-year-old man, with dyslipidaemia, pharyngeal cancer, ex-smoker, admitted with retrosternal pain, worsening with decubitus, waking him up in the past two weeks, exacerbating with minimum effort and relieving with rest. At evaluation, the patient was pain-free with a normal examination. Pulse 65 bpm, Blood Pressure 133/67 mm/Hg, RR 17/min and saturation on room air 97%.

Clinical Hypothesis: Considering risk factors and clinical history, coronary syndrome was suspected.

Diagnostic Pathways: EKG: sinus rhythm, 65 bpm, biphasic T waves in leads V2 and V3, with ST segment elevation, and negative T waves in V4 and V5, suggesting a wellens' syndrome (WS) pattern type A.

High sensitive troponin was 38.2 ng/L. No cardiomegaly or abnormality on chest radiography. Loading doses of acetylsalicylic acid and clopidogrel were administered. To stratify ischaemic lesion, was executed an Echocardiogram, with slight systolic function depression secondary to anterior-septal and anterior distal segment wall hypokinesia and Coronary angiography,

showing stenosis of proximal segment of left anterior descending (LAD) coronary artery and 1st diagonal with 70% stenosis. Angioplasty of LAD was performed with drug-eluting stent placement.

Conclusion and Discussion: WS is a T-wave pattern in the anterior leads during a pain-free period. Reflects critical obstruction in LAD. Type A (less common; more specific) presents biphasic T waves in V2 and V3 and B, more frequent, has deep T-wave inversion. Patients usually have history of angina, normal or slightly elevated cardiac markers, without Q waves. 75% develop acute anterior infarction, so, patients in whom WS is suspected should undergo urgent cardiac catheterization.

PV298 / #1146

DANGEROUS DRUG COMBINATIONS

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Case Description: Proton pump inhibitors (PPIs) are commonly used in clinical practice. Most of the times these drugs are well tolerated, however, some undesirable side effects like hypomagnesemia had been frequently described. The key clinical indicators of hypomagnesemia are other electrolyte disturbances triggered by hypomagnesemia, mainly hypocalcemia and hypokalemia, both of which can be asymptomatic. We report a case of 57-year-old men with a history of ischemic heart disease and gastroesophageal reflux, on chronic PPIs and thiazide diuretic who presented to the emergency department with palpitations, hand tremors and paraparesis. The symptoms had started two weeks ago and frequently aggravated at night. He also reported nausea and vomiting one day before.

Clinical Hypothesis: Hypomagnesemia as a side effect of proton-pump inhibitors

Diagnostic Pathways: Physical examination was significant for hand tremors, gait instability, exacerbated biceps and patellar reflex and presence of Trousseau and Chvostek's signs. There were no other neurological findings. Laboratory tests showed hypokaliemia (2.7 mEq/L), hypocalcemia (7.1 mg/dL) and hypomagnesemia (0.7 mEq/L). Electrocardiography presented a T wave flattening and ST depression. Cranial and abdominal computed tomography and hemocultures were negative for pathology.

Conclusion and Discussion: Upon suspicious of drug side effects, the patient's clinical presentation gradually reverted with the discontinued use of PPIs and thiazide, assuming the clinicians that the electrolyte disturbances, especially hypomagnesemia were secondary to proton pump inhibitor and thiazide diuretic concealing its consequences. Given the relative risk of hypomagnesemia and the fact that not only hypomagnesemia but also hypocalcemia and hypokalemia can lead to serious arrhythmia, it is crucial for clinicians to be aware of possible electrolyte disturbances related to PPI use.

PV299 / #1252

A RAPID UNFORTUNATE OUTCOME OF A RECENT CIRRHOSIS DIAGNOSIS

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Case Description: 73-year-old woman, with hypertension and dyslipidemia, was sent to the outpatient-clinic for transaminase elevation (~400U/l) for months. She reported fatigue, becoming nearly bedridden, and nausea. She was hypertensive, had pulmonary crackles on the inferior third and peripheral edema. Blood analysis: ANA >1/1000 homogenous pattern, elevated dsDNA antibody, elevated IgG. Hepatic biopsy: portal fibrosis, interface hepatitis and lymphoplasmocytic infiltrate. Further exams revealed portal hypertension with ascites and splenomegaly. Remaining exams were normal. Type 1 autoimmune hepatitis (AIH) diagnosis was made. Prednisolone and trimethoprim-sulfamethoxazole were initiated with subsequent normalization of ALT/AST and IgG and improvement of symptoms. Two weeks later, she presented to the Emergency Room with spontaneous extensive abdominal wall hematoma and macroscopic hematuria; otherwise unremarkable.

Clinical Hypothesis: Coagulopathy due to hepatic failure.

Diagnostic Pathways: She was admitted at ICU with lactate levels 2mmol/l, reduction of 2 g/dl on hemoglobin, thrombocytopenia ($50 \times 10^9/L$), fibrinogen 53 mg/dl, INR 1.9 and total bilirubin 2.5 mg/dl. SARS-CoV-2 test screening was positive. Thoracoabdominal-CT scan: pulmonary infection, absence of hepatic complications (patent portal vein) and hemorrhagic content in the abdominal subcutaneous wall. Despite improvement in COVID-19, the patient developed hepatic encephalopathy (HE), worsened hepatic function and died.

Conclusion and Discussion: This patient presented initially with an acute severe-AIH and rapidly developed acute liver failure. Transplant was contraindicated. This patient had features of low response to corticosteroid: HE and elevated INR and bilirubin. SARS-CoV-2 might have disrupted the delicate homeostasis that this patient had by enhancing coagulopathy. The immune dysregulation present in cirrhotic patients puts them in a higher risk of COVID-19 complications, as in this case.

PV300 / #1321

STEVENS-JOHNSON SYNDROME – AN UNCOMMON PRESENTATION

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Background and Aims: Stevens-Johnson syndrome is a rare medical emergency, consisting of a skin and mucous membranes disorder, where the patient has a reaction to medication. Usually

starts with flu-like symptoms, followed by a painful rash and blisters. Hospitalization is often required hence to care the wounds, control pain and minimize complications.

Methods: Retrospective Case Report

Results: A 94-year-old male appeared in the emergency room with 8 days evolution of skin erythema with blisters and pain. Past medical history of the patient include arterial hypertension, dyslipidaemia, hyperuricemia, and dementia. His long-term medication includes an antihypertensive, a benzodiazepine and a dyslipidemic. His general physician had started on febuxostat 3 weeks before. In the observation, he presented hemodynamically stable, a systolic heart murmur with normal pulmonary auscultation and abdominal exam; skin lesions on both hands, feet and oral mucosa – the lesions were similar, presenting as erythematous macules with purpuric centres tender to the touch, with blistering some of them haemorrhagic. Due to the timeline of the new drug, a necrolysis of the skin was created. His blood work showed an increase inflammatory parameter. Although he started supportive treatment, due to the advance age and complications, the patient died 24 hours later.

Conclusions: This syndrome has rarely been reported in patients taking febuxostat, commonly during the first month, and in patients with allergies to other drugs. The authors of this case pretend to alert to this unique disease, that is hardly recognized and that require a specific approach.

PV301 / #1329

DRESS SYNDROME POST AORTIC VALVE SURGERY FOR INFECTIVE ENDOCARDITIS

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Background and Aims: Here we describe the case of a 58-year-old gentleman who re-presented unwell, 6 weeks post discharge after a biological Aortic Valve Replacement for, Infective Endocarditis, with symptoms of malaise, fever, breathlessness and a non-tender purpuric morbilliform rash in both legs. He had completed a 6 week course (Total 8 weeks) of amoxicillin, rifampicin and cotrimoxazole as per microbiology advice. Systems examination was unremarkable along with normal Transthoracic and Transoesophageal Echocardiograms. Blood tests' revealed a high C-reactive Protein, Eosinophil count and a Total IgE Level

Methods: DRESS syndrome was considered as the main diagnosis however, other differentials needed to be excluded in order to safely and confidently treat DRESS syndrome with the withdrawal of causative medications.

Results: DRESS syndrome secondary to Rifampicin was the most likely diagnosis given the rash, eosinophilia, CRP and constitutional symptoms that resolved on cessation of Rifampicin. Prosthetic Valve Endocarditis was excluded with serial negative cultures and a reassuring TOE. Dressler's Syndrome was excluded given the normal examination, absence of pericarditic symptoms and a pericardial

effusion. Loeffler's endocarditis was excluded due to the absence of chronic eosinophilia and typical echocardiographic features.

Conclusions: DRESS syndrome is a potentially life-threatening condition (mortality rate 2-10%) necessitating early diagnosis for a better prognosis. It encompasses a variety of clinical symptoms where majority are cutaneous (70-100%) and characteristically latent, 2-8 weeks from commencement of a drug. Rifampicin is one of the commonest given its many indications. High index of suspicion with immediate withdrawal of the offending drug and supportive therapy remains the mainstay of treatment.

PV302 / #1339

AORTIC INTRAMURAL HEMATOMA

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Case description: A 77-year-old woman with a history of hypertension, obesity and dyslipidemia was admitted to our hospital with acute chest pain radiating to the back and neck. At physical examination, pulses were symmetrical and arterial pressure was 134/81 mmHg with stable hemodynamic status.

Clinical Hypothesis: In this case of thoracic pain event the acute myocardial infarction in addition to the fulminant pulmonary embolia are the most important differential diagnoses.

Diagnostic Pathways: Electrocardiography with normal sinus rhythm and no ST-T segment changes. Chest film revealed mediastinal enlargement. Analysis presented positive D-dimers (1125), without troponin or LDH elevation. The patient underwent thoracic contrast computed tomography, which showed imaging aspects confirming acute aortic syndrome with involvement of the ascending thoracic aorta and the aortic arch (Figure #1339 a b c). Presented also with a sign of active contrast extravasation on the anteroinferior part of the aortic arch. These are interpreted as intramural aortic hematoma with a likelihood of ulcer penetrating atherosclerosis.



#1339 Figure A



#1339 Figure B



#1339 Figure C

Conclusion and Discussion: The patient underwent surgical intervention during which she deceased.

PV303 / #1392

OSMOTIC DEMYELINATION SYNDROME IN A POST-DIALYSIS PATIENT

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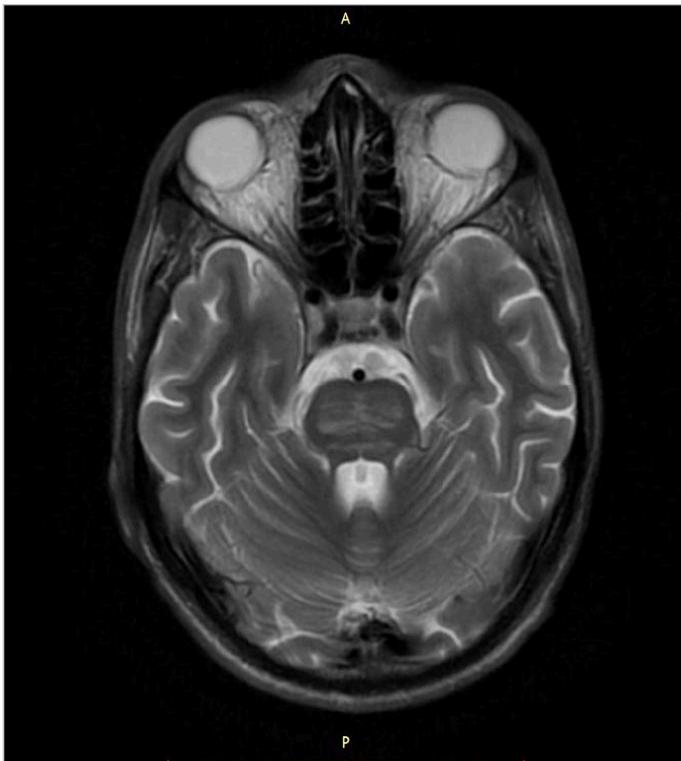
Case Description: 26-year-old male, known case of chronic kidney disease on maintenance hemodialysis, presented with a history of shortness of breath, bilateral pedal edema, and facial puffiness for 10 days. The patient underwent urgent hemodialysis

in an outside local hospital because of severe volume overload with severe metabolic acidosis. Serum electrolytes were sent before dialysis. On the basis of normal sodium and hyperkalemia on arterial blood gas analysis, patient was subjected to urgent hemodialysis. Post-dialysis, patient developed acute onset rapidly progressive confusion, aphasia, and motor weakness.

Clinical Hypothesis: The development of neurological dysfunction post-dialysis suggests the following differential diagnosis: 1) dialysis dysequilibrium syndrome 2) osmotic demyelination syndrome.

Diagnostic Pathways: Serum electrolytes sent before dialysis later on revealed hyponatremia with serum sodium of 104 mEq/l which was corrected to 128 mEq/l after dialysis. Hyperintensities in bilateral basal ganglia, pons, and midbrain without diffusion restriction was noted on cerebral magnetic resonance imaging (Figure #1392). A diagnosis of osmotic demyelination syndrome (ODS) was made.

Conclusion and Discussion: ODS is characterized by the loss of myelin in the center of the pons and other areas of the central nervous system and is a known complication of rapid correction of hyponatremia. Slow correction of hyponatremia is the ideal way to prevent ODS. It is essential to differentiate between osmotic demyelination syndrome and dialysis dysequilibrium syndrome. New data suggest that reintroduction of hyponatremia in those patients who received rapid correction of sodium and corticosteroids plays a major role in the prevention of ODS.



#1392 Figure

PV304 / #1434

DEMOGRAPHICS OF EMERGENCY DEPARTMENT FREQUENT USERS: A RETROSPECTIVE STUDY FROM PORTUGUESE HOSPITAL

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Background and Aims: Emergency department (ED) frequent users are responsible for a significant proportion of ED admissions. No uniformly accepted definition of ED frequent users has been identified. Our goal was to assess demographics and main reason for ED admission of frequent users at our hospital.

Methods: This is a retrospective cohort study, we reviewed the files of frequent users (defined by individuals with 15 or more ED admissions in the past 12 months) admitted to the ED between January and December, 2019. We collected data concerning demographics, number of admissions, reason for admission and orientation upon discharge.

Results: A total of 34 patients were included, with a mean age of 62±15 years. On average, patients had 24±15 admissions. The majority of patients (41.2%) were classified as non-urgent according to the Manchester triage system. The main reasons for admission were dyspnea (32.4%), altered state of consciousness (8.8%), trauma (8.8%), chest pain (8.8%) and abdominal pain (8.8%). According the Katz Scale, the majority of patients were independent (73.5%) in daily living activities. The most frequent comorbidities were heart failure (29%), chronic obstructive pulmonary disease (29%) and chronic liver disease (12%). Most patients (52,3%) were discharged home to be later reassessed by their family physician.

Conclusions: The ED is an important and frequently used health care setting, and frequent users are an important factor for ED congestion and resource consumption. Most patients were admitted for non-urgent causes and were discharged home, mostly for symptoms related to previous comorbidities.

PV305 / #1579

SUPERIOR VENA CAVA SYNDROME CAUSED BY INTRATHORACIC GOITER

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Case Description: Superior Vena Cava Syndrome (SVCS) is predominantly caused by an underlying malignancy. However, some benign causes such as intrathoracic goiter can rarely present as SVCS. A 94-year-old female was admitted with dyspnoea, asthenia, cough, orthopnea, easy choking and upper body edema. She had previous medical history of heart failure, hypertension and hyperthyroidism by a probable toxic multinodular goiter

(diagnosed in 2016; started medical follow-up in 2020, during the last 2 months). At the hospital, she presented respiratory failure, respiratory acidosis, upper body edema (face and upper limbs), jugular venous turgor and collateral venous circulation at the anterior thorax.

Clinical Hypothesis: These clinical findings suggested a SVCS by extrinsic compression of venous vessels by goiter.

Diagnostic Pathways: Neck and thoracic computerized tomography confirmed an enlargement of the left thyroid lobe (14x7x7cm), inducing a right deviation of the trachea and compression of internal jugular and subclavian veins, bilaterally. Furthermore, there was extensive anterior venous collateralization. The patient was euthyroid while taking tiamazol and did not have evidence of autoimmune thyroid disease.

Conclusion and Discussion: In conclusion, the woman had a toxic multinodular goiter inducing extrinsic compression on major venous vessels that lead to the superior vena cava. Because she was euthyroid, a total thyroidectomy was proposed. However, the surgery was refused by the patient's family after careful ponderation of its benefits and risks.

Straka et al., Review of evolving etiologies, implications and treatment strategies for the superior vena cava syndrome. *Springerplus* 2016;5:229.

PV306 / #1611

FREQUENT FLYERS OF THE EMERGENCY DEPARTMENT

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Background and Aims: Frequent emergency department (ED) users have been the targets of healthcare reform proposals and hospital crowding interventions. Our aim is to study a population of frequent users.

Methods: Retrospective study of ED admissions in a hospital during the year of 2019. We selected the patients with more than 10 visits per year and reviewed their demographics, acuity of illness and patterns of healthcare utilization.

Results: There were 28 patients with >10 visits to the ED (a total of 375 admissions) in 2019. The average age was 66 [20-94] years old and 54% of them were male. The average number of admissions was 13 visits per year and most of them were non-urgent. The most frequent complaints were urinary symptoms. Only one patient did not have associated comorbidities. 61% of patients had a history of cancer, 46% a cardiovascular disease, 36% a respiratory disease and 36% a psychiatric illness. In 82% of patients the cause of admission was correlated with previous comorbidities. Non-compliance with drug treatment was found in 32% of the patients. 9% (n=33) of admissions resulted in hospitalization.

Conclusions: Frequent ED users are a heterogeneous group. Our population was small, making inferences difficult. Despite most

admissions were non-urgent, the majority of patients who resort to the ER had chronic diseases. The follow-up of patients in outpatient consultations and a more close relationship between the patient and his physician could be strategies to be applied to reduce the inappropriate use of the ED, with benefit to the healthcare system and the patient.

PV307 / #1612

AN IMPORTANT PITFALL IN BEDSIDE ULTRASOUND FOR SUSPECTED ASCITES

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Case Description: A 73 year-old woman presented to the emergency department with a two months history of anorexia, post-prandial vomiting, abdominal distension and weight loss. She was a former smoker and had a history of arterial hypertension and previous laparoscopic cholecystectomy. At physical examination she had an unpainful distended abdomen with visible collateral circulation and dullness on percussion. A bedside ultrasound was requested to guide diagnostic paracentesis for suspected ascites. Echographic evaluation showed that the abdomen was filled with a homogeneous hypoechoic fluid with few peripheral thin septa. There were no free floating bowel loops or fluid in Morrison's pouch and a few cystic images were seen in the left iliac fossa.

Clinical Hypothesis: At this point we were concerned about a complicated ascites or an alternative diagnosis.

Diagnostic Pathways: Abdominal computed tomography and magnetic resonance showed a voluminous, multiseptated and mostly cystic mass occupying the whole abdominal cavity with probable origin in the right adnexa. Carbohydrate antigen 19.9 and 125 were both elevated. Laparotomy was performed with the resection of a 7.2 kilogrammes capsulated mass histologically compatible with a benign mucinous cystadenoma.

Conclusion and Discussion: Bedside ultrasound is being increasingly performed and ascites evaluation is usually considered straightforward. As large cystic masses may mimic ascites presentation, other signs of the presence of free abdominal fluid should be consistently sought before deciding to perform a paracentesis.

PV308 / #1639

INCREASED SERUM OSMOLAL GAP IN A PATIENT WITH ETHANOL INTOXICATION

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Background and Aims: Measuring serum osmolar gap (defined as measured Posm – calculated Posm) may be a useful tool in everyday clinical practice, especially in patients when ingestion of toxic alcohols is suspected. An osmolar gap >20 mosm/kg is usually caused by ingestion of water soluble agents of low molecular weight such as: methanol, ethylene glycol, isopropanol, propylene glycol, diethylene glycol or organic solvents such as acetone. However, an increased osmolar gap >20 mosm/kg is rarely attributed to ingestion of ethanol alone.

Methods: An 18 year old male in a comatose state, following acute alcohol ingestion. The patient had no past medical history, while he was not on any medication.

Results: Arterial blood gases revealed metabolic acidosis with an increased anion gap with normal lactate, creatinine, creatinine kinase and ketones serum levels. The measured Posm was 383 mosm/kg while the calculated Posm was 297 mosm/kg with an osmolar gap of 86 mosm/kg. Methanol or ethylene glycol intoxication were excluded by toxicology exams and ethanol intoxication was confirmed. The osmolar concentration of ethanol was calculated to 73 mosm/kg and the osmolar gap was calculated to 100 as a result of ethanol intoxication. Fomepizole (inhibitor of alcohol dehydrogenase which catalyzes the initial steps of ethanol, methanol and ethylene glycol metabolism to their toxic metabolites) was administered. The patient's neurological symptoms slowly subsided, while decrease of the osmolar gap to normal levels was observed.

Conclusions: Acute, isolated, ethanol intoxication may be a rare cause of a marked increase of osmolal gap and increased anion gap metabolic acidosis attributed to alcoholic ketoacidosis.

PV309 / #1694

DYSPNOEA IN CASE OF INTOXICATION WITH CO, CYANIDES AND CHLORINE - A COMPLEX COMPARATIVE ANALYSIS IN FAVOR OF THE MEDICAL PROVISION OF THE AFFECTED POPULATION

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Background and Aims: Dyspnoea is a leading symptom in a number of emergencies and mass intoxication. The medical provision of the population (MPP) in case of poisoning with deadly poisonous substances (DPS) causing dyspnoea is a serious challenge. The aim of the study is to make a complex comparative analysis of intoxication with CO, cyanides and chlorine to optimize the MPP and the first medical aid (FMA).

Methods: The methods used for this study are clinical, documentary and comparative analysis.

Results: The results of the study indicate that all three DPS cause dyspnoea with a specific genesis, visualization and characteristic, and resulting in hypoxia. Inhalation of each of them primarily affects the body's functions at different levels with dyspnoea effect. The visible mucous membranes in severe dyspnoea are

altered. Blood gas and chemical analysis are specific, and the saturation of venous blood in cyanide intoxication can be > 92%. The time of onset of dyspnoea in severe intoxication is different, and for cyanides is only tens of seconds. Mass intoxication is a possible risk in a chemical accident (Bhopal, 1984).

Conclusions: The determination of intoxication is based on the nature of dyspnoea with concomitant clinical and laboratory parameters. The MPP in case of mass intoxication is a complex of measures for rescuing the maximum number of victims with minimum available resources and limited time for rendering FMA. A unified diagnostic and therapeutic program is a strategy of choice for providing FMA.

PV310 / #1699

ANTIDOTE THERAPY FOR CYANIDE INTOXICATION - ANALYSIS OF THE BENEFITS AND RISKS OF APPLYING A THREE-STAGE ANTIDOTE PROGRAMME

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Background and Aims: Antidote therapy for cyanide intoxication is an essential part of a unified therapeutic strategy. More than ten antidotes are known to be useful in this intoxication. Nitrites are the necessary antidote for severe cyanide intoxication, while posing a risk and being a poison. The aim of the study is to analyze the necessary antidote therapy for cyanide intoxication according to the degree of intoxication and to present a benefit-risk in the use of nitrites.

Methods: The methods used for this study are clinical, documentary and analysis.

Results: The results of the study indicate that the severity of clinical manifestations is directly dependent on the amount of cyanide in the body. According to the severity of the symptoms and their type, mild, moderate and severe acute intoxication are determined. As a subcellular poison leading to metabolic acidosis, cyanides affect the CNS, RS and CVS. Nitrites, sulfur-containing substances, cobalt-containing drugs, vitamin B12, glucose, methylene blue, hydration, DMAP, EDTA, combined drugs are used for antidote therapy. Nitrites act rapidly, but may cause iatrogenically induced methemoglobin intoxication (>20% MHB) and hypotension.

Conclusions: Cyanides are defined as a fast-acting poison. In severe intoxication, the preferred first antidote is amyl nitrite; with a second line iv - Na₂S₂O₃, and a third line iv - vitamin B12. Antidote set is preferred. Hydration and injection of 40% glucose reduce cyanides in the body and accelerate its elimination.



AS06. ENDOCRINE AND METABOLIC DISEASES

PV311 / #10

ADRENAL INSUFFICIENCY DUE TO INSUFFICIENT ADRENOCORTICOTROPIC HORMONE SECRETION CAUSED BY EMPTY SELLA SYNDROME

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Background and Aims: Empty sella syndrome (ESS) refers to an anatomical and radiological condition, depending on whether the sella turcica is completely or partially filled with cerebrospinal fluid; this results in displacement of the pituitary gland. Therefore, ESS is the pathological variant and the patients have one or more pituitary hormone deficiencies. We recently diagnosed adrenal insufficiency due to inappropriate adrenocorticotrophic hormone (ACTH) secretion caused by ESS, 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 the keywords “ESS,” “adrenal insufficiency,” and “ACTH” to identify relevant studies or case reports, based on PubMed databases from January 1st, 2014 to May 31th, 2020.

Results: We found no other adrenal insufficiency cases due to insufficient ACTH secretion caused by ESS. The patient was a 64-year-old woman and was transported suffering from persistent lower abdominal pain, vomiting, and low-grade fever. Magnetic resonance imaging revealed an empty sella (ES) and hormone tests revealed a disappearance of diurnal variation of cortisol, low cortisol and ACTH secretion especially in the morning, and poor ACTH-cortisol axis reaction, as well as normal hypothalamus-pituitary gland-thyroid or adrenal gland axis hormone reaction. The cause of ES remained unclear; however, based on a diagnosis as adrenal insufficiency due to inappropriate ACTH secretion caused by ESS, we started hydrocortisone (15 mg/day). Afterwards, she immediately became symptom-free and was discharged.

Conclusions: We report the first known case of adrenal insufficiency due to insufficient ACTH secretion caused by ESS.

PV312 / #17

AUTOIMMUNE POLYENDOCRINE SYNDROME INDUCED BY IMMUNE CHECKPOINT INHIBITORS: A SYSTEMATIC REVIEW

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Background and Aims: Patients treated with immune checkpoint inhibitors (ICIs) can develop autoimmune polyendocrine syndrome type II (APS-2), defined as having two or three of the following endocrinopathies: autoimmune thyroid disease, type 1 diabetes, and adrenal insufficiency. Our aim is to summarize the clinical characteristics, immunological and genetic features of this severe and rare adverse event.

Methods: Several databases (MEDLINE/EMBASE/Cochrane) were searched for studies on patients with two or more endocrine disorders after ICI therapy from January 2000 to February 2020.

Results: Our final review included 22 articles comprising 23 patients (median age, 56 years; men, 65.2%). Among them, 60.9% received anti-programmed cell death 1 (PD-1) therapies, and 17.4% received anti-programmed cell death ligand 1 (PD-L1) therapies. Patients underwent a median of 4 treatment cycles before onset of the primary adverse event; the median time of onset was 8.5 weeks. Endocrine organs affected by ICI administration included the thyroid gland (18/23, 78.3%), pancreas islet (17/23, 73.9%), pituitary gland (11/23, 47.8%), and adrenal gland (2/23, 8.7%). Most of the patients with APS-2 showed at least stable disease in response to immunotherapies. Relative autoantibodies were positive in 65.2% patients and they showed significantly earlier initiation of autoimmune endocrinopathies than autoantibody-negative patients. The human leukocyte antigen (HLA) genotype was reported in 34.8% patients, 62.5% of which had risk genotypes.

Conclusions: As a serious adverse event from ICI treatment, APS-2 is presented with abrupt initiation time. Increased levels of autoantibodies and susceptible HLA genotypes are associated with the development of APS-2.

PV313 / #33

USE OF INSULINE THERAPY FOR HYPERTRIGLYCERIDEMIA- INDUCED PANCREATITIS AND DIABETIC KETOACIDOSIS

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Background and Aims: Hypertriglyceridemia is the third most common worldwide cause of acute pancreatitis (AP)^[1]. Hypertriglyceridemic pancreatitis (HTGP) may cause more severe AP and worse symptoms. Apart from the supportive care and treatment for AP, it is necessary to treat the underlying etiology. Diabetic ketoacidosis (DKA) may be a risk factor for AP but it is uncertain if AP triggers DKA or vice-versa^[2]. There are no established guidelines for managing HTGP. This report presents a 44-year-old male presented with DKA concurrent with acute severe HTGP as first presentation of type 2 diabetes mellitus. It is extremely rare in previously undiagnosed diabetic patients. He was successfully managed with supportive care and IV insulin infusion.

Methods: The patient was admitted to Medical Intensive Care Unit for fluid, pain control, bowel rest and IV insulin infusion for both HTGP and DKA. The IV insulin infusion rate was titrated according to his clinical condition.

Results: After 1 day of IV insulin infusion therapy, the patient's metabolic acidosis resolved, triglyceride downtrended from 136.4 to 11.58 mmol/L. The IV insulin infusion therapy was stopped at day 4 when there was clinical improvement and the triglyceride level had decreased to 5.3 mmol/L.

Conclusions: This case report demonstrates IV insulin infusion therapy as an effective treatment option with promising outcomes in controlling DKA with concurrent acute severe HTGP.

^[1]Hammond D, Finlay L. Treatment of Hypertriglyceridemia-Induced Acute Pancreatitis With Insulin, Heparin, and Gemfibrozil: A Case Series. *Hospital Pharmacy* 2017;52(10):675-678.

^[2]Yadav D, Pitchumoni C. Issues in Hyperlipidemic Pancreatitis. *Journal of Clinical Gastroenterology* 2003;36(1):54-62.

PV314 / #163

CHARACTERISTICS OF PATIENTS WITH HYPERCALCAEMIA IN THE DEPARTMENTS OF INTERNAL MEDICINE IN SPAIN OVER A PERIOD OF FIFTEEN YEARS (2001-2015)

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Background and Aims: Hypercalcaemia is a rare and often overlooked ionic disorder. Our aim was to describe the characteristics of patients with hypercalcaemia discharged from the Spanish departments of Internal Medicine over a period of fifteen years, using the International Classification of Diseases, 9th Revision Clinical Modification (ICD-9).

Methods: Data from the Minimum Basic Data Set of discharged patients over 14 years of age from the Spanish National Health System (Ministry of Health Affairs) between 2001 and 2015 were analysed. Patients with diagnostic coding for hypercalcaemia (ICD-9: 275.42) discharged from departments of Internal Medicine were selected.

Results: 13,532 patients (32.9% of all discharges) were analysed. The mean age was 73.7 years (SD 13.6). Women were slightly predominant (53%). The median length of stay was 10 days (IQR 5-16). The median cost of stay was 4,301 € (IQR 3,396-5,222). In-hospital mortality was 25.7%. Coded aetiologies: none 28.6%; one 66.9%; two 4.3 %; three 0.1%. Most common aetiologies: neoplasms 78.5%; primary hyperparathyroidism 11.7%; thyrotoxicosis 3.1%; secondary hyperparathyroidism 2.3%; parenteral nutrition 1.2%; sarcoidosis 1.1%; rhabdomyolysis 1%. Most common types of neoplasms: lung 20 %; multiple myeloma 9.3%; breast 5.6%; gastrointestinal tract 4.8%; hepatobiliopancreatic 4.4%; kidney 4.2%; bladder 4.2%; prostate 3.8%; lymphoma 3.3%; head and neck 3.1%.

Conclusions: Neoplasms are the most frequent cause of hypercalcaemia in the Spanish departments of Internal Medicine, followed by primary hyperparathyroidism.

PV315 / #218

ASSOCIATION OF FOOD INTAKE WITH CARDIOMETABOLIC DISEASES AMONG FILIPINO ADULTS

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Background and Aims: The prevalence of Metabolic Syndrome among Filipino adults was found to be 12-15% in 2003. Diet

has been one of the identified modifiable risk factors targeted to prevent cardiovascular disease or its complications. The association of each macronutrient component with metabolic syndrome remains unclear. There is no Philippine data on macronutrient intake and cardiometabolic diseases, thus, the primary objective of this study is to determine the association of food intake with cardiometabolic diseases among Filipino adults.

Methods: This study utilized a cross-sectional analytic design. Data was taken from the results of the 8th NNHeS in 2013-2015 by the Food and Nutrition Research Institute. Filipino adults from different regions of the Philippines who consented to participate in the interview, anthropometrics, blood collection for clinical data, and other measurements were included in this study.

Results: There were 8,056 adults included in NNHeS 2013. The prevalence of Metabolic Syndrome based on Harmonized IDF criteria was 32%. Multivariate analysis showed that increased total protein intake OR 1.391 (1.150-1.684) and increased daily consumption of meat and poultry OR 1.397 (1.163-1.677) were associated with increased risk for metabolic syndrome. On the other hand, decreased vegetable intake OR 1.3 (1.080-1.565) was associated with increased risk for metabolic syndrome. The following were also associated with increased risk for metabolic syndrome: a higher socioeconomic status, female sex, and old age.

Conclusions: Increased age, higher socioeconomic status, female sex, increased total protein intake and daily consumption of meat and poultry, and decreased vegetable intake are associated with an increased risk for metabolic syndrome.

PV316 / #223

CARDIOMETABOLIC PROFILE OF THE FILIPINO ELDERLY

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Background and Aims: The objective of this study is to determine the prevalence of metabolic syndrome and its components among the elderly Filipino seen in the 2013 National Nutrition and Health Survey (NNHeS).

Methods: This study utilized a cross sectional analytic design. Data was taken from the results of the 8th Philippine National Nutrition Survey Clinical and Health Survey done in 2013. Elderly participants aged at least 60 years from different regions of the Philippines who consented to participate in the interview, measurement of anthropometrics, and blood collection for clinical data were included in this study.

Results: There were 1,835 elderly participants included in the survey. Based on JNC VII report, 44.4% of the elderly had hypertension (27.4% stage I, 17% stage II). The most common lipid derangement is LDL >100 mg/dL (84%), followed by HDL <40 mg/dL (63%), total cholesterol >200 mg/dL (56%), triglyceride >200 mg/dL (39%). 52.6% of the elderly have Metabolic Syndrome. Among its components, HDL

<40 mg/dL in men and <50 in women is most common (90.8%), followed by blood pressure >130/85 mmHg (59.2%), triglycerides >150 mg/dL (39%), waist circumference >90 cm in men and >80 cm in women (33.5%), and fasting blood sugar (FBS) >100 mg/dL (30.1%). Among all elderly, 20% have impaired fasting glucose (FBS >100 mg/dL), and 10% of the elderly have diabetes (FBS >126 mg/dL), with a decreasing prevalence with increasing age. 22.9% are overweight or obese, 33.5% have elevated waist circumference, but 21% are undernourished.

Conclusions: The Filipino elderly have a high prevalence of Metabolic Syndrome, its components and cardiovascular risk factors.

PV317a / #1190

A RARE CASE OF BROWN TUMOR

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Background and Aims: Brown Tumor (BT) are rare skeletal anomalies occurring in patients with severe hyperparathyroidism. Under the direct effect of parathormone (PTH), in localized regions with high turnover, the normal marrow contents is replaced by hemorrhage and reparative granulation tissue, resulting in a BT. Common localized on the ends of long bones, the pelvis, ribs and less the axial skeleton. There are benign osteolytic lesions, but can expose patients to pathological fractures.

Case report: 65-year old woman with personal history of nephrolithiasis, presenting with abdominal pain, vomiting and diffuse bone pain. - Laboratory tests :hypercalcemia 3.78 mmol/l (2.20-2.55), high alkaline phosphatase and high parathyroid hormone (iPTH) (1653 pg/ml). - Whole body bone scintigraphy: multiple foci consistent with a high turn-over metabolic bone disease. -18F FDG-PET/CT: multiple osteolytic lesions with intense hyper metabolism throughout the skeleton - 'brown tumors', and a less hyper metabolic nodular structure inferior to the left lobe of the thyroid gland.

Results: The patient underwent complete surgical resection of this nodule. Anatomopathological examination showed parathyroid carcinoma (PT). Bone biopsy shown osteoclast-like giant cells, with fibrogenic stroma; permitting differential diagnosis with a giant cell tumor, compatible with brown tumor;

Conclusions: BT are benign tumor and generally regress spontaneously over time. Thus it is important to make a differential diagnosis with other multifocal osteolytic bone lesions, in order to avoid unnecessary surgical interventions. The present case is an example of a rare association of a multiple BTs and parathyroid carcinoma, one of the most rarely reported malignancies.

PV318 / #279

IMPROVEMENT OF MANAGEMENT OF HYPOTHYROIDISM IN PATIENTS HOSPITALISED IN INTERNAL MEDICINE: EFFECTS OF AN EDUCATIONAL INTERVENTION IN THE NATIONAL CLUSTER-RANDOMISED FADOI-TIAMO STUDY

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Background and Aims: The appropriateness of management of patients with hypothyroidism hospitalised in Internal Medicine (IM) in Italy is not well known. The present study aims to: 1) evaluate possible deviations from the clinical practice recommendations (CPRs) in evidence-based guidelines (EBGs); 2) improve the management by means of a standardised educational program (EP).

Methods: National multicenter study, promoted by the Italian Scientific Society of IM FADOI, designed as replicate of two cross-sectional surveys (Phase 1 and 3) interspersed with an EP (Phase 2) based on outreach visits, and to be conducted in half of participating centers (cluster-randomization). Four EBGs and 39 CPRs were considered, obtaining 22 standards and their relevant indicators.

Results: In 21 centers, 587 in-hospital patients with hypothyroidism were included (females 71.7%; mean age 74.1±14.4), 318 in Phase 1 and 269 in Phase 3. At baseline (Phase 1 and after hospitalisation) adherence to CPRs was considered satisfactory (>50%) for 54% of the indicators. In 5 out 22 (23%) and 2 out 22 (8%) indicators, adherence to CPRs significantly improved or worsened from Phase 1 to 3 in centers receiving EP. In Phase 3, significant better adherence was documented in 4 out 22 indicators (18%) in centers receiving EP vs those non-receiving EP, while 1 (4%) indicator worsened.

Conclusions: In this study, an EP based on outreach visits significantly improved some indicators in the management of hospitalised patients with hypothyroidism, namely in terms of appropriateness of prescription of TSH dosage and modality of treatment with levothyroxine.

PV319 / #415

AN UNEXPECTED CAUSE OF MALIGNANT HYPERCALCAEMIA – A CASE REPORT

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Background and Aims: Hypercalcaemia is a common electrolyte disturbance in neoplasms with several known mechanisms: PTHrp-mediated, osteolytic lesions, hypervitaminosis-D. We present a case of a woman with colonic metastatic cancer that presented with hypercalcemia unrelated to this neoplasm.

Methods: Information for this report was gathered in clinical practice.

Results: A 48-year-old woman presented with abdominal pain and constipation. She had colorectal adenocarcinoma (CRC) recently diagnosed, renal lithiasis with right ureterohidronefrosis and a thyroid nodule diagnosed in the past 2 years and family history of CRC and thyroid and parathyroid disease. Blood tests showed creatinine 1.2 mg/dL and calcium 15.2 mg/dL. The abdominal-pelvic CT scan showed malignant non-obstructive stenosis of the sigmoid with possible peritoneal, liver and bone metastasis. Although osteolytic hypercalcemia seemed obvious, serum PTH was elevated (2,979 pg/mL; RV 14-72) and bone scintigraphy showed a metabolic bone disease pattern. Therefore, primary hyperparathyroidism leading to hypercalcemia and acute kidney injury was considered, as was MEN syndrome. With hydration, furosemide and zoledronate, her calcaemia decreased. The parathyroid scintigraphy revealed a right hyperfunctioning 5cm mass. She underwent right parathyroidectomy, thyroid lobectomy, liver nodule excision and left hemicolectomy. Pathological analysis diagnosed CRC stage pT4aN2bM1, papillary thyroid carcinoma and atypical parathyroid adenoma. These findings support the hypothesis of MEN syndrome or another hereditary disorder and a family genetic study is in progress.

Conclusions: In this case, primary hyperparathyroidism had probably existed for some time and was responsible for the renal lithiasis. It may also have predisposed to CRC. Concurrent neoplasm and family history make hereditary hyperparathyroid syndrome likely.

PV320 / #431

IS THE WELL-ESTABLISHED ASSOCIATION BETWEEN BMI AND INSULIN RESISTANCE IN WESTERN POPULATIONS A UNIVERSAL TRUTH?: A PRELIMINARY ANALYSIS OF DATA FROM ST MAARTEN

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Background and Aims: Diabetes mellitus is a leading cause of death and disability worldwide. In Western populations, body

mass index (BMI) has consistently been associated with insulin resistance. However, the association between BMI and insulin resistance in Caribbean populations is unknown.

Methods: This study used data from community outreach health fairs in St Maarten. Participants were given free health consultations, including vital signs and blood glucose (BG) levels. BG data was adjusted by fasting or post-prandial state and sorted into normal, pre-diabetic, and diabetic groups based on American Diabetic Association guidelines. BMI data was split into normal (18.5-24.9), overweight (25-29.9), and obese (30+) groups. We then conducted Pearson's chi-squared test using Stata version 13.1 (Stata Corporation).

Results: 64 of 148 participants had data for both BG and BMI. The majority of participants had normal BG (72%, n=46), with 16% (n=10) with glucose intolerance and 13% (n=8) with diabetic range BG. Most participants were overweight/obese, with 27% (n=17) having normal BMI, 39% (n=25) overweight, and 34% (n=22) obese. Pearson's chi-squared test showed no association between BG and BMI. [$\chi^2(4, n=64)=2.74, p=0.60$].

Conclusions: We observed no association between BG and BMI. While further research is needed, this study suggests that well established risk factors for diabetes in Western populations may not be universally applicable. This would be important clinical information for physicians caring for Caribbean populations, allowing them to provide better care.

PV321 / #448

A TRUE DIAGNOSTIC CHALLENGE IN A PATIENT WITH CONFUSION AND LOWER EXTREMITY WEAKNESS

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Background and Aims: Scurvy is characterized by deficiency of vitamin C, a water-soluble micronutrient responsible for the production of collagen, carnitine and catecholamines. Although rare in the developed world, scurvy is potentially lethal. Herein, we present an interesting case of scurvy presenting with confusion and lower extremity weakness.

Methods: A 67-year-old Greek man, with right hemicolectomy two years ago and hypothyroidism under treatment, was admitted to our Clinic due to progressively worsening confusion, disorientation and persistent lower extremity weakness for the last month with concurrent left knee pain. He was a smoker and alcoholic.

Results: The patient was afebrile, his physical examination revealed hepatomegaly and GCS14/15 (E4,V4,M6) with confusion and disorientation. He demonstrated normal strength of lower extremities, tenderness, swelling of his left knee and non-palpable purpura of both his legs. He experienced delirium, underwent a brain CT with no lesions, mass or bleeding. Cerebrospinal fluid

examination was unremarkable, paraneoplastic antibodies were also negative. Left knee hemorrhagic synovial fluid analysis was indicative of gout. He was started on NSAIDs, colchicine and multi-vitamin solution IV. Blood chemistry showed elevated inflammation markers and uric acid, normal ammonia, INR, TSH and B12 levels. Electromyogram was normal; brain MRI revealed multiple microbleeds and ischemic leukoencephalopathy. His vitamin C levels were measured 3.2 mg/l (6-20 max normal). He showed outstanding clinical response after vitamin C administration and was soon discharged.

Conclusions: Although scurvy is rare nowadays, it should be considered in high risk patient groups, since cases may be easily missed due to non-specific initial symptoms.

PV322 / #501

CELIAC DISEASE - AN ATYPICAL AND LATE PRESENTATION

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Background and Aims: Celiac disease (CD) is a malabsorption syndrome with increasing incidence for the past 50 years. The manifestations as many clinical manifestations and the etiology is unknown. The association with gliadin (a constituent of gluten) is well established.

Methods: A 59-year-old woman, with history of hypothyroidism and unspecified cardiac arrhythmia, medicated with levothyroxine and bisoprolol, was referred to Internal Medicine consultation for progressive weight loss in the last year (> 20% of baseline weight), anorexia and asthenia. The physical examination showed signs of cachexia. Analytically, increased transaminases, hypocalcaemia and folic acid deficit.

Results: Abdominal ultrasound was performed and showed signs of mesenteric panniculitis. A CT scan of the abdomen revealed the presence of adenomegaly in the mesentery of the small intestine, with no other major changes. An upper digestive endoscopy was performed and identified villous atrophy of the duodenal mucosa, and biopsies were performed that revealed lymphoid hyperplasia. Anti-gliadin and anti-transglutaminase antibodies were assayed, which were positive and therefore the diagnostic hypothesis of CD was raised. The patient started a gluten-restricted diet with clinical and laboratory improvement.

Conclusions: Given the wide variety of clinical manifestations, the diagnosis of CD is not always easy. Currently, the so-called typical manifestations (abdominal pain and distension, weight loss, diarrhea, flatulence) are less frequent and patients tend to appear with other atypical symptoms. A late diagnosis can lead to the development of several complications, the most important of which is the development of solid tumors or gastrointestinal lymphomas.

PV324 / #537

PHEOCHROMOCYTOMA - FROM SUSPICION TO DIAGNOSIS

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Background and Aims: Pheochromocytoma is a catecholamine-secreting neuroendocrine tumor, which originates from the chromaffin cells of the adrenal medulla. It is rare and can rise to a wide range of clinical manifestations, which makes the diagnosis difficult. The main manifestation is arterial hypertension, which can be associated with severe headache, palpitations and hypersudoresis.

Methods: A 57-year-old man with a previous history of hypertension, taking amlodipine 5 mg and lisinopril 20 mg, with no other relevant medical history. Followed up in the internal medicine consultation for uncontrolled hypertension. No changes on the objective examination.

Results: Analytical study only revealed an increase in metanephrine levels in 24-hour urine. An abdominal CT scan was performed identifying the existence of a mass in the left adrenal with 6 x 5.6 cm in size and with peripheral calcification. Given the diagnostic suspicion, a MIBG (131I-metaiodobenzylguanidine) scintigraphy was performed, which confirmed the presence of a massive pheochromocytoma on the the left adrenal gland, but with no evidence of metastasis. The patient started treatment of hormone block with phenoxybenzamine and propranolol, having subsequently undergone a left adrenalectomy that was uneventful.

Conclusions: The diagnosis of pheochromocytoma is based on the investigation of urinary metanephrines and MIBG scintigraphy, which have a sensitivity and specificity around 100%. After opting for adrenalectomy, it is important to perform pre-surgical blockade of alpha and beta receptors in order to minimize intraoperative hemodynamic instability. The prognosis for non-metastatic pheochromocytomas is good, with a 5-year survival rate of 95%.

PV325 / #567

ARGININOSUCCINATE LYASE DEFICIENCY DECOMPENSATION: PRESENTATION OF A 23-YEAR OLD MALE AND THE IMPORTANCE OF INTER-SPECIALTY COLLABORATION IN MANAGING COMPLEX CASES

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Background and Aims: To highlight the effectiveness and challenges of multidisciplinary (MDT) and inter-hospital collaboration in the management of adult patients with metabolic syndromes.

Methods: We extracted data from medical records including the presenting complaint, medical history and laboratory results. Collateral history and consent was taken from the family.

Results: A 23-year old male presented to the emergency department of a regional hospital with a one-day history of nausea and vomiting. On presentation he was pale, fatigued, and brought in via wheelchair. He has argininosuccinate lyase deficiency (ASLD), moderate global developmental delay and is non-verbal. His ammonia levels were 289 umol/L (18-72 umol/L). The clinical impression was decompensated ASLD secondary to dehydration. He required a high level of care and was admitted to the High Dependency Unit. The goals of treatment were to down-titrate the ammonia levels and ensure he was not in caloric deficit. An MDT approach was taken, with involvement from the speech and language therapists, dietitians, pharmacists, occupational therapists, physiotherapists and anaesthetics. The patient is known to specialized center, whose input guided our clinical management. His treatment was not without difficulties - lipaemic blood samples due to lipid infusions prevented accurate results, and sourcing specialised medications proved challenging.

Conclusions: Proactive and cohesive management of paediatric metabolic syndromes means that more patients are living well with these conditions. As our case illustrates, general physicians need to be aware of the challenges of managing patients with decompensated metabolic syndromes in adulthood, and the importance of involving their interdisciplinary colleagues nationally to provide individualised management plans.

PV326 / #595

AN UNUSUAL MANIFESTATION OF PROSTATE CANCER

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Background and Aims: Hyponatremia represents a common finding in hospitalized patients. Differential diagnosis is fundamental to recognize etiology of this electrolyte disorder and to provide the best therapy.

Methods: A 72 year old man presented to our Hospital for two month history of nausea, dizziness and fatigue associated with hyponatremia. Investigations were performed to explain this condition.

Results: Laboratory finding revealed serum creatinine 0.58 mg/dL; sodium 120 mmol/L; potassium 3.9 mmol/L; serum osmolality 251 mOsm/kg; urine osmolality 603 mOsm/kg, urine sodium and potassium concentration was 158 mEq/L and 30.52 mEq/L, respectively. Levels of TSH, ACTH, cortisol, LH, FSH, IGF, prolactin and testosterone were normal. Diagnosis of syndrome

of inappropriate secretion of antidiuretic hormone (SIADH) was suggested. A total body CT disclosed an enlarged irregular prostate and bone metastasis. The transrectal needle biopsy of the prostate showed poorly differentiated adenocarcinoma, with neuroendocrine aspects, amounting for more than 10% of the examined specimen. The serum PSA level was 5.37 ng/ml.

Conclusions: In this patient the laboratory findings suggested a diagnosis of SIADH, characterized by inappropriately elevated serum ADH level, deriving from neurohypophysis or ectopic production. In the latter setting, malignancies have to be excluded. Paraneoplastic SIADH is rarely observed in association with prostate cancer. When it happens, tumors are frequently resistant to hormonal treatment due to neuroendocrine features of the neoplasm. In our patient, only after the introduction of tolvaptan therapy, sodium levels kept in range and symptoms disappeared. For his prostate cancer patient was directed towards the oncology clinic.

PV327 / #606

AN ADDISON DISEASE REVEALED WITH HYPONATREMIA

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Background and Aims: Addison's disease is a rare endocrine disorder characterized by primary adrenal insufficiency that displays nonspecific symptoms, like hyponatremia, which can delay the diagnosis.

Methods: Case report based on hospital clinical process consult.

Results: A 48-year-old man, with no major personal history and no usual medication, resorted to Emergency Room for gait imbalance, anxiety and vomiting. On objective examination spatial disorientation and motor slowing without focal deficits were observed. He performed a Cranial CT scan that showed no changes and the analytical study exhibited hyponatremia of 108 mmol/L. Excluded hyperglycemia, hyperlipidemia and hypothyroidism in a patient without a history of recent surgery, fluid therapy, neoplasia, potomania and drug use, the SIADH diagnostic hypothesis was considered. He performed therapy with hypertonic NaCl and fluid restriction with an increase in Na that was subsequent decreasing even with treatment with low doses of diuretics, intake of salt diet and fluid restriction. A hormonal study was carried out that showed a marked decrease in serum and urinary cortisol and an increase in ACTH together with weight loss in the last months, skin hyperpigmentation and hypotensive profile. The diagnostic hypothesis was Addison's disease and the patient started treatment with corticosteroids showing clinical and laboratory response.

Conclusions: Addison's disease is characterized by the destruction of the adrenal cortex and autoimmune adrenalitis is the main

cause. The treatment involves corticosteroids which allows the patients have a normal life. However, education of ever-present danger of adrenal crisis and vigilance for the occurrence of others autoimmune diseases is essential.

PV328 / #666

LONG TERM GLYCEMIC EFFICACY OF GLARGINE 300 UNITS/ML IN T2DM PATIENTS INADEQUATELY CONTROLLED ON ORAL THERAPY IN REAL WORLD SETTING

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Background and Aims: We conducted a longitudinal cohort study using electronic health record data from Diab Clinic Registry (DCR) database (n=107).

Methods: We evaluate persistence of glycemic efficacy and safety of Glargine 300 units/ml (U 300), when inadequately controlled on oral therapy and adherent for last 18 months with at least one follow up.

Results: 87 patients (56 males, 31 females) met criteria. Mean age 59 years (maximum 81, minimum 32, SD±12, 95% CI 54 to 63). Mean duration of diabetes was 11 years (maximum 32, minimum 1, SD±8.1, 95% CI 8.1 to 14). Mean baseline HbA1c at initiation 9.6% (SD±1.8, 95% CI 9 to 10) after 18 months significantly decreased to mean HbA1c 8.5 % (SD±1.2, 95% CI 8 to 8.9), with a mean HbA1c reduction of -1.1%, (p=0.0047). Mean baseline body weight at initiation 67 kg (SD±6.9) was unchanged at 67 kg (SD±5.1, range 19) (p=0.92 NS). Mean baseline dose at initiation 14 units (SD±6.8, 95% CI 11 to 17) after 18 months decreased to 12 units (SD±2.1, 95% CI 11 to 12) (p=0.08 NS). 5 patients discontinued due to mild hypoglycaemia, cost of therapy and remarkable reduction in HbA1c (-3.6%). No other side effects were reported.

Conclusions: Despite numerous limitations, U300 as customised approach demonstrated long term persistence of glycemic control with weight neutral effect and without any overall increase in incidence of hypoglycaemia. U300 would be helpful to reduce clinical inertia for insulin initiation, which further needs corroboration with larger long-term studies.

PV331 / #669

SYSTEMATIC REVIEW OF ONGOING CLINICAL TRIALS ASSESSING THE COMPARATIVE THERAPEUTIC EFFICACY AND SAFETY OF INSULIN GLARGINE 300 U/ML WITH OTHER INSULIN REGIMENS

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Background and Aims: To systematically evaluate the study designs and the outcomes being analysed in the ongoing trials evaluating the efficacy and safety of Insulin Glargine 300 U/ml

Methods: We reviewed contemporary protocols of trials that are currently ongoing through WHO- ICTRP (www.who.int/ictrp/search/en), www.clinicaltrials.gov trials registry database. Latest evaluation was on January 15, 2020 with key word 'insulin glargine U 300', for the trials initiated over last three years (2017-2019). Two researchers independently extracted the outcomes analysed

Results: We evaluated clinical parameters to improve metabolic control and lower risk of hypoglycaemia. Four trials (including, INEOX) are cumulatively recruiting 772 patients; across USA, Spain, Hong Kong and Australia. The study designs include randomised, parallel designed studies. Two trials each are evaluating patients in T1DM (n=638) and in T2DM (n=134). U300 is actively compared with insulin glulisine, lispro, ultralong-acting basal insulin analogue, insulin aspart in head to head trials in T1DM. In T2DM U300 is compared with neutral protamine hagedorn insulin and insulin glulisine, including for hypoglycaemia in elderly. Mean number of participants being enrolled is 193 (SD±147, maximum 338, minimum 50, 95% CI -41 to 427). Cumulative duration is 18 months, with mean duration 4.5 months (SD±1.7, maximum 6, minimum 3, 95% CI 1.7 to 7.3). Trials evaluate the glycemic control (HbA1c), oxidative stress, glycemic variability (CGM monitoring) and time spent in hypoglycaemia

Conclusions: We evaluated emerging outcomes based on clinical, genetic, non-glycemic and quality of life parameters comparing U300 with other insulin regimens

PV332 / #673

MY EYES POP OUT OF MY HEAD

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Background and Aims: Thyroid-associated ophthalmopathy (TAO) is an ocular condition that frequently manifests with thyroid dysfunction. It is usually seen in Graves' disease (80%), but it may also occur in patients with thyroid cancers, autoimmune hypothyroid due to Hashimoto's thyroiditis (10%), as well as individuals with no thyroid disease (10%). Ophthalmopathy is

reported to occur in 2-6% of patients with Hashimoto's thyroiditis.

Methods: This case report resulted from reviewing the clinical process and a brief review of the relevant literature.

Case Description: The authors present the case of a 69 year old woman, with no relevant health history, who went to the Emergency Department complaining of bilateral eye pain that had begun 2 weeks previously and was worsening daily; she also mentioned she found her eyes were "swollen". At examination she had bilateral eyelid retraction, with no other relevant physical findings. A Computed Tomography scan was performed, showing bilateral proptosis, thickening of the extraocular muscles, particularly the inferior, lateral and medial rectus, sparing the tendinous insertions. This description was compatible with TAO. The patient was referred to an Internal Medicine. Her diagnostic workup showed an ultrasound compatible with thyroiditis and anti-thyroid peroxidase antibodies markedly elevated; her thyroid function was normal. Due to family problems, the patient declined further clinical measures. Despite an initial worsening of the eye pain and periorbital inflammation, there was a spontaneous resolution of the disease. The patient is currently euthyroid and without orbitopathy.

Conclusions: We highlight this case due to the rare cause of TAO - euthyroid hashimoto disease - and its spontaneous resolution.

PV333 / #758

HYPONATREMIA ON ACUTE MEDICAL ADMISSION

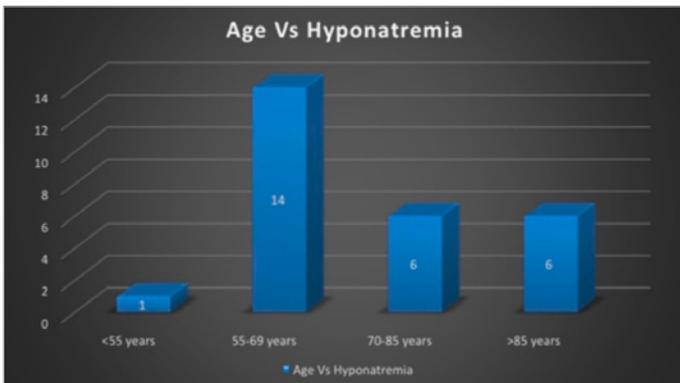
Nwe Ni Aung

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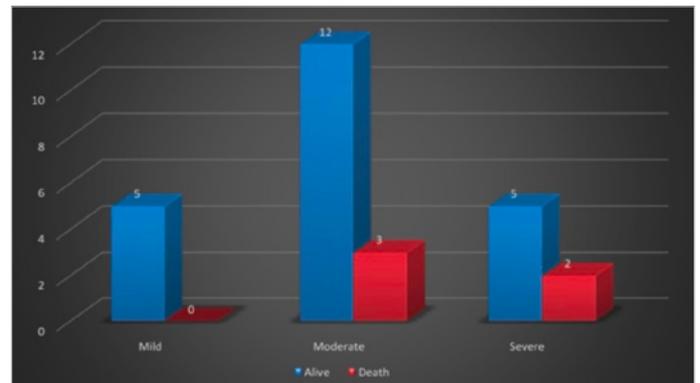
Background and Aims: Hyponatremia is one of the most common electrolytes abnormalities in acute admission. It is also associated with increased morbidity and mortality. In order to find out how many medical patients admitted to hospital had hyponatremia, how many of them properly investigated and referred to Endocrine team, a small survey was conducted in a District General Hospital in UK. We aim to 1) To find out percentage of patients admitted with hyponatremia on acute medical take. 2) Whether hyponatremia is properly investigated. 3) Appropriate referral to Endocrine team was made.

Methods: The study was conducted retrospectively by collecting data of medical patients admitted Dorset County Hospital from 13/03/2020 to 26/03/2020. The admission list was obtained from Careflow (Electronic medical patients admission record) and each patient renal profiles was accessed through Integrated Clinical Environment (ICE). If the patient had hyponatremia, then checking further investigations such as cortisol, TFT, urinary Na, serum and urine osmolality were performed and accessed how many of them had been referred to Endocrinologists through hospital referral system.

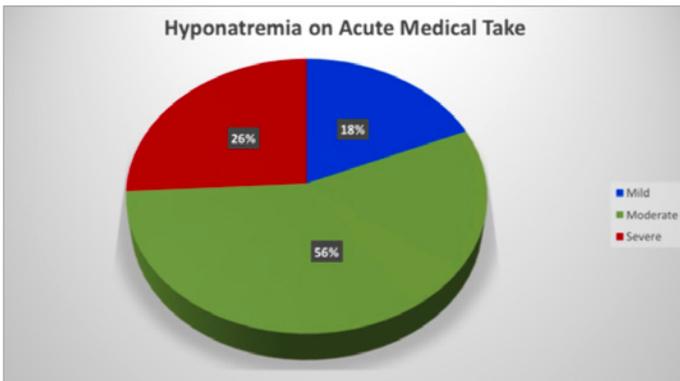
Results: After excluding 6 patients who didn't have renal profile, total of 257 patients were admitted. Out of 257, 28



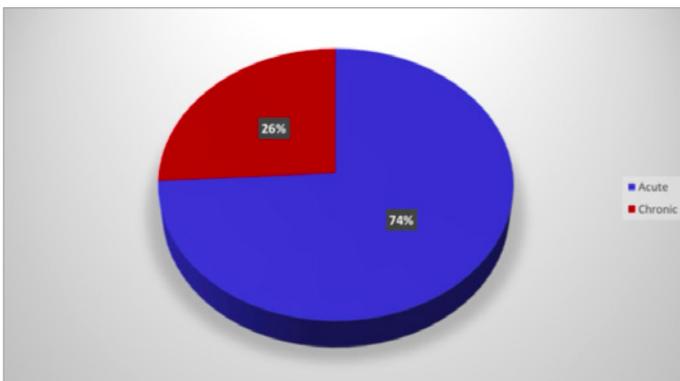
#758 Figure 1: Age vs hyponatremia



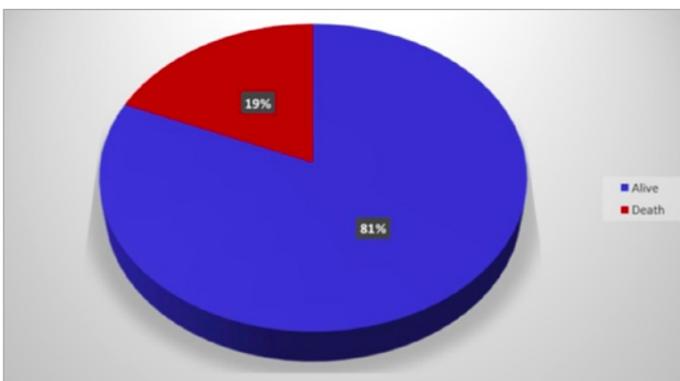
#758 Figure 5: Severity of hyponatremia vs mortality



#758 Figure 2: Severity of hyponatremia



#758 Figure 3: Acute or chronic hyponatremia



#758 Figure 4: Mortality of hyponatremia on acute admission

(10.5%) patients had hyponatremia. 1 out of 28 patients had pseudohyponatremia secondary from high CBG.

Conclusions: Hyponatremia on acute admission was 10.5%. Only 2 out of 7 severe hyponatremia had been referred to Endocrine Team (28%). Only 2 out of 7 severe hyponatremia were properly investigated (28%). Overall, hyponatremia management in Dorset County Hospital should be optimised by referring severe hyponatremia patients to Endocrine Team and performing appropriate investigations to get correct diagnosis.

PV334 / #795

LATENT AUTOIMMUNE DIABETES IN ADULTS: WHEN NOT EVERYTHING IS TYPE 2 DIABETES MELLITUS

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Case Description: A 47-year-old woman with a personal history of epilepsy and chronic tension headache went to the Emergency Department due to an insidious condition of polydipsia, polyuria, prostration, vomiting and abdominal pain. BMI 23.

Clinical Hypothesis: Although Diabetes Mellitus is more often divided into type 1 (DM1) and type 2 (DM2), it comprises other subtypes that may have different pathophysiology, evolution and treatment. One of them is the Latent Autoimmune Diabetes of Adult (LADA) which has genetic characteristics of the main subtypes and can occur in 2-12% of patients diagnosed with DM2.

Diagnostic Pathways: The study revealed: blood glucose 755 mg/dL, metabolic acidosis with acidemia (pH 6.91, HCO₃⁻ 2.4 mmol/L), HbA_{1c} 11.6%, renal dysfunction (creatinine 1.5 mg/dL), without other changes. Decompensated inaugural DM2 with diabetic ketoacidosis (DKA) was assumed, with volumetric support and insulin therapy with DKA and renal dysfunction resolution. She was discharged with metformin + vildagliptin 850/50 mg bid and insulin glargine 12 units at night. The remaining complementary study revealed: C peptide 1.22, increased GAD65 antibody (45.7 U/ml) and positive Langerhans anti-islet antibodies (15.86).

Conclusion and Discussion: LADA was diagnosed. DKA is not typical of DM2. This patient was <50 years old, had acute

symptoms and a BMI <25 kg/m². In the presence of any of these factors, antibody titers should be tested. The presence of at least two has a sensitivity of 90% and a specificity of 71% in the identification of anti-GAD (GAD). GAD are characteristic of LADA but can become negative over time.

PV335 / #866

RESET THE SYSTEM: AN UNCOMMON CAUSE OF HYPONATREMIA

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Case Description: 60 year-old female, history of hypertension and smoking, medicated with valsartan/hydrochlorothiazide. Admitted for altered neurological status with confused and slurred speech and extreme exhaustion of 2 days. At admission: confused, euvolemic, BP: 190/97 mmHg; HR: 75 bpm. Normal EKG and brain CT. Laboratory: Na: 97 mEq/L; Creat: 0.5 mg/dL; Urea: 14 mg/dL.

Clinical Hypothesis: Hyponatremia is the most common electrolyte abnormality (15-20%) and chronic hyponatremia may appear minimally symptomatic or asymptomatic. The differential diagnosis are broad, and the reset osmostat (RO) is an uncommon and under recognized cause of euvolemic hyponatremia.

Diagnostic Pathways: Serum osmolality 211 mOsm/kg, urine osmolality 234 mOsm/kg. Past lab works showed a hyponatremia (~128 mEq/kg) attributed to psychogenic polydipsia. Initial impression was Syndrome of Inappropriate Antidiuretic Hormone Secretion (SIADH). A body CT scan performed was normal. Thyroid function tests and morning cortisol levels were normal. UNa: 43 mEq/24h. Treatment with fluid restriction and sodium supplementation was started. Sodium levels did not improve. Water load test was performed. RO was diagnosed and patient was discharged without any sodium supplementation and fluid restriction.

Conclusion and Discussion: RO should be considered in patients with chronic hyponatremia. RO is believed to be a variant of SIADH where the urinary diluting and concentrating capabilities are preserved. The water load test can be used to differentiate them. The etiology is unknown, associations with elderly, diuretics and psychogenic polydipsia have been reported like in this case. It's important to diagnose RO in order to avoid unnecessary investigation and treatment.

PV336 / #873

RECURRENT DIABETIC KETOACIDOSIS: PREDICTORS AND OUTCOMES

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Background and Aims: The data about risk factors for recurrent episodes of diabetic ketoacidosis (DKA) is controversial. The purpose of this study was to identify risk factors for the occurrence of recurrent episodes of DKA that may allow for the development of an effective prevention strategy.

Methods: We performed a retrospective analysis of hospital admissions for DKA in adult patients between 2004, and 2017 to the Soroka University Medical Center. The clinical characteristics and outcomes of DKA of patients were stratified into an isolated episode of DKA (group 1) and recurrent episodes (group 2). The outcomes were recurrence of DKA at any time, mortality, ICU admission and severity of DKA.

Results: 385 patients were included in the study, 281 had a single admission of DKA, and 104 had recurrent admissions. There were no statistically significant differences between the two groups in demographic or clinical variables, biochemical data, or medications. Patients in the recurrent DKA group had a younger age at diabetes diagnosis, 32.± 17.08 vs. 36.13±19.52 (p=0.05). Patients with A1C greater than 9.0% were associated with recurrent DKA in cox regression analysis (HR 2.023; 95% CI 1.112-3.679; p=0.021). Recurrent DKA was a significant predictor of one-year mortality in cox regression analysis (HR 0.172; 95% CI 0.04-0.742; p=0.018).

Conclusions: Poorly controlled diabetes with a high level of A1C is associated with an increased risk for the development of recurrent DKA. These patients should be identified and treated with a more strict diabetic regimen to lower the chance of a DKA recurrence.

PV337 / #921

HOMONYMOUS HEMIANOPIA – A CLUE FOR SOMETHING MORE

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Case Description: A 54-year-old woman, with known hypertension and dyslipidemia, presented with a 2-week history

of headache and positive symptoms in the left visual field. She also stated polydipsia and polyuria, as high blood pressure. On the examination a homonymous left hemianopia was identified, as well as brief episodes of left cephalic and ocular rotation, suggesting focal epileptic seizures of the right brain hemisphere, with normal blood pressure.

Clinical Hypothesis: Type 2 diabetes mellitus and epileptic seizures which may be due to vascular etiology, metabolic encephalopathy, infection disease, posterior reversible encephalopathy syndrome, space-occupying lesion or primary epilepsy.

Diagnostic Pathways: The electroencephalogram confirmed right epileptic seizures, the oftalmologic observation excluded ocular alterations and the laboratory results showed hyperglycemia with normal pH and excluded infectious or autoimmune etiologies. Magnetic resonance imaging (MRI) presented right occipital hypointense white matter changes, without vascular defects, suggesting postictal etiology. The visual changes and epileptic activity were corrected after glycemic normalization and antiepileptic drugs. Two months later the patient was asymptomatic, with good glycemic control and the MRI showed reversion of the previous changes.

Conclusions and Discussion: Nonketotic hyperglycemia has been associated with visual field and neurological alterations assumed in context of metabolic encephalopathy with specific MRI alterations, with or without epileptic activity, typically reversible with glycemic control. The awareness of these neurological manifestations is important to the diagnosis and management of these patients.

PV338 / #938

HYPONATRAEMIA AS FIRST MANIFESTATION OF A PITUITARY MACROADENOMA

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Clinical description: Hyponatraemia has been reported as an uncommon presentation of pituitary macroadenoma and it is generally determined by decreasing the negative feedback effect of glucocorticoids on antidiuretic hormone and/or decreasing glomerular filtration due to hypocortisolism. Here we present a case of hypopituitarism caused by pituitary macroadenoma, which initial manifestation was hyponatraemia due to secondary adrenal insufficiency. 80-years-old male with personal history of arterial hypertension, ulcerative colitis, chronic obstructive pulmonary disease, sequelae of pulmonary tuberculosis and benign prostatic hypertrophy. Usually treated with perindopril/indapamide, tamsulosin, simvastatin, aminophylline and inhaled bronchodilators. He was admitted to the emergency department for asthenia, weight loss, lipothymia, unbalance and periods of disorientation with gradually worsening. Analytically with hyponatraemia (Na⁺ 120mmol/L), he was admitted for study and ionic correction.

Clinical Hypothesis: During hospitalization he started correction with sodium chloride and diuretics were discontinued, initially with slow improvement but further deterioration after suspension. After excluding the hypothesis of hyponatremia in the context of diuretics, a broader complementary study was carried out and it was compatible with pituitary macroadenoma, affecting the adrenal and gonadal axis (without reaching the thyroid axis).

Diagnostic pathway: After the start of glucocorticoid replacement, there was a clear clinical improvement and sustained normalization of natremia. He was referred for Neurosurgery outpatient department, having undergone surgical intervention.

Conclusion and Discussion: Although hyponatraemia is frequent, in many cases the etiology is not determined, and the degree of suspicion is important for identifying rare causes such as adrenal insufficiency.

PV339 / #941

WHEN TWO BECOMES ONE: NEUROLOGICAL MANIFESTATION OF VITAMIN B12 DEFICIENCY

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Background and Aims: Vitamin B12 deficiency has a wide spectrum of clinical presentation with a variety of neurological symptoms and signs. Early diagnosis and treatment are crucial to prevent irreversible damage to the nervous system.

Methods: Single patient case report

Results: A 72-year-old woman with 2 weeks history of progressive bilateral hand and feet numbness followed by paresthesia with subsequent development of weakness, and ataxia accompanied by weight loss, vomitus, and diarrhea. She had no current or past exposure to heavy metals, toxins, or drugs. The neurological assessment revealed glove and stocking paresthesia with impaired joint position and vibration sensation in toes and fingers and hyperreflexia. Full blood count revealed macrocytic anemia (Hb 10.4 g/dl; mean corpuscular volume 116.7 fL); white blood cell count, urea, and electrolytes were normal. Further study showed vitamin B12 deficiency (<83 pg/mL), normal folic acid, and thyroid function. The autoimmune screening was positive for autoantibodies against intrinsic factor and parietal cells. No evidence of infection or neoplastic condition. Gastroscopy showed gastric mucosa atrophy awaiting biopsy results. Magnetic resonance imaging (MRI) of the spine revealed an increased T2-weighted signal in the posterior columns of the cervical spinal cord, extending from C1 to C7 level, without any gadolinium enhancement on T1-weighted contrast images. These findings were consistent with subacute combined degeneration and autoimmune gastritis with pernicious anemia. The patient's symptoms considerably resolved over the ensuing months with parenteral B12 therapy.

Conclusions: Neurological symptoms in vitamin B12 deficiency are frequent. Early spinal MR imaging assists in early diagnosis and treatment.

PV340 / #996

HYPERLACTACIDEMIA IN DIABETIC KETOACIDOSIS

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Background and Aims: Diabetic ketoacidosis (DKA) is an acute complication of diabetes mellitus. Lactic acidosis is a common finding in DKA and its clinical significance is not fully understood. The main objective of the present study is to identify whether hyperlactacidemia is associated with a worse outcome in DKA.

Methods: Observational retrospective study of all admissions to the emergency department, between 2014 and 2018, with a diagnosis of DKA. Statistical analysis was performed using IBM SPSS Statistics v25.0.

Results: 162 admissions to the emergency department by DKA with a higher prevalence of male patients (63.8%) and type 1 DM (55.8%), with an average age of 45 years (± 18.2). The average lactate was 2.35 (± 1.76) and 60 admissions by DKA (37%) presented lactates > 2 mmol/L and 22 admissions (13.6%) had lactates > 4 mmol/L. Hyperlactacidemia (lactates > 2 mmol/L) was associated with a higher Elixhauser Index [$p=0.02$; OR 1.37 CI 95% (1.05-1.78)], greater DKA severity ($p=0.02$), elevated serum creatinine [$p < 0.001$; OR 6.01 CI 95% (2.66-13.58)] and need for hospitalization [$p=0.006$; OR 3.54 CI 95% (1.57-7.97)]. There was no association between hyperlactacidemia (lactates > 2 mmol/L or > 4 mmol/L) with admission to the Intensive Care Unit (ICU) or mortality at 30 days. Lactates correlate positively with higher blood glucose at admission ($p < 0.01$).

Conclusions: About one third of the DKA have an increase of lactates, however their increase is not associated with an increase in ICU stay or mortality. Hyperlactacidemia is associated with a higher number of hospitalizations, Elixhauser index and acute kidney injury.

PV341 / #999

PITUITARY APOPLEXY DURING PREGNANCY: AN EXTREMELY RARE CAUSE OF EXPLOSIVE HEADACHE

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Case Description: 36-years-old female with type-1 diabetes mellitus and 30-week pregnant, presents to the ER with a sudden explosive bilateral frontal headache, intensity 9/10, associated with nausea, vomiting and photophobia. Thorough neurologic examination showed no alterations.

Clinical Hypothesis: In a pregnant woman, there are some important headache causes that must be excluded, like pre-eclampsia and central venous thrombosis.

Diagnostic Pathways: Due to radiation concerns, a cranial MRI was performed and highly suggestive of pituitary apoplexy with apparent compression and oedema of adjacent optic fibres. Ophthalmology screening for visual fields excluded chiasmatic compression and, after discussion with Endocrinology and Neurosurgery and excluding emergent need of surgery, we started hydrocortisone after dosing pituitary hormones (except prolactin, LH and FSH due to pregnancy) and maintained surveillance. Blood tests including hormonal dosing were normal.

Conclusion And Discussion: Pituitary apoplexy is an extremely rare cause of headache and happens in only $< 1\%$ of patients with a pituitary tumour. It is a potentially life-threatening endocrine disorder, so it is important to start treatment without waiting to blood tests results.

PV342 / #1000

ACUTE PANCREATOGENIC DIABETES

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Case Description: A 60 year-old male was admitted to the ER department due to polydipsia, polyuria, asthenia and general discomfort with a few days' duration. He had been admitted in hospital six months prior due to complicated acalculous acute pancreatitis due to chronic alcoholism and splenic vein thrombosis.

Clinical Hypothesis: Acute pancreatitis is a clinical entity characterized by pancreatic inflammation by consequence of enzymatic digestion. Even though 75 to 80% of cases have mild severity and a very good prognosis, patients may have recurrent or severe episodes, developing chronic pancreatitis and systemic complications.

Diagnostic Pathways: The patient had no changes on objective examination. Arterial blood gas analysis revealed metabolic acidemia (pH 7.31), hyperglycaemia (> 500 mg/dL) and ketonemia (6.4 mmol/L). Glycated haemoglobin test (HbA1c) showed severe dysglycaemia, with a value of 21.6%. CT scan showed a residual pancreatic pseudocyst and a subcapsular pseudonodular IV segment hepatic lesion, later confirmed as focal steatosis by ecography. He was discharged on the 10th day of admission with insulin therapy.

Conclusions and Discussion: Secondary diabetes can result from many independent processes, which lead to the development

of insulin resistance or destruction of pancreatic beta cells. Pancreatogenic diabetes may develop in chronic diseases affecting primarily the exocrine pancreas. However, it typically only happens after longstanding and extensive damage to the pancreas. This case study shows that it may also develop in severe cases of acute pancreatitis, revealing the importance of glycaemic control and follow-up in these patients.

PV343 / #1008

CHRONIC HYPOCALCEMIA - FROM SEIZURE TO HYPOPARATHYROIDISM

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Case Description: Chronic hypocalcemia is a frequent cause of neurological symptoms, such as paresthesias, tetany, papilledema, extrapyramidal signs, depression, personality disorder, cognitive impairment and seizure. Hypocalcemia can be classified according to the blood levels of parathyroid hormone (PTH), thus, inadequately low PTH levels indicate hypoparathyroidism and high levels indicate normal responsiveness of the parathyroid gland to low calcium levels in blood (secondary hyperparathyroidism). The authors present the case of a 67-year-old patient submitted to total thyroidectomy 35 years ago, due to benign nodular pathology. She was admitted in the emergency room with tonic-clonic seizures, accompanied with subsequent marked irritability. She complained of asthenia for the past 4 years, without other symptoms. Blood tests showed severe hypocalcemia, hypovitaminosis D and mild hyperphosphatemia, with normal PTH levels (although at the lower limit of normality). Intravenous calcium replacement was performed, and the patient was discharged with a prescription of calcium and vitamin D. Despite replacement therapy, she maintains mild hypocalcemia, with moderate to severe hyperphosphatemia, vitamin D levels close to normal and low levels of PTH.

Clinical Hypothesis: Chronic hypocalcemia and hypovitaminosis D are admitted in the context of primary hypoparathyroidism, of probable post-surgical etiology.

Diagnostic Pathways: Although rare, hypoparathyroidism most often occurs after surgical damage of parathyroid glands, which is more often transient, and predominantly asymptomatic.

Conclusion and Discussion: The incidence of permanent hypoparathyroidism is low, and usually occurs in the first 48 hours after surgery and persists beyond 6 months, with intense initial symptoms. The case described is atypical and the diagnosis was made about 35 years after surgery.

PV344 / #1028

CLINICAL AND PROGNOSTIC FEATURES OF DKA ACCORDING TO TRIGGER OF SYNDROME.

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Background and Aims: Diabetic ketoacidosis is an acute metabolic, life-threatening complication of diabetes mellitus with a mortality rate that now stand at less than 1% when the main cause of death is the precipitating factor that led to the hyperglycemic crisis.

Methods: a retrospective study that include 385 DKA patients from 2004 to 2017 that compare demographic, clinical and mortality rate by different precipitating factor. The primary outcome was in hospital mortality.

Results: patients with infectious and non-metabolic trigger (CVA, MI, etc) had higher charlson index, higher risk being mechanical ventilated(14% vs 3% p <0.01), and longer duration of hospitalization (5 days vs 3 days p <0.001) and higher mortality (OR 4.402 (1.35-14.30 CI)).

Conclusions: It is necessary to find the trigger which led to the DKA and start the treatment as early as possible in addition to the metabolic treatment especially when the trigger is an infectious disease in order to lower the in hospital mortality rate and shorten the duration of hospitalization.

PV345 / #1033

WHEN A DIAGNOSIS BECOMES A CHALLENGE

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Case Description: Thyrotoxic periodic paralysis (TPP) is a rare but serious complication of hyperthyroidism and is characterized by sudden onset paralysis associated with severe hypokalemia. We present a case of a 42-year-old male, amateur cyclist, who presented to our emergency room with tachycardia (112 bpm), sudoresis and early morning sudden symmetrical lower limb weakness with gait impairment, not associated with pain or sensory complaints. He reported occasional less severe muscle weakness, palpitations and tremors episodes over the last 4-6 weeks. There were no personal or familiar history of motor disorder.

Clinical Hypothesis: Thyrotoxic Periodic Paralysis

Diagnostic Pathways: Extensive laboratory and imaging studies were unremarkable besides a severe hypokalemia (2.1 mEq/L), hypomagnesemia and suppression of thyroid stimulating hormone (TSH) level (0.0015 mUI/mL) by a high free T3 (6.5 pg/mL) and T4 (3.01 ng/dL). A betablocker (propranolol) and intravenous potassium supplementation were initiated, with rapid clinical

muscle strength improvement. Our patient had a grandfather of Asian descent and, importantly, he was started on methimazole, after which no further muscle weakness episodes were reported when euthyroidism was achieved.

Conclusion and Discussion: A diagnosis of TPP was suspected supported by the unexplained acute hypokalemic paralysis in a context of thyrotoxicosis, eventually triggered by the cycling activity. Although seldom reported on non-asians, TPP is increasingly reported on the caucasian population. Factors like carbohydrate rich meal, physical exercise, steroids and stress can precipitate an exacerbation of TPP. This case shows TPP should not be dismissed as a differential diagnosis for the Caucasian patients with paralysis, severe hypokalemia and hyperthyroidism, being a potentially life-threatening condition with readily available treatment.

PV346 / #1043

CARNITINE PALMITOYLTRANSFERASE II DEFICIENCY - WHEN MUSCLES GO ON A DIET

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Case Description: A 48-year-old white man, without any known medical conditions, presented to the emergency department complaining of abdominal pain, generalized myalgia and dark urine starting 5-hours after fasting. He also mentioned rhinorrhoea and fever the day before, for which he took ibuprofen. The patient reported similar episodes of exercise-related myalgia and dark urine since the age of 10 years old. A positive family history for Carnitine-palmitoyl transferase II (CPT II) deficiency was present, affecting his fraternal twin sisters. Upon observation, he presented conjunctival hyperaemia, nasal congestion, and a generalized abdominal pain without guarding. Laboratory tests revealed elevated white blood cell count, CRP, transaminases, lactate dehydrogenase, total creatine kinase and myoglobin; urinalysis showed proteinuria and haemoglobinuria.

Clinical Hypothesis: Rhabdomyolysis was suspected in a patient with probable CPT II deficiency triggered by an upper respiratory tract infection, exposure to ibuprofen and prolonged fasting. He was referred to Internal Medicine consultation, waiting muscle biopsy and genetic study, and with recommendation for a low-fat diet with supplementation of carbohydrates and medium chain triglycerides.

Diagnostic Pathways: Most cases of rhabdomyolysis are of acquired etiology, however, given the recurrence of episodes, in the context of exercise, infection and/or fasting, a metabolic cause should be suspected.

Conclusion and Discussion: CPT II deficiency is a rare autosomal recessive disorder of the oxidation of long-chain fatty acids. The myopathic form is generally mild and characterized by episodes of

myalgia, usually induced by exercise, sometimes associated with myoglobinuria. The diagnosis is established by reduced CPT II activity in the muscle or by molecular genetic tests.

PV347 / #1069

A RARE CASE OF INSULINOMA IN A GERIATRIC PATIENT

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Case Description: A 89-year-old female known with dementia, presented to the emergency department with complains of altered state of consciousness, fatigue and shakiness with 2 months duration. These symptoms often improved after eating. On physical examination she was disorientated. Initial laboratory results showed a serum glucose level of 25 mg/dL, hypokalemia and the other hematological and biochemical analyses were in normal values.

Clinical Hypothesis: Neoplasia, hypoglycemia secondary to drugs, undiagnosed diabetes, liver or renal failure, insulinoma, hypopituitarism.

Diagnostic Pathways: The symptoms improved after administration of intravenous dextrose. The cranial computed tomography (CT) did not reveal any acute damage. At the time of hypoglycemic episode, after suspension of intravenous dextrose, a blood sample was taken which revealed a serum glucose of 30 mg/dL, insulin level of 8.5 mcg/dL and C-peptide of 5.2 ng/mL (1.5-5.0). Serum cortisol, adrenocorticotrophic hormone, parathormone, prolactin and thyroid function were within normal range. Abdominal CT scan with contrast demonstrated a single lesion with enhancement, located at the head of the pancreas measuring 10mm in diameter (image below). No distant metastases were identified. The findings confirmed the hypothesis of insulinoma.

Conclusions and Discussion: The treatment of choice of insulinoma



#1069 Figure

is surgical excision. This patient was a high-risk candidate for surgery, making medical treatment a more appropriate choice. Dietary management (frequent meals, avoiding fasting) combined with diazoxide 100 mg twice a day, was implemented. The treatment proved successful with favorable symptom control. With this report, the authors pretend to raise awareness of this rare condition and to highlight the importance of including insulinoma in the differential diagnosis of hypoglycemia, even at older ages.

PV348 / #1132

CYSTIC FIBROSIS, A POSSIBLE DIAGNOSIS IN ADULTHOOD: A CASE REPORT

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Case Description: This case is about PJ, 18 years old, male, black and with no relevant background. He went to the ER with colic-type abdominal pain in the left quadrants, vomiting and fever with two days of evolution. On physical examination, he had pale and dehydrated mucous membranes and painful abdominal palpation, without guarding.

Clinical Hypothesis: Analytically, lipase 327 U/L, amylase 160 U/L, ALT 15.4 U/L, AST 22.2 U/L and FA 222 U/L stood out. Radiologically, abdominal ultrasound identified a reduction of the echogenicity in pancreas' parenchyma, an aspect compatible with the process of acute pancreatitis.

Diagnostic Pathways: The patient denied previous trauma, consumption of illicit drugs, alcohol or medication, steatorrhea or symptoms of autoimmune disease. To clarify the cause of pancreatitis, CMRI was performed, which excluded microlithiasis. Autoimmunity studies were negative. However, sweat tests also requested were positive. During hospitalization, the patient's clinical status improved and pancreatic enzyme values normalized. The genetic tests carried out identified a variant of the CFTR.

Conclusions and Discussion: This is a case of CFTR-related disorder, in which the clinic is limited to one organ and there is evidence of CFTR dysfunction if the genetic or functional criteria for CF diagnosis are met. It may include isolated obstructive azoospermia, chronic sinusitis or chronic pancreatitis and the diagnosis is mostly done at a later stage. In these patients, complete genetic sequencing and evaluation for duplication of genes or deletions are crucial, to confirm the absence of two variants that cause the disease.

PV349 / #1195

SWEET STIFF JOINT

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Case Description: 18-years old, long standing insulin dependent diabetic (type 1 diabetes mellitus) female, presented with

complaints of stiffness of fingers and burning sensations over both the soles with tight, waxy skin over the hands and foot with restriction of movements for a period of six months.

Clinical Hypothesis: The chronicity of the disease warrants a detailed evaluation. An extensive autoimmune panel work up was done and was unfruitful. The clinical picture and the findings were suggestive of limited joint mobility syndrome (LJMS)

Diagnostic Pathways: Limited joint mobility syndrome (LJMS) prevalence in type 1 Diabetes mellitus is 6%- 40%. Although there is no gold standard investigations and cure for LJMS, clinical diagnosis, optimal glycemic control, tobacco cessation and physical therapy help in diagnosing and in the management of the symptoms.

Conclusions and Discussion: This case emphasizes importance of consideration and early detection of musculoskeletal complications of type 1 diabetes mellitus along with micro and macro vascular complications. This case also highlights the importance of clinical examination and clinical signs in modern day medicine

PV350 / #1227

PLASMA CA 19-9 LEVEL AND METFORMIN RELATIONSHIP IN A PATIENT WITH TYPE 2 DIABETES MELLITUS; A CASE REPORT AND LITERATURE REVIEW

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Background and Aims: Carbohydrate antigen 19-9 (CA 19-9) is a tumor-associated antigen that plays an important role in the diagnosis and follow-up of both malign and nonmalign gastrointestinal diseases. Type 2 diabetes mellitus (DM) which is a chronic metabolic disorder caused by insulin sensitivity defect also been associated with an increased risk of multiple malignancies including non-Hodgkin lymphoma, breast, pancreatic and colorectal cancer. Metformin is considered as first-line treatment agent by guidelines in terms of cardiovascular protection, low risk of side effects among other oral antidiabetics. It was aimed to discuss the aspect of metformin treatment with CA 19-9 related diseases.

Methods: A 69-year old female patient without chronic disease history, presented with dry mouth to the internal medicine outpatient clinic. Her fasting blood glucose was 313 mg/dl and hbA1c was %10. CA 19-9 was measured to evaluate possible pancreatic pathology due to the patient's senility with low body mass index and found 512 kIU/L. Abdominal and thorax tomography, gastroscopy and further laboratory tests were insignificant. Metformin treatment was initiated due to the patient's diet-compatible history and refusal to multipl drug regimen.

Results: Three months later, CA 19-9 and hba1c levels were decreased to 123 kIU/L and 7.6% respectively. CA19-9 was measured 47kIU/L at the sixth month control. Other laboratory and clinical findings were within normal range.

Conclusions: The decrease in direct proportion to the improvement in DM clinic could be interpreted as a protective aspect of metformin for malignant and nonmalignant diseases associated with high CA19-9. Literature review showed three other studies suggesting similar outcomes.

PV351 / #1247

WE MUST SEE THE BIGGER PICTURE – A CASE OF PANHYPOPITUITARISM SECONDARY TO EMPTY SELLA TURCICA SYNDROME

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Case Description: The empty sella turcica is an imaging finding resulting from arachnoid herniation that leads to compression of the pituitary tissue. The majority of individuals do not have any associated symptoms and this finding is often discovered accidentally. Pituitary function is generally not compromised. We report the case of a 50-year-old woman referred to the Internal Medicine consultation for complaints of lumbalgia, which had mechanical characteristics and no alarming features. Nonetheless, complaints compatible with asthenia, chronic headaches and constipation were found. The physical examination revealed psychomotor slowness, eyelid oedema, and oedema of the lower limbs. Analytically, there was an increase in C.K, LDH and AST.

Clinical Hypothesis: The initial diagnostic hypothesis was hypothyroidism myopathy.

Diagnostic Pathways: Thyroid function was evaluated revealing a marked decrease in TSH and free T4. In the presence of a central hypothyroidism, a head CT was performed with findings compatible with sella turcica partially empty. The remaining pituitary function was evaluated with evidence of pan-hypopituitarism.

Conclusions and Discussion: This case is intended to alert to the need to make a good correlation of the anamnesis, objective examination and laboratory changes before a scenario of endocrinological dysfunction. Not infrequently, there is no frankly altered finding, and the diagnosis must focus on a careful association of all available data. In this case, it was also found that the patient had early menopause. This data together with complaints of chronic headaches, constipation and asthenia reinforce the need to associate the different findings instead of looking at them in a dissociated way. We must see the bigger picture!

PV352 / #1280

MALIGNANCY ASSOCIATED HYPERCALCEMIA IN A PATIENT WITH GRANULOMATOUS DISEASE: A DIAGNOSTIC CHALLENGE

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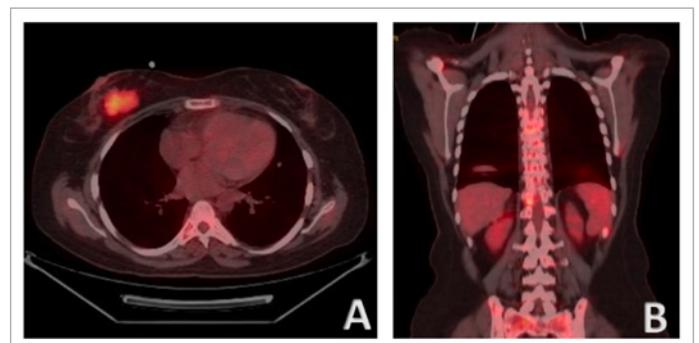
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Background and Aims: Granulomatous mastitis is an uncommon disease often mimicking infection or malignancy. Hypercalcemia during the course of the disease is even more challenging since hypercalcemia is not a typical feature of GM.

Methods: The serum level of calcitriol can differentiate malignancy-associated hypercalcemia from those associated with granulomatous disease.

Results: A 31-year-old young woman was presented with a mass and pain in both breasts in December 2016. Dense collections were seen in the right and left breast on ultrasonography. Biopsies were taken from the lesions and reported as granulomatous mastitis. Bilateral lesions were removed surgically, and methylprednisolone therapy was initiated, tapered down. During follow up, methotrexate treatment was added-on corticosteroids since dense collections in the left breast recurred in 2017. Lesions had been seemed to respond, and the last sonographic assessment revealed that the lesions were shrinking in 2019 (BI-RADS-2). In August 2020, the albumin-corrected calcium level was found to be elevated to 11.39 mg/dl (8.8-10.6 mg/dl). 25-hydroxy-vitamin-D and parathormone were noted as 19.4 ug/l, 6 pg/ml (12-88 pg/ml), respectively. Granulomatous disease-associated hypercalcemia was suspected at first. Serum calcitriol was found to be 5.20 pg/ml (18-78 pg/ml). Therefore, mammography was ordered to rule out malignancy. BI-RADS-5 lesion was seen in the right breast. A biopsy was performed and reported as invasive ductal carcinoma. Common bone metastases were detected in FDG-PET taken for staging.

Conclusions: During follow-up of granulomatous mastitis, each newly-developed lesion should be biopsied to exclude malignancy. In the case of hypercalcemia, calcitriol level might guide the physician to anticipate the underlying disorder.



#1280 Figure A: Increased FDG-uptake in the right breast (suvmax:6,1). B: Increased FDG-uptake in all axial and appendicular bones.

PV353 / #1295

PITUITARY APOPLEXY PRESENTING AS ISOLATED THIRD CRANIAL NERVE PALSY FOLLOWING TRANSCUTANEOUS AORTIC VALVE REPLACEMENT: A CASE REPORT

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Background and Aims: We report a case of a patient with third nerve palsy due to pituitary apoplexy. Pituitary apoplexy is a rare clinical syndrome caused by an acute ischemic infarction or hemorrhage frequently involving a pituitary adenoma. It is very uncommon for a pituitary apoplexy to present as a third nerve palsy. One of the commonest precipitating factors is a cardiac and orthopedic surgical procedure.

Case Presentation: A 78-year-old male presented with a two-day history of headache, weakness, drooping of the right upper eyelid and diplopia. He had undergone transcatheter aortic valve implantation two weeks ago and he was prescribed dual antiplatelet therapy. On neurological examination he had right upper lid ptosis, right diplopia, dilated right pupil and inferolateral deviation of the right eye. The remaining cranial nerves were intact, and there was no evidence of sensory or motor weakness. His CT Brain was normal. Investigation of his hyponatremia revealed central hypothyroidism and hypocortisolemia with ACTH below normal indicating hypopituitarism. FSH, LH, GH and prolactin were also below the normal value confirming panhypopituitarism. The MRI of the sellar region revealed a sellar mass compatible with a pituitary macroadenoma. The mass enhanced peripherally in the T1-sequence indicating hemorrhage.

Results: The patient was treated successfully with thyroxine and hydrocortisone replacement.

Conclusions: Pituitary apoplexy should be included in the differential diagnosis of an acute third nerve palsy. Patients undergoing TAVI are usually old and frail. Treating them with dual antiplatelet therapy should be carefully evaluated with randomized controlled trials in the future.

PV354 / #1326

EUTHYROID SICK SYNDROME MASKING GRAVES' DISEASE: A DIAGNOSTIC CHALLENGE

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Case Description: A 61-year-old female patient with diagnosed type 2 diabetes was admitted in the intermediate medical care unit three days after a major orthopedic surgery, with dyspnea, fever, agitation, severe tachypnea and sinus tachycardia. Initial

laboratory work revealed diabetic ketoacidosis and a slight increase of inflammatory markers, interpreted in the context of a severe sepsis. Combined therapy with intravenous fluids, insulin perfusion and broad-spectrum antibiotics was initiated. Subsequent blood tests revealed low free T3 and normal/low free T4 hormones with undetectable TSH.

Clinical Hypothesis: Given the severity of the acute systemic illness, thyroid hormone alterations were initially interpreted in the context of an Euthyroid Sick Syndrome (ESS).

Diagnostic Pathways: To further investigate this hypothesis, new serial hormone measurements were taken, revealing a progressive normalization of free T3 levels, concurrently to an overall improvement from the systemic disease. After the acute event remitted, free T3 levels reached normal range, but TSH remained undetectable, which pointed to a diagnosis of subclinical hyperthyroidism. Anti-TPO and TSH-receptor stimulating antibodies were both increased. Subsequent imaging exams, which included thyroid ultrasonography and scintigraphy disclosed a diffusely enlarged thyroid with increased radionuclide uptake, compatible with Graves' Disease.

Conclusions and Discussion: Altogether, we present a case of ESS masking the diagnosis of subclinical Graves' Disease with adrenergic stimulation-related symptoms. Diagnosis and management of subclinical Graves' Disease, such as the one presented herein, is of the utmost importance as it is associated with increased cardiovascular risk and mortality. Hence, following clinical improvement, the patient was discharged under thiamazole therapy, with no recurrence of symptoms.

PV355 / #1347

DIABETES INSIPIDUS CAUSED BY EMPAGLIFLOZIN: A CASE REPORT.

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Background and Aims: Sodium Glucose Co-Transporter-2 (SGLT2) inhibitors is a class of antidiabetic drugs, boasting a unique mechanism of action resulting in enhanced glycosuria, osmotic diuresis and natriuresis. However, there is evidence to suggest that a specific SGLT2 inhibitor, empagliflozin, can lead to negative regulation of sodium channels and aquaporin 2 (AQP-2) in diabetic kidneys along with elevation of serum copeptin, a stable surrogate of vasopressin, resulting in clinically significant polyuria.

Methods: We herein present the case of an 85-years old male patient who presented to the ER with severe fatigue. The patient reported a medical history of coronary artery disease and diabetes mellitus type 2 under treatment with empagliflozin. Physical examination revealed hypotension and laboratory tests came up

with elevated serum creatinine and sodium levels. The patient was admitted and was put under strict monitoring of fluid intake and urine output. Daily urine volume output, during hospice, was above 15 liters of hypotonic urine. Plasma osmolality and sodium remained elevated and there was no change in the average 24-hour urine sodium output. Imaging of the kidneys via ultrasound came up normal.

Results: Diabetes insipidus caused by empagliflozin was suspected and was further supported by the symptom's amelioration after it was removed from the patient's drug regimen. Gradual recovery followed immediately after with no residual disease on subsequent visits.

Conclusions: It is worth mentioning that there are no similar cases described in the PubMed database. The above-mentioned clinical case could be the first to describe diabetes insipidus as a rare side effect of empagliflozin.

PV356 / #1358

ATYPICAL PRESENTATION OF PHEOCHROMOCYTOMA

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Case Description: A 37-year-old pregnant woman (8 weeks of gestation) was admitted to the hospital due to first episode of blood pressure elevation up to 220 and 150 mmHg. There was no headache, sweating and hypertensive crisis before hospitalization. Blood pressure elevation was absolutely asymptomatic. But during last 3 months weight loss and visual disorders were noted. Malignant retinopathy was revealed. The pregnancy was terminated. Doxazosin, metoprolol and moxonidine were prescribed. After the treatment blood pressure was decreased up to 135 and 95 mmHg.

Clinical Hypothesis: Atypical presentation of pheochromocytoma (PCC) without crises that started with weight loss and visual disorders.

Diagnostic Pathways: CT with the intravenous contrast revealed the right adrenal gland tumor (60x73x74 mm in size) of non-homogenic structure. The hormonal activity of the tumor was confirmed by high level of norepinephrine. Cerebral MR-angiography demonstrated the fusiform aneurism of right internal carotid artery. Laparoscopic adrenalectomy was done. The adrenal gland had solid arrangement that composed of large polygonal cells. Normal blood pressure and body weight over the 2-year follow-up period.

Conclusions and Discussion: Atypical type of PCC that started with weight loss and visual disorders could be the cause of intracranial hemorrhage and visual loss. The knowledge of these rare symptoms is very important for diagnostics of PCC and good prognosis.

PV357 / #1371

ASSESSMENT OF NUTRITIONAL STATUS IN YOUNG WOMEN DIAGNOSED WITH ANOREXIA NERVOSA

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Background and Aims: Anorexia Nervosa (AN) alters the volume of body fluids, impairing the accuracy of the body composition analysis (ACC)

Methods: Analyzed 93 women with AN with a Body Mass Index (BMI) <18.5 Kg/m² in the Complejo Hospitalario de Navarra (1997-2004). Anthropometric data, density and body surface are registred

Results: The mean age was 20.31 (6.91) years and BMI 16.84 (1.92) kg. The mean bone mass (Kg) 7.85 (3.65); muscular 19.22 (2.71); fat 6.17 (1.66) and residual 11,99 (1.4) obtained by diameters, folds and corrected perimeters (muscle mass). The sample was divided into 2 groups (BMI ≤17 and >17,1) comparing each group (t student) obtaining significant differences (p<0.05) in muscle and fat mass. Body density (D) using Yuhasz 1.058 and Durnin 1.05 showing an increase compared to the mean in non-anorexics (1.04). The % of body fat using Siri 18.56 (4.05) and Brozek 18.39 (3.74) being the normal value 25,1% and 25,8% respectively. Significant differences (p0) were observed in all sections in the groups according to BMI. The concordance of the body surface by Du Bois and Mosteller (Bland Altman) showed a strong positive linear correlation coefficient (0.995) and also with BMI (0.64). Both formulas present an interclass correlation coefficient of 0.971.

Conclusions: The proper management and application of ACC among the population at risk depends in part on the early detection of serious disorders. In AN, an increase in body density (due to a low amount of adipose tissue) and a low % of body fat and muscle mass are observed. There is a strong correlation between BMI and body surface area in AN

PV358 / #1374

PREVALENCE OF OBESITY AND CHRONIC COMPLICATIONS IN NEWLY DIAGNOSED DIABETES PATIENTS

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Background and Aims: Prevalences of obesity and diabetes are increasing exponentially nowadays and obesity is usually associated with the appearance of diabetes. Chronic complications of diabetes can be present since diagnosis of the disease. The aim was to evaluate the prevalences of obesity and chronic

complications and their associations at diagnosis of diabetes.

Methods: Study group: 3,084 newly diagnosed patients with diabetes (2006-2011) in Galati county, Romania.

Age: 58.6±11.2 years, gender: 47,9% men, 52,1% women. We collected retrospective data regarding body mass index (BMI), abdominal circumference, weight categories: normal weight (NW), overweight (OW), obesity (OBE1, OBE2, OBE3), abdominal obesity categories: low risk waist (LRW), medium risk waist (MRW), high risk waist (HRW), presence of chronic complications and comorbidities: diabetic neuropathy (DN), diabetic retinopathy (DR), arteritis, chronic ischemic heart disease (CIHD), stroke, cancer, systolic and diastolic blood pressure (SBP, DBP), hepatic steatosis at diagnosis.

Results: Prevalence of chronic complications at diagnosis: DN (10.2%), DR (4.3%), arteritis (2.1%), CIHD (11.4%), stroke (5.7%); hepatic steatosis (16.7%), cancer (3%). Parameters: BMI (30.89±5.66 kg/m²), waist circumference (103.87±13.73 cm), SBP (143.55±23.42 mmHg), DBP (79.96±12.49 mmHg). Weight categories: underweight (UW-0.4%), normal weight (NW-9,4%), overweight (OW-34,5%), first degree obesity (OBE1-34.4%), second degree obesity (OBE2-14.9%), third degree obesity (OBE3-6.4%). Waist risk categories: low (LRW-9,7%), medium (MRW-15.0%), high (HRW-7.3%) DN was associated with normal weight, OBE3, OBE1 (p=0.006), LRW (p=0.030). DR was inversely related with weight and waist (p=0.015). Presence of arteritis was inversely correlated with weight (p<0.001), more frequent in OW, NW (p=0.008), was inversely correlated with waist (p=0.001) and was more frequent in LRW and MRW (p<0.001). CIHD was directly correlated with weight category (p=0.021), and directly correlated close to significance with waist (p=0.070). Stroke was inversely correlated with weight category (p=0.021), was more frequent in NW (p=0.007), and was not related with abdominal obesity (p=0.671). SPB and DBP were strongly directly correlated with weight and waist categories (p<0.001). Cancer was more frequent in NW, OW and OBE3 (p=0.072) and not related with abdominal obesity (p=0.402). Hepatic steatosis was directly correlated with obesity degree (p=0.001), but not related with abdominal obesity (p=0.515).

Conclusions: Microvascular and macrovascular complications were mostly related with normal weight and low risk waist at diabetes diagnosis. CIHD and blood pressure were directly related with degree of obesity and abdominal obesity.

PV359 / #1388

ENCEPHALOPATHY: A DIAGNOSTIC CHALLENGE

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Case Description: A 76 years-old male, with a past medical history of hypertension, type 2 diabetes, and dyslipidemia presented to the hospital with confusion and progressive loss of autonomy

with two weeks of evolution. He had a one-year history of liquid stools with 3kg weight-loss, which started after a trip to Cape Green. A Brain-CT revealed chronic leukoencephalopathy and brain-MRI revealed a pituitary macroadenoma. From blood work-up, only mild anemia was reported, blood cultures were negative. An electroencephalogram showed mild diffuse encephalopathy. Endoscopic study and biopsy were suggestive of mantle cell lymphoma.

Clinical Hypothesis: A paraneoplastic encephalopathy was assumed, and the patient was transferred to our hospital, medicated with antibiotic and prednisolone. On admission, he non-responsive, polypneic, tachycardic, hypotense, and presented rhonchi on pulmonary auscultation.

Diagnostic Pathways: After prednisolone suspension, which was gradually reduced over time, the patient presented again hypotension and low state of awareness. Multi-resistant *Staphylococcus aureus* was isolated in sputum. Blood work-up showed stable anemia, ammonia, vitamin B12 and TSH were normal. A second Brain-MRI showed haemorrhage of the reported macroadenoma, with pituitary apoplexy. Blood analysis revealed pan-hypopituitarism. The patient started levothyroxine, testosterone, and prednisolone, with remarkable recovery. The endoscopic study was repeated, excluding the suspicion of mantle cell lymphoma.

Conclusions and Discussion: Pituitary apoplexy is a rare condition that can be fatal without timely diagnosis and treatment. This patient was admitted with a very poor prognosis, however after the correct diagnosis and treatment, he presented an excellent recovery. Four years after hospital discharge, the patient is still fully independent.

PV360 / #1390

AN UNUSUAL CASE OF DIABETIC MYONECROSIS

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Case Description: We report a case of right calf diabetic myonecrosis in a 52 year old man who presented with a 9 day history of progressive atraumatic right foot pain. He had a background of poorly controlled type II diabetes mellitus (HbA1c of 11%) and was not taking any regular medications. Clinical examination revealed a temperature of 38.4°C and marked swelling and erythema of the right foot extending to just above the ankle. There was significant pain on plantar and dorsiflexion of the foot. Initial investigations showed a WCC of 17.4x10⁹/L, CRP 259.8 mg/L, CK 367 IU/L and 4 sets of blood cultures with no growth. CT imaging revealed changes consistent with cellulitis of the dorsum of the right foot an underlying collection was excluded with ultrasonography. Vancomycin, clindamycin and meropenem were commenced for suspected necrotising fasciitis and were replaced by piperacillin/tazobactam 4.5 g IV Q8H after 24 hours. Despite 5 days of antibiotic therapy he continued to have daily

fevers, severe pain and no improvement in inflammatory markers.

Clinical Hypothesis: Differential diagnoses included necrotising fasciitis and severe cellulitis complicated by an underlying abscess.

Diagnostic Pathway: MRI of the right lower limb and foot on day 5 showed extensive calf myositis, with non enhancing area within tibialis anterior, consistent with diabetic myonecrosis.

Conclusions and Discussion: Diabetic myonecrosis is a rare complication of diabetes mellitus, which should be considered in patients with poor glycaemic control who present with lower limb pain.

Horton W., Taylor JS., Ragland TJ., Subauste AR. Diabetic muscle infarction: a systematic review. *BMJ Open Diabetes Res Care.* 2015;3(1):e000082

PV361 / #1491

ELECTRICAL IMPEDANCE IN THE NUTRITIONAL ASSESSMENT OF WOMEN WITH ANOREXIA NERVOSA

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Background and Aims: Anorexia Nervosa (AN) alters the volume of body fluids making it difficult to analyze body composition (ACC). Electrical impedance (BIA) studies the resistance of the body to the passage of electrical current. The aim is study the concordance between BIA procedures in the AN ACC

Methods: We analyzed 93 women with AN in the Complejo Hospitalario of Navarra (1997-2004). We collect impedance data using different validated formulas for one variable: fat free mass (FFM); lean body mass (LBM); total body water (TBW) with frequencies of 50 and 100 kHz comparing them with each other with weighted results (logit estimation) after the Q test

Results: The mean age was 20,31 (6,91) years and BMI 16,84 (1,92) kg. We compare the means of the LBM variables, TBW and FFM obtained with different formulas at frequencies of 50 and 100 kHz, resulting statistically significant with $p < 0,002$; $p < 0,00004$; $p < 0,00007$ respectively. To looking concordances, we compared 5 formulas to calculate FFM (conventional, Valtueña, Durenberg; Gray and Deur-Schout) with each other at 50 and 100 kHz, objectifying a moderate interclass correlation coefficient (ICC) 0,645; 0,633 respectively. χ^2 and G-test were no statistically significant (p_0) for both frequencies. For LBM (Segal I,II) ICC was 0,12; 0,265 respectively. χ^2 and G-test were no statistically significant (p_0) for both. Finally 3 were compared for TBW (Lukaski, Deur-Schout, Kushner) with ICC 0,5; 0,419 respectively. χ^2 $p < 0,01$; 0,025 and G-test $p < 0,01$; 0,025 respectively.

Conclusions: There is a higher degree of agreement when comparing results of the same variable with different currents (50 vs 100kHz) than when comparing values of the same variable with identical frequencies but calculated by different procedures.

PV362 / #1504

EFFECT OF OBESITY ON KIDNEY FUNCTION IN PATIENTS WITH CHRONIC HEART FAILURE

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Background and Aims: Kidneys are a target organ for chronic heart failure (CHF) and obesity. The aim - to study the functional state of the kidneys in patients with CHF and obesity.

Methods: 116 patients with CHF I-III functional class (FC) 45-65 years old were divided into three comparable groups depending on body mass index (BMI). A physical examination was performed, evaluated the renal function, the level of leptin and adiponectin, the combined risk of progression of chronic kidney disease (CKD) and the development of cardiovascular complications were analyzed.

Results: Among patients with CHF and obesity, a significant decrease in glomerular filtration rate (GFR) compared to patients with normal BMI (61.3 [46.2; 67.1] vs. 73.2 [62.1; 86.3] ml/min/1.73 m²), a clinically significant decrease in GFR <60 ml/min/1.73 m² (CKD C3A-3b), a high (A2) and very high (A3) urinary albumin/creatinine ratio compared to patients with normal and overweight BMI. The leptin concentration significantly increased from the 1st to the 3rd group, while the adiponectin concentration decreased from the 1st to the 3rd group. Statistically significant correlations were established between the concentration of leptin and GFR, urine albumin, between the concentration of adiponectin and GFR, urine albumin.

Conclusions: A significant deterioration in the functional parameters of the kidneys in patients with CHF with increasing body weight, as well as an increase in the combined risk of CKD progression and the development of cardiovascular complications with comparable FC, was established.

PV363 / #1505

INSULIN RESISTANCE AND FUNCTIONAL STATE OF THE KIDNEYS IN PATIENTS WITH CHRONIC HEART FAILURE AND OBESITY

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Background and Aims: To evaluate the effect of insulin resistance on the functional state of the kidneys in patients with chronic heart failure (CHF) in combination with obesity.

Methods: The study included 120 patients with CHF I-III functional

class (FC) and stages 1-3B chronic kidney disease (CKD) aged 45-65 years: group 1 (n=37) – CHF patients only, group 2 (n=43) – patients with CHF and overweight, group 3 (n=40) – patients with CHF and obesity. The groups were comparable in main clinical and demographic parameters. We conducted a clinical examination, evaluated the functional state of the kidneys, the level of insulin and indicators of insulin resistance (HOMA-IR, metabolic index).

Results: Glomerular filtration rate (GFR) was significantly lower in the group with CHF and obesity compared to patients with CHF only (61.3 [46.2; 67.1] vs 73.2 [62.1; 86.3] ml/min/1.73m², respectively). The percentage of patients with CKD C3a-b was significantly lower in groups 2 and 3 compared to group 1. An increase in BMI in patients with CHF was accompanied by an increase in the insulin resistance index and metabolic index. Significant correlations were established between the level of visceral fat in the body and HOMA-IR, the metabolic index in patients with CHF and obesity, overweight. Significant associations were found among patients with overweight and obesity between the severity of albuminuria, GFR and HOMA-IR, metabolic index.

Conclusions: The results of the study demonstrate a significant pathogenetic contribution of insulin resistance to the development and progression of renal dysfunction in patients with heart failure and obesity.

PV364 / #1524

DYSLIPIDEMIA SECONDARY TO ADVANCED MALIGNANCY

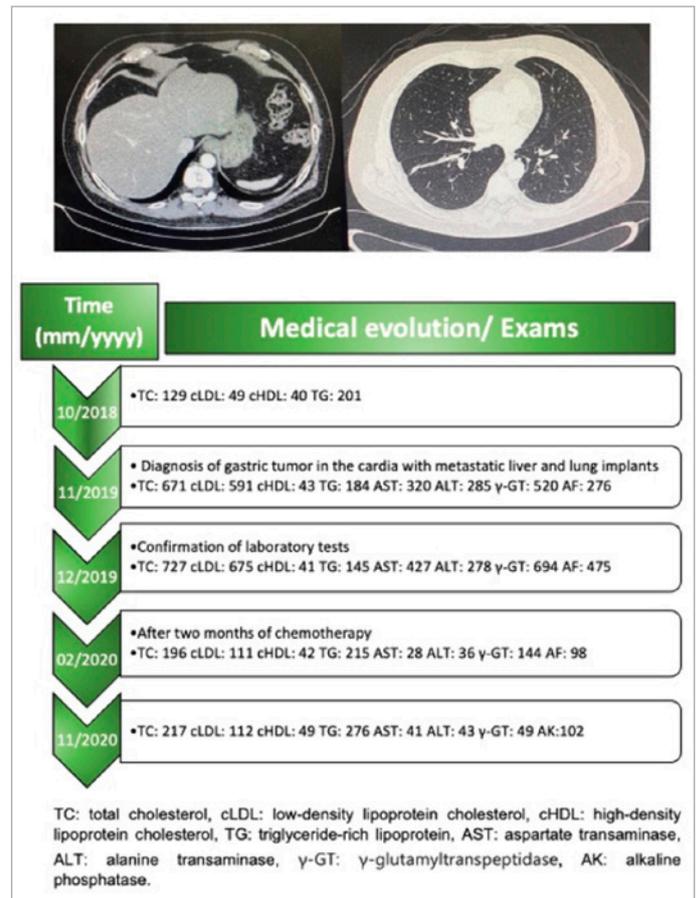
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Case Description: A 72-year-old man without dyslipidemia, was diagnosed with gastric tumor in the cardia. Laboratory showed an increase in hepatics enzymes and cholesterol, in addition to tomography with metastatic liver and lung implants (Figure #1524). Hypolipidemic not initiate because of the advanced stage of neoplasia associated with changes in liver function. Biopsy with immunohistochemistry showed adenocarcinoma gastric with signet ring cells, stage IV. A palliative chemotherapy with capecitabine started, followed by the addition of oxaliplatin. As lung and liver disease progressed, the protocol was changed to the 2nd line with irinotecan. After the first chemotherapy sessions, decrease levels of LDL and hepatics enzymes was observed, in addition to a decrease in tumor lesions. The patient is followed up with oncology treatment.

Clinical Hypothesis: Malignant neoplasm causing hyperlipidemia.

Diagnostic Pathways: Laboratory tests with lipid profile and upper gastrointestinal endoscopy with biopsy associated with immunohistochemistry and tomography with contrast of chest, abdomen and pelvis for staging.



#1524 Figure: Tomography of the liver and lung. Below, order of medical evolution and laboratory tests

Conclusion and Discussion: An increase in LDL was observed concomitantly with the diagnosis of metastatic cancer. Even without a hypolipidemic, after starting chemotherapy, there were reductions in cholesterol levels and tumor size, suggesting neoplasia as the primary cause of dyslipidemia. Among the main metabolic changes induced by neoplasms, lipid metabolism change stands out. The mechanisms involved are increased lipolysis, consumption of lipid deposits and reduced lipogenesis. These changes are related to the inhibition of plasma lipoprotein lipase activity and increased hormone-sensitive lipase, being mediated by cytokines as a tumor necrosis factor alpha and an interleukin.

PV365 / #1573

TRANSIENT CENTRAL DIABETES INSIPIDUS ASSOCIATED WITH SEPSIS

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Case Description: A 60 years old woman, with a background of hypopituitarism following a transsphenoidal hypophysectomy in

the context of a pituitary tumour 13 years earlier, was admitted with septic shock secondary to gastroenteritis, causing renal and cardiovascular dysfunction. Hemodynamic stabilization was achieved in the intensive care unit. Two days later, after being transferred to the internal medicine ward, the patient started complaints of polyuria (diuresis > 8 liters per 24 hours) and polydipsia. Laboratory studies showed mild hyponatremia and hypokalaemia.

Clinical Hypothesis: The possibility of polyuria in the setting of acute tubular necrosis was considered but unlikely due to quick recovery from shock status. Taking into account the clinical background, a central diabetes insipidus state had to be studied.

Diagnostic Pathways: 24 hour urine was evaluated, with a Fractional sodium excretion > 1%, BUN/Cr ratio > 10(11) and urine sodium > 30 mEq/L (59), matching both hypothesis. However, an urine osmolality of 149 mOsm/Kg and a normal urine sediment were in favour of diabetes insipidus. After a therapeutic test with desmopressin the patient normalized the urinary output, plasma sodium and urine osmolality.

Conclusions and Discussion: This patient needed treatment with desmopressin only during the following month, recovering from a transient central diabetes and maintaining a normal urinary output afterwards. A possible explanation for this condition is the role of apelin, a neuropeptide that reach high levels during sepsis states and is responsible for counter regulate the action of vasopressin. More data and studies are necessary to confirm this hypothesis.

PV366 / #1608

ADRENOCORTICAL CARCINOMA: A CHALLENGING DIAGNOSIS

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Case Description: The adrenocortical carcinoma (ACC) is a rare malignancy with an aggressive pattern and poor prognosis, often metastatic at the time of diagnosis. ACC may present with autonomous adrenal hormone excess or with symptoms caused by an abdominal mass. Classical malignancy-associated symptoms are rarely present. Occasionally due to its fast progression clinical signs can be masked. The authors describe a rare case of a 62-year-old women who presented dorso-lumbar pain. Computed tomography (CT) scan revealed osteolytic lesions in her dorsal spine and sacrum suggesting metastatic disease. She was admitted to further study.

Clinical Hypothesis: She was submitted to bone biopsy that initially suggested Multiple Myeloma. However clinical development revealed not consistent with the initial diagnosis due to late appearance of hypercortisolism and refractory hypokalemia. A histological revision was made implying the differential diagnosis between ACC, Melanoma and PEComa.

Diagnostic Pathways: Our patient underwent careful clinical

assessment, hormonal work-up and imaging, but it was the adrenal biopsy that confirmed ACC.

Conclusion and Discussion: With this case report, we want to emphasize that the diagnosis of ACC is not always obvious. Although bone metastases are infrequent, the presence of metastases is by far the strongest indicator of poor prognosis. All patients with suspected or proven ACC benefits from a multidisciplinary monitoring preferably at a specialized center.

PV367 / #1633

NON INFECTIOUS FEVER

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Case Description: The authors present the case of a 88-years old woman admitted to the emergency department with high fever and right hypocondrial pain that began 2 days before. She had history of hypothyroidism on thyroid hormone replacement therapy. Blood tests revealed leukocytosis and neutrophilia, as well as high PCR. Abdominal ultrasound showed biliary ectasia and lithiasis. She was started on antibiotics for suspected cholangitis, showing little or no clinical improvement. A whole body CT scan was performed which simply revealed diffuse multinodular goiter. Blood cultures showed no bacterial or fungal colonies. A thyroid ultrasound showed an enlarged thyroid gland with multiple bilateral nodules. MRCP confirmed ectasia in the main bile duct and a gallstone in the terminal portion of the duct. The thyroid hormone dosing was high with an undetectable TSH value.

Clinical Hypothesis: The authors searched for a cause for this unexpected hyperthyroidism. The main hypothesis were excess thyroid hormone supplementation, iodine overload, as well as hot thyroid nodules.

Diagnostic Pathways: The patient was started on propylthiouracil. After two days the fever began to decrease and eventually disappeared. Thyroid scintigram showed an increased glandular volume, multiple cold nodules and two small hot nodules. Both the patient and her family have denied thyroid surgery, despite several meetings and explanations. Therefore, she was kept on antithyroid medication and discharged after stabilization.

Conclusion and Discussion: The authors intend to emphasize the relevance of thyroid hormone disturbances as differential diagnosis to many emergency situations, as tachycardia, fever, visceral pain, weight changes and other systemic unbalances.

PV368 / #1718

A POTENTIALLY MANAGEABLE CAUSE OF DEMENTIA

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Case Description: We describe a case of a previously independent 84-year-old man presented to the Emergency Room with a progressive cognitive impairment and worsening of functional status for 2 months. He had multiple admissions for the same motive being diagnosed with new onset dementia. Past medical history included severe peripheral arterial disease and hypertension. Due to low blood pressure (BP) he recently stopped antihypertensive medication. On admission he was lethargic, disoriented, uncooperative, dehydrated and BP was 81/75mmHg; remaining physical exam was unremarkable. Laboratory findings included acute renal failure (creatinine 2.5mg/dL and urea 99 mg/dL), hyponatremia (130 mmol/L) and normal glycemia.

Clinical Hypothesis: He was admitted for further investigation, including study of treatable dementias. We highlight: morning cortisol 1.8 ug/mL (6.2-19.4 ug/mL), corticotrop in <5pg/mL (0-46 pg/mL), head CT scan with ischemic leukoencephalopathy but without signs of an acute event. No other abnormalities were found. Diagnosis of central adrenal insufficiency (AI) was made.

Diagnostic Pathways: He started hydrocortisone with rapidly improvement. No other hormones deficiencies were found. Head MRI showed no abnormalities and there was no history of trauma. Final diagnosis was made: Isolated Corticotropin Deficiency. Upon discharge he was oriented and collaborative and able to walk on his own. He maintains follow-up with low dose hydrocortisone and is doing well.

Conclusion and Discussion: Cognitive impairment is common in elderly people, being responsible for a decrease in quality of life of patients and caregivers. AI is uncommon, and symptoms are often unspecific, requiring high level of suspicion. Relation between cognition and low levels of corticosteroids have not been well studied.



AS07. GASTROINTESTINAL AND LIVER DISEASES

PV369 / #36

UPPER GASTROINTESTINAL BLEEDING IN THE ELDERLY – A PORTUGUESE TERTIARY CENTER EXPERIENCE

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Background and Aims: Non-variceal upper gastrointestinal bleeding (NVUGIB) is a common global condition with higher mortality and morbidity in old-aged adults. Across the last decades there was a reduction in incidence and mortality of NVUGIB and most deaths have been related to pre-existing medical conditions. The aim of this study is to characterize the elderly population admitted for NVUGIB, to evaluate bleeding causes and clinical prognosis factors.

Methods: Retrospective study of patients aged ≥ 75 years admitted for NVUGIB between January/2016 and January/2019 in a Portuguese tertiary hospital.

Results: We included 223 patients, 60.5% men, aged from 75-101 years, with a mean age of 83.26 ± 5.03 years. Congestive heart failure was the most frequent comorbidity (38.6%); followed for Diabetes mellitus (26.9%) and ischemic heart disease (19.3%). Mean Charlson-Comorbidity-Index score was 6.42 ± 2.72 , and a score ≥ 6 was found in 25.5%. Current medication at admission included NSAIDs, antiplatelet, anticoagulant, oral corticosteroids and/or SSRIs drugs in 65% and PPIs 18.4%. Peptic-ulcer was the primary cause of bleeding (39%), gastric ulcer was the most prevalent (22%). *Helicobacter pylori* infection was confirmed in 11.2%. The next most common diagnose was malignancy ($n=32$, 14.3%). The mean length of hospital-stay was 9.08 days. Intermediate/intensive-care-unit admission was decided in 30.5%. In-hospital rebleeding occurred in 4.9%. In-hospital mortality was 2.7%.

Conclusions: The management of NVUGIB in the elderly is challenging due to atypical presentation, frailty, multi-morbidity and polypharmacy. However, the outcomes found in the current analysis were similar from other studies in general population.

PV370 / #60

DELAFOY ULCER AND ACQUIRED VON WILLEBRAND DISEASE: AN UNUSUAL COUPLE

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Background and Aims: Dieulafoy's lesion is tortuous, submucosal vessel that erodes the overlying epithelium without primary ulceration or erosion. Predominantly occurs in the proximal stomach but it is also reported in extragastric sites. Von Willebrand disease is a primary genetic defect resulting in vWF dysfunction which may be mild or result in a significant bleeding diathesis. Acquired von Willebrand syndrome (AVWS), prevalent disease, is a secondary structural or functional defect in vWF associated with a number of clinical conditions including autoimmune diseases and malignancies.

Methods: 88-year-old patient reaches hospitalization for melena with anemia. History of inflammatory bowel disease, right hemicolectomy for the finding of endoscopically non-removable adenoma. In therapy with LWM heparin for atrial fibrillation. Esophagogastroduodenoscopy was performed: Dieulafoy lesion of the gastric fundus, actively bleeding, mechanical hemostasis performed without success. Bedside examination numerous petechiae and right shoulder haematoma. At laboratory aPTT prolonged, INR in range: Anticoagulant lupus like negative, deficit Factor VIII (13.7%), Von Willebrand factor: GPI binding 7.9 activity% (normal value 51-175), antigen 7.1% (normal value 63-166%), no inhibitor.

Results: Hematae was started with no benefit: new rectoragic episodes. High dose Immunoglobulins were started for two days: no new bleedings. At new clinical check after six months no prolongation of aPTT and hemoglobin value in range.

Conclusions: Although the association of Von willebrand disease and angiodysplasiasit is well known, it turns out to us this is the third case of Dieulafoy ulcer and Von Willebrand disease in the literature. The pathophysiology is not yet clear. Our patient suspended anticoagulant therapies for months: our case underlines the importance of monitoring these parameters even in the NOAC and LMWH era. Furthermore, even if the literature is conflicting, immunoglobulins have proved effective in treating our patient.

PV371 / #100

EVALUATION OF HEPATIC FIBROSIS (HF) IN PATIENTS WITH RHEUMATOID ARTHRITIS (RA) TREATED WITH METHOTREXATE (MTX). USING FIBROSCAN AND BIOMARKERS IN DAILY CLINICAL PRACTICE

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Background and Aims: MTX is essential on RA treatment. HF is one of its adverse effects and the diagnostic GS is biopsy. Other tests are APRI (AST to Platelet Ratio Index) and elastography, validated in hepatopathy but not in RA.

Our aim is to evaluate HF in patients treated with MTX (by elastography or APRI) and its relationship with accumulated dose (AD), hypertransaminasemia and metabolic syndrome (MS).

Methods: Prospective study, 34 patients since February 2019 to January 2020. Included: >18 years-old, RA treated with MTX. Excluded: hepatopathy, enolism, DM1, renal/heart failure, obesity, leflunomide. Variables: sex, age, body mass index (BMI), MS, duration of disease (years) and MTX treatment (months), AD (mg), disease activity (DAS28), blood cells count, glucose, urea, ions, creatinine, ALT, AST, ALP, GGT, ESR, CRP, coagulation, CCP antibody, rheumatoid factor, APRI (>0.7 significant HF), elastography by FibroScan (>7kPa).

Results: 50 patients (38 women), mean age of 61.8 (SD 11.7). Average duration of disease: 13.7 (SD 8.2), and MTX treatment: 85.8 (SD 93.3), with AD of 5414.6 (SD 5011), 21 (42%) >4000. Mean DAS28: 2.39 (SD 1.1). FibroScan mean value 4.8 (SD 2), 4.71 (SD 1.74) when AD >4000. The relationship between FibroScan or APRI and AD was not significant ($p=0.637$, $p=0.806$). AST and ALT were elevated for 6 and 9 patients; with significant relationship between AST and FibroScan ($p=0.021$) and APRI ($p=0.045$), not with ALT. Four patients (8%) had MS, no significant association with FibroScan.

Conclusions: FibroScan and APRI are related to HF on patients receiving MTX for RA. AST could be too.

PV372 / #137

PATIENT PERSPECTIVE OF ACUTE HEPATIC PORPHYRIA WITH SPORADIC ATTACKS: A CONCEPT ELICITATION STUDY

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Background and Aims: Acute hepatic porphyria (AHP) is a family of rare, metabolic diseases characterized by potentially life-threatening acute attacks and, in some patients, chronic debilitating symptoms. While patients are known to have reduced health-related quality of life (HRQoL) as most aspects of daily-living are impacted, limited data exist in patients with sporadic attacks. This research aims to (1) identify porphyria-related symptoms between attacks, (2) characterize the frequency, severity, and bothersomeness of these symptoms, and (3) understand the burden of disease in patients who experience attacks sporadically.

Methods: AHP patients with sporadic attacks (defined as ≥ 1 attack in prior 2 years but < 3 attacks in each of the prior 2 years) were recruited to participate in qualitative telephone interviews, conducted using a semi-structured guide. Interviews were recorded, transcribed, anonymized, and coded. Inductive coding targeted textual data related to chronic symptoms of AHP, symptom characteristics (i.e., frequency and severity), degree of bothersomeness of these symptoms, and the impact of disease.

Results: All patients interviewed ($n=9$) were female, aged 26-67, and reported experiencing 1-2 attacks per year. All patients reported chronic symptoms in between attacks. Most frequent (>50%) were fatigue/tiredness, heartburn, arm/leg pain, anxiety, and back pain; fatigue/tiredness was rated as both the most severe and most bothersome symptom. Symptoms commonly occurred daily or weekly, and negatively impacted HRQoL (e.g. limited ability to work, difficulty with daily task completion, anxiousness, feeling depressed/sad, and social isolation).

Conclusions: All AHP patients in this study experienced marked chronic symptoms in between attacks and detrimental impacts to their HRQoL.

PV373 / #147

DISEASE BURDEN AND HEALTHCARE UTILIZATION OF ACUTE INTERMITTENT PORPHYRIA PATIENTS WITH LONG-TERM COMPLICATIONS ASSOCIATED WITH PORPHYRIA: ANALYSES FROM A NATIONAL HEALTHCARE DATABASE

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Background and Aims: Acute hepatic porphyria (AHP) refers to a family of rare, metabolic diseases that includes four types, acute intermittent porphyria (AIP) being the most common. AHP is characterized by potentially life-threatening acute attacks and, for some patients, chronic debilitating symptoms and long-term complications (e.g.; chronic kidney disease, liver disease, and chronic neuropathy). This study aimed to estimate healthcare resource utilization of AIP patients with long-term complications associated with AIP, using a nationally representative health care database from the United States.

Methods: This retrospective analysis utilized the IBM® MarketScan® Commercial Claims and Medicare Supplemental Databases. Patients with at least one claim for AIP (ICD-10 diagnosis code E80.21) between October 1, 2015 – June 30, 2018 were selected for analyses. The subset of AIP patients with continuous enrollment for at least one year following their first observed AIP diagnosis (index date) were identified for the assessment of baseline characteristics and post-diagnosis (post-index) outcomes. Means were reported as per patient per year (PPPY).

Results: 99/225 AIP patients were identified with at least one chronic debilitating symptom: chronic neuropathy (n=56), hepatic conditions (n=46), or renal conditions (n=31). Mean observation time of identified patients were 2.0 years. Patients had a mean (SD) of 2.8 (3.4) attacks PPPY; 29.3% had ≥3 attacks/year. The majority had ≥1 hospitalization (57.6%) or emergency department (ED) visit (71.7%).

Conclusions: Results from this national representative healthcare claims database demonstrated high disease burden and healthcare utilization in AIP patients with long-term complications associated with porphyria.

PV374 / #161

STUDY OF THE EFFECT OF VIRAL ERADICATION WITH DIRECT ACTING ANTI VIRAL AGENTS 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 eradication in patients with abnormal serum iron studies has been published (27 subjects), all having one or more abnormal iron test before the treatment, with normal iron status restoration. The aim of the work was to study the effect of viral eradication with DAAs in patients with chronic hepatitis C and HF.

Methods: Retrospective study. From 590 patients treated with DAAs for HCV (1/2018-3/2020), 74 presented HF (12,54%), and 66 were included in the study. Pre and post-treatment serum ferritin values were determined in all included patients. Inclusion criteria: pre treatment HF (>400); chronic HCV hepatitis treated with DAA; SVR. Exclusion criteria: No pretreatment HF; no SVR; lost patients.

Results: From 66 patients, 14 women, 52 men (78.79%). Mean age: 58, 48, SD 8.55; Mean ferritin pre treatment: 929 (SD 1092.58); post: 264.89 (SD 165.26); Mean Tsat: 40.59 (SD 15.84); Tsat post: 37.24 (SD 53.92); Mean Fe pre: 153.06 (SD 63.46), post: 109.55 (SD 39.86). When we compared pre and post treatment iron parameters, significant statistical differences were present with ferritin (p: 0,0000) and iron (0.0001) determinations. Transferrin saturation values (p=0.7690) did not present statistical significance.

Conclusions: SVR after DAAs for chronic hepatitis C induces a statistical significant reduction in serum ferritin and iron levels.

PV375 / #179

THE INDICATION FOR PROTON PUMP INHIBITOR (PPI) USE IN AMBULATORY CARE POPULATION

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Background and Aims: Proton pump inhibitors are one of the most commonly prescribed drugs in the UK. There is evidence to suggest that PPIs are often overused with 25-70% of prescriptions have no appropriate indication. Recent evidence

suggests that long term use of PPIs could potentially cause many adverse effects. The aim of the Quality improvement project was to analyse the indications of PPI use in the community and to improve the awareness of their side effects among doctors.

Methods: We reviewed the PPI use of the patients who attended the ambulatory care service for various conditions. We reviewed the electronic clinical data to see if they ever had an Endoscopy and if there was concomitant use of NSAIDs or high dose steroids.

Results: 50 random patients who received PPI treatment were included in our study. Only 14 patients had a clear indication for PPI therapy. The rest of them were presumed to be on PPI for un-investigated Dyspepsia. In our experience patients often don't remember the indication or duration of treatment.

Conclusions: Dyspepsia is a non-specific terminology describing any of the upper abdominal symptoms not necessarily linked to acid production. It's emerging from the recent research that long term PPI use has many adverse effects. PPIs reportedly have been associated with Community-acquired pneumonia, chronic kidney disease, micronutrient deficiency, C diff infection, Small intestinal bacterial overgrowth, Dementia and Osteoporosis and possibly certain cancers and immune-related diseases by disrupting normal gut microbiota. Therefore, we strongly recommend avoiding routine PPI use for no un-clear indications.

PV376a / #414

OCTREOTIDE IN COLONIC PSEUDO-OBSTRUCTION IN PARKINSON'S DISEASE

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Background and Aims: Lower gastrointestinal symptoms are common in Parkinson's disease (PD), consequence of the disease itself or its' treatment. Although these features are usually disabling, literature remains scarce regarding their treatment. We present a case of colonic pseudo-obstruction (CPO) complicating PD, which was successfully treated with octreotide.

Methods: Information for this report was gathered in clinical practice.

Results: 77-year-old man with PD (currently under levodopa/carbidopa 250/25 mg thrice daily and rivastigmine 4.5mg daily), diabetes and arterial hypertension. He presented with a 3-day history of dysuria, pollakiuria, vomits and abdominal distention and pain. Lab tests showed leucocytosis ($19.1 \times 10^9/L$), C-reactive protein 7.5 mg/dL, creatinine 2.3 mg/dL and pathological urinalysis. Abdominal CT scan showed bilateral uretero-hydronephrosis and small bowel and colon marked dilatation, without obstruction. He began cefuroxime, domperidone and laxatives (lactulose, sodium picosulfate sodium and bisacodyl). Inflammation markers got better, but the abdominal distention worsened and he remained without defecating. 5 days later he began vomiting once again and he became stuporous. Inflammatory markers and renal function also worsened. CPO and sepsis due to bacterial translocation were

considered highly probable and metronidazole and octreotide 100 mcg twice daily were begun. This was followed by a remarkable improvement, which included normalization of bowel function.

Conclusions: In the presented case, constipation was probably due to levodopa/carbidopa and was unresponsive to conventional laxatives, culminating in CPO. Octreotide can be useful in CPO, but its use in PD is not documented. We suggest it may have a role in the treatment of PD's refractory constipation and CPO.

P377a / #1717

ADULT-ONSET CELIAC DISEASE PRESENTING AS CELIAC CRISIS WITH COAGULOPATHY

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Background and Aims: Celiac disease is an autoimmune disorder occurring in genetically predisposed individuals who develop an immune reaction to gluten. Clinical manifestations are broad, but symptoms of malabsorption are classic.

Methods: A 43-year-old male presented to the emergency department with a 2-week history of persistent large volume aqueous diarrhea. The patient reported a 6-month history of intermittent diarrhea and unquantified weight loss. Physical examination was remarkable for signs of dehydration. Laboratory evaluation showed microcytosis (MCV 65.2 fL) and hypochromia (MCH 22.8 pg), hypokalemia (3 mmol/L), metabolic acidosis (pH 7.14), creatinine elevation (1.41 mg/dL), hypoalbuminemia (3.2 g/dL) and coagulopathy (International Normalized Ratio 3.69). Intravenous hydration was initiated, Vitamin K administered and a thorough analytic and endoscopic study requested.

Results: IgA antitissue transglutaminase antibody was positive and upper endoscopy demonstrated duodenal mucosal villous atrophy and mosaic appearance. Biopsies were performed and showed villous atrophy and increase in intraepithelial lymphocytes, which confirmed the diagnosis of celiac disease. A gluten-free diet was initiated with improvement of diarrhea and normalization of laboratory abnormalities.

Conclusions: Celiac crisis, defined by Jama S. et al. as the presence of acute gastrointestinal symptoms attributable to celiac disease requiring hospitalization and/or parenteral nutrition plus at least two of the following: signs of severe dehydration, renal dysfunction, metabolic acidosis, hypoproteinemia, abnormal electrolyte levels and weight loss >4.5 kg, albeit rare, can be the presenting form of celiac disease in the adult. Even rarer is the combination of celiac crisis with coagulopathy, because in most cases the diagnosis is made before a severe vitamin K deficiency develops.

PV378 / #228

ACETAMINOPHEN RELATED IDIOSYNCRATIC ACUTE LIVER FAILURE AND LIVER TRANSPLANTATION IN YOUNG PATIENT BEARING BOTH NULL GSTM1 AND UGT2B17 ACTIVITY

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Case Description: A 17-years old male patient presented to emergency department for nausea and jaundice. He had had fever three days before admission; he had taken acetaminophen 500 mg. He had no past medical history. He had no alcohol or drug intake. Blood tests showed signs of acute liver damage (AST 1646 UI/L, ALT 797 UI/L) and liver failure (Total bilirubin 12.0 mg/dl, INR 3.72). Ultrasound examination observed no signs of biliary obstruction.

Clinical Hypothesis: All known virologic, metabolic, vascular and immunologic causes of acute liver failure was excluded. Transjugular liver biopsy was performed; liver histology showed acute hepatitis with necro-inflammatory pattern.

Diagnostic Pathways: Blood tests worsened with bilirubin raised at 20 mg/dl, creatinine 2,1 mg/dl, INR 5.97 and patient had poor level of consciousness up to Glasgow coma scale 8. The patient underwent liver transplantation according to King's College criteria. Now he is in healthy condition on Tacrolimus therapy 1 year later. An idiosyncratic Acetaminophen-induced acute liver injury was suspected. We performed an Integrated Drug Metabolism Analysis and identified specific polymorphisms affecting enzymatic activity level: CYP1A2*1F ↑activity; CYP3A4*1B ↑activity; CYP3A5*1/*3 ↑activity; UGT1A1*28 ↓activity; UGT2B17del null activity; GSTM1del null activity. APAP accumulates due to lower glucuronidation and excretion, it is converted through increased CYPs activity in toxic metabolites that are eliminated slower due to reduced GST activity.

Conclusion and Discussion: This defected metabolism, despite the low dose of APAP taken, may have led to acute hepatocyte toxicity. This case highlights the importance of characterizing the individual ability to metabolize drugs to avoid ALF episodes and consequently save organs for transplantation.

PV379 / #273

PRIMARY BILIARY CHOLANGITIS: ABOUT A CLINICAL CASE

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Case Description: A 58-year-old woman, with a history of hypothyroidism was referred to hospital Internal Medicine for presenting persistently high serum gamma-glutamyl transpeptidase (GGT) and alkaline phosphatase (AP) values in routine analytical studies. The patient was sometimes referred episodes of pain in the hypochondrium. On physical examination, anicteric, no organomegaly, hyperpigmentation, dryness or xanthelasma. Denied pruritus or changes in the urine colour. The study showed positive anti-mitochondrial antibody (AMA) and elevated AP and GGT without liver cytolysis, normal serum iron, and copper kinetics. A liver biopsy pathological anatomy revealed mild portal fibrosis and lobular hepatitis, being suggestive of primary biliary cholangitis at an early stage. Treatment with ursodeoxycholic acid was started, remaining asymptomatic.

Clinical Hypothesis: Some of the hepatic and extrahepatic causes are Hepatitis, Granulomatous liver disease, Autoimmune Cholangitis, infiltrative, primary biliary cholangitis, among others.

Diagnostic Pathways: Investigation should include complete blood count with differential, liver enzymes and synthetic function, viral serologies, autoantibodies and immunoglobulin levels, visualization of the biliary tree and evaluation of liver histology.

Conclusion and Discussion: Primary bile cholangitis, being at an early asymptomatic stage can be a diagnostic challenge. The case of a woman whose analytical changes, which could, at first sight, go unnoticed, culminated in the investigation and diagnosis of primary bile cholangitis still in an asymptomatic phase. The elevation of cholestasis markers corresponded to analytical findings found in routine analytical studies which, after being properly directed, culminated in the early diagnosis of this pathology, even though it has always remained without manifestation of symptoms.

PV380 / #291

BLACK ESOPHAGUS: AN ATYPICAL PRESENTATION

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Background and Aims: Acute esophageal necrosis (AEN), or black esophagus, is a rare entity, endoscopically characterized by a circumferential black mucosal discoloration of distal esophagus. It has a multifactorial etiology, including esophageal ischemia, backflow injury from gastric contents and impaired reparative mechanisms. Our aim is to report an atypical presentation of AEN in the context of AKI.

Methods: A 58-year-old man was admitted to the hospital after being found lying on the floor. He had a history of arterial hypertension and degenerative osteoarticular disease, with regular use of NSAIDs. The initial investigation revealed rhabdomyolysis (CK 181560 U/L) and AKI with creatinine 5,0 mg/dL and urgent need for hemodialysis. On day 3 of inpatient

admission, he complained of dysphagia and underwent a esophagogastroduodenoscopy (EGD), which showed esophageal necrosis involving the two distal thirds of the esophagus.

Results: He was started on PPI and nil per os diet, with clinical improvement. One week later he presented with upper gastrointestinal bleeding (UGB). An emergent EGD revealed AEN in recovery. He was discharged home after AKI resolution and remains well at 3-month follow-up.

Conclusions: Whilst UGB is the most common presentation of AEN, some patients may present with other symptoms, such as dysphagia. It is a serious and potentially life-threatening condition, with an often dramatic presentation. Most cases resolve with conservative management and treatment of the underlying conditions. With this case report we intend to increase awareness of this disorder, since a high index of suspicion is key to the diagnosis, particularly in older patients with multiple comorbidities.

PV381 / #296

ABDOMINAL TUBERCULOSIS IN SOUTHERN TUNISIA: WHAT IS SPECIFIC WITH?

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Background and Aims: Abdominal tuberculosis (ABT), known for a great mimicker, remains a diagnostic challenge. Clinical and radiological manifestations are non-specific. In our country, recent ABT data are scarce. In this perspective, we aimed to study the epidemiological, clinical and evolutionary features of ABT.

Methods: We conducted a retrospective study including all patients with ATB in South of Tunisia between 1997 and 2018.

Results: Totally, we enrolled 182 patients, among whom 113 were females (62.1%). The mean age was 39±19 years. Patients aged between 15 and 39 years were the most affected age group (47.3%). According to residency, 103 patients came from urban area (56.6%). Peritoneal tuberculosis (TB) was the most common site (67.5%), followed by intestinal TB (14.2%) and abdominal lymph node TB (11.5%). Multifocal TB was noted in 20 cases (11%). Ten cases (5.5%) of pleural TB were associated with ABT. Both pulmonary and cervical lymph node TB were associated with ABT in 3 cases (1.6%). Anti-tubercular therapy was based on fixed drug combination in 38 cases (27.1%). The mean duration of treatment was 10±4 months. The disease evolution was favourable in 178 cases (97.8%). We noted 4 deaths (2.2%). There was no relapsing case.

Conclusions: The rate of ABT in our region was alarming. The diagnosis should be considered in front of abdominal signs in endemic countries, in order to avoid the diagnostic delay and complications.

PV382 / #367

BUDD-CHIARI SYNDROME IN BEHÇET'S DISEASE: ABOUT 2 CASES

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Background and Aims: Budd-Chiari syndrome (BCS) is a serious complication of Behçet's disease (BD) and defines obstruction of the hepatic venous outflow.

Methods: We report two cases of BCS among 126 patients followed for Behçet's disease.

Results: *Case 1:* A 19-year-old man, followed for BD (mucocutaneous involvement) for 3 years. He had acute abdominal pain, hepatomegaly and ascites. Biology revealed cytolysis, cholestasis and prolonged prothrombin time. Doppler ultrasound and computed tomography showed ascites, hepatomegaly, portal hypertension at 17 mmHg and confluent thrombosis of the hepatic veins and the inferior vena cava. Corticosteroids at 0.5 mg/kg/day, anticoagulation and colchicine were prescribed. The evolution was good after 14 years.

Case 2: A 55-year-old woman, followed for BD (mucocutaneous involvement and recurrent venous thrombosis of the lower limbs) of 21 years evolution. The patient presented with spontaneously resolving dysarthria within 24 hours, palpitation and asthenia. The examination showed hepatosplenomegaly, ascites and collateral venous circulation. The neurological exam was normal. Biology showed cytolysis, cholestasis and prolonged prothrombin time. The Echocardiography found a left atrial thrombus. On computed tomography, he had segmental pulmonary embolism. Cerebral magnetic resonance imaging revealed signals in favor of a neoBehçet. Doppler ultrasound confirmed thrombosis of the hepatic veins and the inferior vena cava. Cyclophosphamide, corticosteroids at 1 mg/kg/day, anticoagulation and colchicine were administered. The outcome was good with a follow-up of 5 years.

Conclusions: BCS by thrombosis of the hepatic veins or/and the inferior vena cava can be seen in BD. The prognosis remains favorable under medical treatment.

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BUDD-CHIARI SYNDROME: EPIDEMIOLOGICAL, CLINICAL AND THERAPEUTIC FEATURES IN AN INTERNAL MEDICINE DEPARTMENT

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Background and Aims: Budd-Chiari syndrome (BCS) is defined by an impaired venous outflow. We aim to identify the epidemiological, clinical, therapeutic features and the evolution of BCS.

Methods: A retrospective monocentric study reviewing the medical records of all patients with BCS hospitalized between 1997-2020 in an internal medicine department.

Results: Six patients were identified including 3 men and 3 women. The mean age was 43 years old [19-86 years old]. Two patients had a history of venous thrombosis. Clinical presentation was acute in 5 patients and chronic in one patient. The principal manifestations were ascites (4 patients), abdominal pain (3 patients), hepatomegaly (3 patients), splenomegaly (2 patients) and gastrointestinal bleeding (1 patient). The diagnosis was made by ultrasonography, computed tomography, or magnetic resonance imaging. BCS was primary in 5 patients and secondary in one patient associated with a malignant tumor. Two patients had Behçet disease when the BCS was diagnosed. One patient had an angio-Behçet and a neuro-Behçet associated. One patient had antiphospholipid syndrome with thromboembolic manifestations. Two patients hadn't evident etiology. The average follow-up time was 5 years [1month-14years] for 5 patients. All patients were on anticoagulant therapy. The corticosteroids at 0.5-1mg/kg/day were given for 2 patients and cyclophosphamide for one patient. A transjugular intrahepatic portosystemic shunt was performed in one patient. The outcome was favorable in 2 patients. One patient had hepatic cirrhosis. No patients died during the follow-up time.

Conclusions: Budd-Chiari syndrome is a rare disease with a greatly varied clinical presentation and etiologies.

PV384 / #407

THE USEFULNESS OF THE MRCP EXAMINATION IN DIAGNOSTICS OF CHOLEDOCHOLITHIASIS IN POST-CHOLECYSTECTOMY PATIENTS

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Background and Aims: This study aimed to evaluate the MRCP findings in the detection of choledocholithiasis in patients after cholecystectomy.

Methods: The cross-sectional retrospective study was performed at the Department of Interventional Radiology and Neuroradiology in the Independent Public Clinical Hospital No. 4 in Lublin, Poland. The MRCP results of 104 post-cholecystectomy patients with suspected biliary obstruction hospitalized between 2009 and 2018 were reviewed. The number and size of the stones were measured. Biliary dilation was defined as a CBD diameter greater than 10 mm because the patient status was post-cholecystectomy. Groups were compared with the T-student test.

Results: The mean age of the patients was 60.86±16.10 (range 19–88) years, and 76.9% (n=80) of the patients were women. In 40 patients with suspected obstruction potential cause of symptoms

was not seen. Totally in 64 (61.5%) patients the obstruction was found, and the best-recognized cause was choledocholithiasis (n=24, 23.1%). All stones were found in the common bile duct and they ranged in maximum diameter from 2 to 14 mm (mean 8.10mm). Mean CBD diameters based on the MRCP findings were 10.9 (range 5.12-25.92) mm for patients with choledocholithiasis and 10.3 (range 4.04-30.05) mm for patients without CBD stones (p=0.598). In eleven patients, the stones were located in a nondilated duct.

Conclusions: MRCP allows a physician to recognize the causes of biliary obstruction including choledocholithiasis. Based on MRCP assessment the size of bile stones, as well as diameter of CBD, can be determined.

PV385 / #426

A DIAGNOSTIC CHALLENGE

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Background and Aims: Gastrointestinal bleeding (GI) is a common condition, motivating many hospital admissions.

Methods: Case Report.

Results: 83-year-old woman, pacemaker carrier with arterial hypertension, dyslipidaemia, multinodular goiter, cervical cancer (excised) and atrial fibrillation. Medicated with omeprazole, methimazole and apixaban. Recent hospitalization due to anaemia, reticulocyte count of 3.1%, low ferritin level and no vitamin deficiencies. In outpatient re-evaluation, complaints of dizziness and asthenia, with loss of consciousness, mucous vomits and black stools. On examination, hypotension, tachycardia and a systolic murmur. Analytically, microcytic hypochromic anaemia with 5.5 g/dl of haemoglobin, urea-to-creatinine ratio of 70, TSH of 1.20 mUI/L and T4L of 21.7 pmol/L. Peripheral blood smear with mild anisocytosis and hypochromia. After hospitalization, diagnostic workup revealed an upper endoscopy with no lesions, inconclusive colonoscopy and no signs of active bleeding in abdominal CT angiography. Due to objectified melaenas and need of recurrent blood transfusions, a capsule enteroscopy was performed, suggesting blood in the lumen of proximal jejunum. Double balloon enteroscopy was executed, revealing only cicatricial lesions. Erythrocyte scintigraphy discovered signs of active bleeding, possibly in the ileocecal transition. After 12 red cell unit transfusions and multiple studies, patient anaemia stabilized. After ferric carboxymaltose administration and 24 days, patient was discharged with indications to stop apixaban. On short term re-evaluation, no bleeding recurrence, haemoglobin of 9.7 g/dl.

Conclusions: Obscure GI bleeding is the least common form of GI bleeding, with a broad differential diagnosis. Frequently, it is caused by vascular ectasias difficult to find and manage, leading to a challenging diagnostic and therapeutic approach.

PV386 / #435

SCURVY: A DISEASE NOT TO BE FORGOTTEN

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Background and Aims: Vitamin C, or ascorbic acid, is an organic hydrosoluble compound that plays an important role in human and animal physiology. While most animals can synthesize vitamin C by themselves, humans must rely on diet to obtain it. Foods containing vitamin C are fresh fruit and vegetables. A diet poor in these foods may lead to vitamin C deficiency, and possibly to scurvy. Indeed, although scurvy is usually considered a disease of the past, it is still present nowadays.

Methods: An 18-year-old man presented to our Hospital with muscular pain, diffuse petechiae, spontaneous thigh ecchymosis, edema and pain of the right knee, bilateral pretibial subcutaneous nodules and gingival hypertrophy and hemorrhage. His history was positive for a mixed anxiety-depressive disorder and a restrictive diet due to self-diagnosed food allergies. Skin lesions appeared like hyperkeratotic papules with coiled hairs and perifollicular hemorrhages.

Results: A diagnosis of scurvy was made, upon demonstration of low serum levels of ascorbic acid. An allergy evaluation found cross-reactivity between pollens and food, related to the presence of panallergens. Moreover, we found that our patient was also affected by celiac disease.

Conclusions: Scurvy should be considered in the differential diagnosis of patients with petechiae and ecchymosis, especially when food restriction, malabsorption, or psychiatric disorders are present.

PV388 / #474

SUPERIOR MESENTERIC ARTERY SYNDROME – A RARE CAUSE OF PERSISTANT ABDOMINAL PAIN.

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Case Description: Introduction: Superior mesenteric artery (SMA) syndrome is a rare cause of duodenal obstruction. Characterized by straightening of the space between the superior mesenteric artery and the aorta, it is due to a reduced aortomesenteric angle (<25°). It manifests itself after loss of mesenteric adipose tissue

leading to compression of the third part of the duodenum.

Clinical Hypothesis: Case description: 40-year-old female presenting with 2-3-month complaint of constant, dull epigastric pain and 10kg weight loss in the previous 1.5 months. Fatigue and changes in bowel movements, with several hard stools per day were also present. Physical exam showed a hard, elastic epigastric mass. Blood work, abdominal ultrasound and colonoscopy were normal. Upper GI endoscopy revealed a *Helicobacter Pylori* antral chronic gastritis, which despite eradication did not improve symptoms. An abdominal and pelvic CT showed an aortomesenteric angle of 12° and an aortomesenteric distance of 6mm, compatible with SMA syndrome. During this period a further weight loss of 6 Kg aggravated her symptoms.

Diagnostic Pathways: She was started on nutritional support with fractionated feeding and solid eviction together with metoclopramide, with a good clinical response.

Conclusion and Discussion: SMA syndrome is rare and difficult to diagnose. Symptoms are unspecific and frequently unrelatable to findings on imaging. This patient presented with significant weight loss, a common risk factor for the disease, associated with duodenal obstruction. Together with imaging findings this allowed for a diagnosis and the first step in treatment – nutritional adaptation.

Uptodate Superior mesenteric artery syndrome: A diagnosis to be kept in mind *Int J Surg Case.* 2017

PV389 / #482

PYOGENIC HEPATIC ABSCESES – AN EXTRAVAGANT PRESENTATION OF THE DISEASE.

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Background and Aims: 61-year-old woman who came to the Emergency Department with complaints of nausea, vomiting, fatigue and generalized abdominal pain for the past week. Her physical exam showed a tachycardic, hypotensive patient with significant epigastric and right upper quadrant pain on palpation, associated with painful hepatomegaly. Following initial stabilization, the patient was submitted to an Abdominal and Pelvic CT scan which revealed several cystic images of unclear etiology (*Figure #482 a b c*). Differential diagnosis included pyogenic abscesses, necrotic infected liver metastasis, hydatid cysts and cystadenocarcinoma. Further investigation concluded that the cystic images were pyogenic abscesses caused by peritonitis secondary to a perforated sigmoid colon cancer. She was started on empiric antibiotic therapy with ceftriaxone and metronidazole, with good clinical response, followed by extensive surgical removal of infected tissue.



#482 Figure A: Right and left lobe hepatic abscesses (transverse abdominal CT cut)



#482 Figure B: Right and left lobe hepatic abscesses (transverse abdominal CT cut)



#482 Figure C: Hepatic abscesses (longitudinal abdominal CT cut)

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A RETROSPECTIVE AUDIT OF BIOLOGIC-CENTERED CARE GIVEN TO THE INFLAMMATORY BOWEL DISEASE COHORT OF A MODEL 3 HOSPITAL

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Background and Aims: The advent of biologics has revolutionised treatment of inflammatory bowel disease (IBD) in recent years. Although effective, their immunosuppressive effects predispose individuals to opportunistic infections. The British Society of Gastroenterology recommends screening for HepB, HepC, VZV, HIV and TB prior to biologic commencement, with subsequent annual review. To review the biologic-centred care given to IBD patients commenced on biologics between 2006 – 2020 against the BSG Guidelines (2019).

Methods: Candidates commenced on biologics between 2006 – 2020 were selected from Medical Investigations Clinic records. Exclusion criteria includes: biologic commencement in other centres, lost to follow up or discontinued treatment. Age, gender, annual follow-up status, year of biologic commencement and screening were sourced from electronic records and analysed. Ethical approval was not required. GDPR guidelines were followed.

Results: 88 patients were eligible; 43 females and 45 males, aged 17-76 years. 40 were diagnosed with Crohn's, 45 Ulcerative colitis, 3 indeterminate diagnosis. 98% had either partial or completed pre-biologic screen. of these, 81.8% were screened for >3 components (3=27%, 4=30.7%, 5=26.3%), with highest proportions for TB (93.2%), Hep B (85.2%) and VZV (80.7%). of the completed screening, 85.7% were among patients commenced on biologics between 2016-2020. Pearson correlation between biologic commencement year and screening rate is 0.717 ($p < 0.001$). 77% had annual review scheduled.

Conclusions: Virtually all IBD patients commenced on biologics had some form of pre-biologic workup, with our data reflecting significant improvement in standard of screening in recent years. Further assessment of compliance rates with cervical cancer screening programmes is considered for database completion.

PV391 / #504

A IATROGENIC CAUSE OF CHRONIC HEPATIC FAILURE

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Case Description: A 70-year-old woman with relevant past medical history of a localized adenocarcinoma of the ampulla of Vater submitted to surgery, radiotherapy and chemotherapy 17 years ago and 5 years later was submitted to a whipple procedure due to subocclusive episodes and remained otherwise healthy, became astenic with loss of appetite, confusion, bilateral leg

edema, abdominal enlargement and bleeding of the gums. On examination she was pale, had ascites and petechiae.

Clinical Hypothesis: Initial evaluation revealed anaemia (with both ferropenia, folic acid and vitamin B12 deficiency), thrombocytopenia, a cholestatic pattern of hepatic enzyme elevation, an INR of 1.5. Further work found no elevation of traditional tumor marks nor neoplastic cells on the pathology of the ascitic liquid. A computerized tomography, positron emission tomography and exploratory laparotomy were performed and no evidence of tumor recurrence was found.

Diagnostic Pathways: Both performance status, symptoms and analytical parameters improved after aggressive vitamin reposition, diuretics and laxative therapy. After direct investigation and normal myelogram, thrombocytopenia was assumed in the context of splenic sequestration. Traditional infectious, metabolic and autoimmune etiologies of chronic hepatic failure were excluded and it was assumed in context of portal vein fibrosis as the result of radiotherapy.

Conclusion and Discussion: As oncology advances and more patients are cured, long term complications of cancer treatment regimens will arise and become increasingly more frequent in clinical practice.

PV392 / #517

PRIMARY PYOPERITONEUM COMPLICATED BY ACUTE PYLEPHLEBITIS : AN UNUSUAL CAUSE OF ABDOMINAL PAIN IN A PATIENT WITH TYPE 2 DIABETES MELLITUS

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Background and Aims: Primary peritonitis is defined as spontaneous, generalized peritoneal inflammation in the absence of an intra-abdominal infection. Albeit rare, peritonitis can lead to a fatal condition called acute pylephlebitis which is a suppurative process leading to portal vein thrombosis. The authors present the first reported case of primary pyoperitoneum with acute pylephlebitis in a patient with type 2 diabetes mellitus presenting with abdominal pain.

Methods: A 65-year-old female, a known case of type 2 diabetes mellitus, non-compliant with her oral hypoglycemic medication presented with episodic abdominal pain and diarrhea. Abdominal ultrasound revealed extensive porto-systemic anastomoses and gross ascites. Purulent ascitic fluid was tapped with cultures growing *Klebsiella pneumoniae*. CECT abdomen revealed presence of extra hepatic portal vein obstruction with peritonitis and intra-abdominal fluid collections. Workup for secondary etiologies of pyoperitoneum did not yield any cause.

Results: Primary peritonitis leading to extensive pyoperitoneum is rare and a very high index of suspicion is required to make a prompt diagnosis to prevent the development of fatal complications such as septic portal vein thrombosis that occurred in our patient.

Conclusions: Abdominal pain in an adult with type 2 diabetes mellitus requires an exhaustive diagnostic exercise with a wide range of possible etiologic factors. Primary peritonitis should be considered as a rare differential for abdominal pain in diabetic patients and such patients require early institution of antibiotics, aggressive fluid resuscitation and adequate surgical control. In conclusion, patients with diabetes mellitus warrant an extensive workup for abdominal pain due to the multitude of disorders causing the problem.

PV394 / #523

OLMESARTAN-INDUCED ENTEROPATHY - A CASE REPORT

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Background and Aims: Chronic diarrhea has more than 4 weeks of duration and can be secretory, osmotic, inflammatory, among others. In immunocompetent patients in developed countries, the cause is rarely infectious, and its diagnosis presents a challenge (Schiller et al., 2017).

Methods: An 83-year-old man with type 2 diabetes mellitus, arterial hypertension and dyslipidemia, medicated with olmesartan, hydrochlorothiazide and sitagliptin, went to the ER for 1 to 3 vomits per day for the last 3 days. He reported liquid dejections 3/4 times a day for about 6 months. On physical examination, he was dehydrated, hypotensive and tachycardic. Analytically, he had 5.1 mg/dL of creatinine, 167 mg/dL of urea and leukocytosis. He was admitted for treatment of acute kidney injury and investigation of chronic diarrhea. Stool microbiologic and parasitological testing was negative as well as plasma anti-transglutaminase and IgA anti-endomysial antibodies. The hypothesis of olmesartan-induced enteropathy was raised and this medication was left out of the patient treatment with consequent resolution of diarrhea during hospitalization.

Results: Endoscopies showed atrophic gastropathy. Duodenal histology showed partial villous atrophy without criteria for celiac disease. He was discharged without this medication and remained asymptomatic. Histology was repeated after one year, now without villous atrophy, confirming the diagnosis of spruelike enteropathy by olmesartan.

Conclusions: Olmesartan-induced enteropathy is a known entity characterized by diarrhea, weight loss and damage to the duodenal mucosa. These patients have varying degrees of villous atrophy without antibodies characteristic of celiac disease. Discontinuation of olmesartan is enough to reverse symptoms and histological changes (Rubio-Tapia et al. 2012).

PV395 / #550

ACUTE HEPATITIS: A CHALLENGING CLINICAL ISSUE!

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Background and Aims: Autoimmune hepatitis is considered a relatively rare disease (16-18 cases/100,000 inhabitants in Europe). It may be associated with certain conditions such as primary biliary cirrhosis, primary sclerosing cholangitis, non-alcoholic steatohepatitis (NASH), alcoholic, toxic or viral hepatitis.

Methods: Case report.

Results: Male, 68yo. Admitted to emergency department with jaundice, asthenia, anorexia, nausea and weight loss. He had no signs of encephalopathy and he denied risky contacts or toxic abuses. Laboratory tests showed cholestatic liver pattern (total/direct bilirubin of 18/14mg/dL) and prolonged clotting time. Ceruloplasmin was normal and ferritin was slightly elevated. Hypergammaglobulinemia (elevated IgG levels) was found. Immunological study revealed high ANA titers (1:640) and positive anti-smooth muscle antibodies (1/80). AMAs, ANCAs, anti-Sp100, anti-GP210, anti-LKM and anti-SLA/LP antibodies were non-reactive. The patient was HCV, HBV and HIV negative. However anti-HAV IgM titers were strongly positive. Liver biopsy was performed and showed significant architectural distortion with portal inflammation and interface hepatitis. The diagnosis of HAI was established but clinical features were probably triggered by a viral infection. The patient started induction therapy with steroids with clinical improvement.

Conclusions: This case report highlights the wide spectrum of AIH manifestations that range from the absence of symptoms to acute and potentially fulminant episodes. Without treatment, it may lead to cirrhosis and eventually liver failure and death.

PV396 / #570

A CURIOUS CASE OF ABDOMINAL PAIN: MESENTERIC PANNICULITIS

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Background and Aims: Mesenteric panniculitis is a unique form of inflammation of the mesenteric adipose tissue. The etiology is unknown but it has been linked with various conditions such as cancer, abdominal trauma, previous surgery, autoimmune diseases and obesity. It can be divided into the mesenteric panniculitis with only the inflammation and degeneration of the mesenteric fat, and the retractile panniculitis, which is mainly fibrotic, with retraction of the surrounding structures.

Methods: A 73-year-old man with history of cirrhosis of mixed etiology (alcoholic and hepatitis B) and arterial hypertension was

presented to the emergency department with diffuse abdominal pain, irradiating to the left flank. At physical examination: globe abdomen, tympanic with flank dullness, highly painful to superficial and deep palpation.

Results: Blood tests show leukocytosis, neutrophilia and elevated cholestasis markers. Abdominal CT-scan revealed cirrhotic liver compatible with chronic hepatic failure and mesenteric peritoneal micronodular densification on the left flank. The patient was admitted for treatment with ceftriaxone, metronidazole, colchicine and corticosteroids. The symptoms completely resolved with the provided treatment and the patient was discharged home with an internal medicine follow-up.

Conclusions: The mesenteric panniculitis is a rare disease. It is mainly asymptomatic and is often found incidentally during the execution of diagnostic exams, performed for other reasons. Nevertheless, it may cause symptoms like abdominal pain, dyspepsia, constipation or diarrhea. In a small percentage it may produce intestinal obstruction, thus requiring urgent surgery. Therefore the importance of the understanding of this condition and its complications is critical to avoid mismanagement.

PV397 / #598

A PECULIAR CASE OF NON-CIRRHOTIC PORTAL HYPERTENSION

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Background and Aims: Primary amyloidosis is a systemic disorder characterized by the deposition of an insoluble protein matrix in the extracellular space caused by the overproduction of an amyloidogenic light chain of immunoglobulins in patients with monoclonal gammopathies or other B-cell lymphoproliferative diseases.

Methods: Case report description.

Results: A 60-year-old man was referred to our Centre for liver transplant evaluation for decompensated liver cirrhosis. The patient had been diagnosed with cryptogenic liver cirrhosis 5 months earlier, after development of ascites and hepatic encephalopathy. No viral or metabolic cause of liver cirrhosis was found. The patient presented with hepatomegaly and tense ascites. Upper endoscopy revealed F1 blue varices. Spleen was normal as platelet count. Serum-ascites albumin gradient was 2 g/dl. Abdomen imaging was unremarkable. As part of the transplant evaluation an echocardiogram revealed obstructive hypertrophic cardiomyopathy. Shear wave elastography revealed extremely high liver stiffness (140 kPa). A liver biopsy was performed with evidence of a massive deposition of eosinophilic amorphous material, mixed with atrophic hepatocytes with no signs of cirrhosis. Congo red staining revealed marked birefringence in polarized light, consistent with amyloid. An increased level of circulating Kappa light chain was found. Medullary bone biopsy revealed a plasma cells infiltrate equal to 35-38% of bone marrow

cellularity. Systemic amyloidosis in multiple myeloma was diagnosed. The patient died because of sudden liver function deterioration waiting for the treatment of myeloma.

Conclusions: The presence of portal hypertension in patients with hepatomegaly and very high liver stiffness should encourage the execution of liver biopsy to rule out non-cirrhotic portal hypertension.

PV398 / #612

HEPATIC ENCEPHALOPATHY - PRESENTATION OF TERMINAL HEPATIC CIRRHOSIS

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Background and Aims: Alcoholic liver disease has a prevalence which is difficult to quantify, but estimated to be present in approximately 10% to 35% of patients admitted to hospital with alcohol dependence. of cirrhotic patients, it is estimated that 5% to 7% per year progress to terminal liver failure. Male, 65 years, history of liver disease (having abandoned follow-up and therapy), hypertension, dyslipidemia and smoking habits. Goes to the Emergency Department presenting increased tiredness and fatigue for small efforts and edema. Was hemodynamically stable and apyretic but lethargic and confused, GCS 13, with significant ascites under tension and pronounced edema of the lower limbs.

Methods: Case reports.

Results: Analytically: hemoglobin 8.6, INR 1.98, creatinine 2.45, potassium 6.2 and liver function disorders: total bilirubin 12.9 mg/dL, direct bilirubin 10.3 mg/dL, LDH 1601 U/L, transaminases and alkaline phosphatase also increased. Ammonia assay: 176. *ug/dL. Total ChildPugh score C11. Evacuating paracentesis was performed with unsuspected liquid output. It was decided to admit the patient to start supportive therapy, namely for hyperkalaemia and diuretic therapy for volume overload, and to try to stabilize the underlying disease.

Conclusions: However, the patient's condition worsened, he fell into a coma and progressed to cardiac and respiratory failure. Died of cardiorespiratory arrest, approximately 48 hours after admission. This case highlights the importance of a careful objective examination of the patient, which made it possible to suspect of the presence of hepatic encephalopathy in the context of end-stage liver disease.

PV399 / #773

INCIDENCE AND PREVALENCE OF DIGESTIVE DISEASES IN CLINIC OF INTERNAL MEDICINE

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Background and Aims: Gastrointestinal and liver disorders are responsible for around one million deaths each year across Europe across all ages, and are associated with substantial morbidity and healthcare costs. The proposed aims of this research are to estimate the prevalence and the incidence of digestive disorders and diseases among the patients hospitalized in a medical clinic.

Methods: This retrospective research used patients' health records with demographic data, personal medical history, clinical examination, the main biological and imaging changes supporting the diagnosis on discharging from the hospital. All patients' health records used in the study included the patients' consent forms which have been signed by the patients, thus confirming their agreement for their personal data and medical history to be used in scientific and pedagogic research. For all the patients we noted demographic data including age, gender and environment of origin.

Results: The prevalence of digestive diseases was 7.15% for gastroesophageal diseases, 1.62% for intestinal diseases, 15.12% for liver diseases, 2.11% for biliary diseases, 1.08% for pancreatic diseases and 0.65% for digestive cancer. Gastroesophageal diseases included 124 cases with GERD, representing 40% from the gastroesophageal disease subjects. Almost all the patients with intestinal disorders had irritable bowel syndrome. The etiology of liver diseases was: alcoholic steatohepatitis (8%), alcoholic cirrhosis (37%), hepatitis B virus infection (26%), hepatitis C virus infection (16%), viral cirrhosis (12%).

Conclusions: With an increased reported prevalence for the last years, digestive diseases must be discovered in the early stages and periodically monitored for prevent the complication and decrease the mortality worldwide.

PV400 / #803

CAPUT MEDUSAE: A CLEAR SIGN OF CIRRHOSIS

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Background and Aims: Liver cirrhosis, a condition that causes hepatic fibrosis, is considered irreversible at its later stages. This chronic hepatic disease can have multiple complications, most of them triggered by the portal hypertension that subsequently develops. The increased pressure in the portal venous system leads to the formation of venous collaterals and shunts. One of the collateral circulations that may developed is called caput medusae, where the blood is shunted to the umbilical vein and then to the abdominal wall veins, leading to its prominent appearances.

Methods: Clinical image of a patient regularly followed in a hepatic disease's medical appointment (*Figure #803*).

Results: 46-year-old female referred to a medical consultation because of heavy alcohol consumption associated with hepatic abnormalities. Objectively, at the abdomen examination, besides ascites and hepatosplenomegaly, the patient presented with caput medusae.



#803 Figure

After laboratory and image studies, it was established the diagnosis of chronic hepatic disease of alcoholic aetiology, Child Pugh Class B, complicated with portal hypertension, ascites, oesophageal varices, and portal hypertension lead gastropathy.

Conclusions: Alcohol is one of the main hepatotoxic substances known to cause chronic hepatic disease. The continued alcoholic habits can lead to irreversible cirrhosis and its consequences. In the presented case, the patient's clinical context and the physical examination findings made the diagnosis clear even without the benefit of complementary exams.

PV401 / #820

RENAL DYSFUNCTION AND COGNITIVE IMPAIRMENT IN PATIENTS WITH LIVER CIRRHOSIS

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Background and Aims: Chronic renal dysfunction is associated with cognitive impairment in non-cirrhotic individuals and it's common in patients with liver cirrhosis. Although fluid depletion and electrolyte imbalance are known precipitating factors of hepatic encephalopathy (HE) in cirrhotic, the effect of renal dysfunction on cognitive function in this group of patients are largely unexplored.

Methods: A total of 128 patients with cirrhosis were prospectively evaluated for the presence of HE. Two psychometric tests (number connection test A and B (NCT-A/B) were also performed. Serum sodium, potassium and ammonia were performed.

Results: 32% of patients had HE grade 1-2 and /or a NCT-A and B score >3SD of a control population; 12.5% of patients had serum creatinine levels over reference values. Patients with versus without creatinine over reference values had more frequently HE and/or NCT-A and/or NCT-B >3SD, but did not differ in Child-Pugh score or etiology of cirrhosis ($p >0.1$). Patients with vs. without loop diuretics did not differ in creatine values ($p >0.1$). In univariate analysis, the time needed to perform NCT-B was positively related to age, serum creatinine, Child-Pugh score, MEDB, serum potassium, and hospital admission; and was negatively to serum sodium and cholestatic etiology. Serum creatinine was related to the serum ammonia concentration.

Conclusions: Cognitive impairment seems to be related to renal dysfunction in patients with liver cirrhosis. Renal dysfunction might be implicated in the pathogenesis of HE.

PV402 / #823

DRUG-INDUCED LIVER INJURY: AN UNUSUAL AGENT

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Case Description: This case is based on a 82-year-old female with previous diagnosis of type 2 DM, AFib and hyperthyroidism secondary to amiodarone controlled with methimazole. She presented with a recent onset of prostration, anorexia and fever (40°C) within the last 48h, without suggestive symptoms of infection. The physical exam was unremarkable except for a painful abdomen in the upper quadrants.

Clinical Hypothesis: The diagnosis of Drug-Induced Liver Injury, acute cholecystitis and cholangitis were considered.

Diagnostic Pathways: The complementary study showed leukopenia ($3.16 \times 10^9/uL$), a pattern of mixed hepatitis and hyperbilirrubinemia (total bilirubin 5mg/dL) and an elevated c-reactive protein (33 mg/L). The coagulation tests showed a discrete elevation of PT (14.7s) and a normal INR. The Abdominal ultrasound was normal and the screening for hepatotropic virus was negative. A diagnosis of methimazole toxicity with DILI and secondary agranulocytosis was made. After suspension of the drug, the patient presented resolution of the clinical symptoms, mixed hepatitis and recovery of leukocyte counts in the following 8 weeks.

Conclusion and Discussion: Drug-induced Liver Injury composes a challenging diagnosis with an estimated annual incidence of the disease is up to 15 cases for every 100,000 individuals exposed to drugs. Recognizing this entity requires a high level of suspicion given the absense of specific biomarkers - often being a diagnosis

of exclusion. Methimazole is an antithyroid drug with previous hepatic and hematological toxicity description in literature. DILI usually is subacute (within the first three months) and often presents as a mixed hepatitis; overall prognosis is good after drug discontinuation.

PV403 / #850

NO HAIR OR NO LIVER? A CASE OF ACUTE HEPATOTOXICITY INDUCED BY ANTI-HAIR LOSS SUPPLEMENT.

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Background and Aims: Herbal products are widely used because they are often considered by the majority of the population safer than conventional drugs, due to their natural origin, but they may contain active ingredients responsible of drug interactions or organ damage.

Methods: We report a case of an acute hepatitis induced by *Polygonum multiflorum*.

Results: A 61-year-old woman, with unremarkable history of liver disease developed an asymptomatic hepatitis with a predominantly cytonecrotic imprint and mild cholestasis. She suffered from relapsing alopecia areata, treated with a dietary-supplement containing extract of *Polygonum multiflorum* (10 mg per tablet). The product had been taken continuously for the 3 months prior to the onset of liver damage (about 2700 mg in total). The hypothesis of liver damage induced by the herbal product was suspected following the exclusion of other causes of acute hepatitis: no history of alcohol or new drugs intake, negative serological assays for hepatotropic virus, autoimmune and genetic diseases. A liver ultrasound did not reveal morphostructural alterations. A liver biopsy showed hepatocytic necrosis compatible with toxic hepatitis. These data were further evaluated by RUCAM score, totalizing 9 points (highly probable case). After suspension of the supplement, we witnessed a slowly and spontaneous decrease in aminotransferase levels. In the last two weeks S-Adenosyl-Methionine was administered, followed by an acceleration in the decrease of aminotransferase levels and complete recovery after 2 months.

Conclusions: It is mandatory to not underestimate the hepatotoxicity from apparently unknown cause. The physicians should inquire with patients about dietary supplement intake in cases of unexplained liver injury.

PV404 / #913

A 29-YEAR-OLD MAN WITH RECURRENT URINARY TRACT INFECTIONS

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Case Description: A 29-year-old male patient was referred to the Emergency Department with macroscopic hematuria and a 2-month-old history of lower abdominal pain, dysuria, asthenia and 17% weight loss. Gastrointestinal transit was irregular during the previous 5 years, varying from 0-4 discharges a day of soft to liquid stools. He recently completed 2 antibiotic treatments for urinary tract infection (UTI). Patient appeared emaciated and had lower abdominal tenderness. Abdominal ultrasound showed diffuse and discontinuous bowel wall thickening with hyperechoic images inside the bladder, suggesting the presence of air.

Clinical Hypothesis: Recurrent UTI in a young male patient are quite uncommon in the absence of structural urinary tract abnormalities. Air presence in the bladder associated to gastrointestinal and constitutional symptoms are suggestive of inflammatory bowel disease complicated by enterovesical fistula. Diagnostic pathways: EnteroCT revealed discontinuous ileum thickening and EVF associated with a mesenteric abscess. An inaugural diagnosis of Crohn's disease (CD) was established.

Conclusion and Discussion: CD is a chronic inflammatory bowel disease which can lead to progressive bowel damage and extra-intestinal manifestations. Up to one-third of patients presents with strictures, fistulas or abscesses at diagnosis. Internal fistulas develop in 5–10%. While urinary complications may occur, enterovesical fistulas (EVFs) are quite uncommon. We illustrate an unusual inaugural presentation of CD with EVFs, demanding rapid diagnosis and treatment with antibiotics and immunosuppression. In the appropriate clinical context, recurrent UTIs, particularly in a male patient, and the presence of air in the bladder should prompt CD consideration.

PV405 / #967

RADIOLOGICAL INSIGHT INTO PENETRATING CROHN'S DISEASE - CHILDREN VS ADULTS IN MRE

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Background and Aims: Crohn's disease (CD) is a chronic inflammatory bowel disease characterized by lesions and transmural inflammation. The diagnosis is typically made with endoscopic or radiologic findings. Magnetic resonance enterography (MRE) examination plays an important role in imaging diagnostics of inflammatory bowel lesions. It provides detailed information regarding enhancement patterns. The aim of the study was to verify the value of MRE in the evaluation of penetrating CD in adult and pediatric patients.

Methods: The study included 146 adults and 23 pediatric patients diagnosed with CD, who underwent MRE with intravenous

administration of a contrast agent. All studies were performed using a 1.5T scanner according to a local study protocol. All MRE findings were further confirmed by colonoscopy, or intraoperatively if applicable.

Results: In the adult group 30 fistulas were identified: 6 complex perianal, 16 simple intestinal (7 blind and 9 ileo-colonic) and 8 complex intestinal (3 ileo-cecal and 5 ileo-colonic). Peri-intestinal abscesses were observed in 9 patients (6%). In the pediatric group in 5 patients (22%) small intestine fistulas were found, whereas abscess was observed in another 5 patients (22%). In 12 children inflammatory infiltration of peri-intestinal fat was depicted.

Conclusions: MRE is a non-invasive and radiation free modality in diagnosis of CD. It is useful in depicting the entire bowel wall owing to its excellent contrast resolution, detecting complications and differences between active and inactive phase. According to the results of our research, fistulas occurrence is similar in both groups, peri-intestinal abscesses are more encountered in adults, whereas peri-anal abscesses are more characteristic for children.

PV406 / #981

MAGNETIC RESONANCE ENTEROGRAPHY (MRE) - THE ASSESSMENT OF CROHN'S DISEASE

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Background and Aims: Crohn's disease (CD) is a chronic disease that can affect any part of the digestive tract. The usual onset is in teens and twenties. For patients, the most important thing is to make diagnosis and implement proper treatment. Assessing the disease activity and its location, as well as determining complications, play a key role. Patients with CD throughout their lives have repeated imaging follow-ups. The aim of the study was to assess the value of Magnetic Resonance Enterography (MRE) in the evaluation of possible intestinal complications in patients with Crohn's disease.

Methods: The study included 146 patients (82 female and 64 male) diagnosed with CD. They undergone MRE with intravenous administration of a contrast agent at the Department of Interventional Radiology and Neuroradiology, at Medical University of Lublin. All the studies were performed using Siemens Aera 1.5T scanner according to a local study protocol.

Results: In the study, 30 fistulas were identified: 6 complex perianal, 16 simple intestinal (7 blind and 9 ileo-colonic) and 8 complex intestinal (3 ileo-cecal and 5 ileo-colonic). Peri-intestinal abscess formation was observed in 9 patients. All MRE findings were further confirmed by colonoscopy, or intraoperatively if applicable.

Conclusions: MRE is a relatively new examination that provides pictures of entire intestine. It allows for assessment of disease

activity and potential complications of Crohn's disease. Due to lack of ionizing radiation, MRE can be often repeated, and that is useful for patients that require repeated follow-up investigations. MRE is now becoming a fundamental element in the diagnosis of Crohn's disease.

PV407 / #1009

BACK TO BASICS: AUTOIMMUNE HEPATITIS

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Case Description: A 39-year-old healthy woman complained of a 3-days diffuse abdominal pain, nausea, vomiting and hand arthralgia. She denied alcohol, drugs, medications or natural products consumption, as well as denied relevant epidemiological or familiar history. Physical exam was unremarkable.

Clinical Hypothesis: Various diagnostic hypothesis were considered: either intrabdominal or gastrointestinal infection, hepatitis (viral, copper/iron overload or steatohepatitis). Laboratory findings showed AST 753 U/L, ALT 1598 U/L, GGT 107 U/L, FA 141 U/L, total bilirubin 1.77 g/dL and normal INR and albumin. Extensive workup was done.

Diagnostic Pathways: Serologies for HIV, HVC, HVB, CMV, VHS and EBV were negative, along with non-reactive VDRL test. Immunoglobulin G (1500 g/L) and ferritin were elevated (108.9mg/dL) with unaltered transferrin saturation. ASMA and ANA were positive (>1/40), and the remaining autoantibodies were negative (AMA, ALKM-1 and anti-SLA/LP). Abdominal ultrasound was normal. A liver biopsy was performed revealing interface hepatitis, consistent with autoimmune hepatitis (AIH) and no signs of fibrosis.

Conclusion And Discussion: Based on the diagnosis criteria of International Group of Autoimmune Hepatitis, type 1 AIH was assumed (6 points). Prednisolone was initiated with clinical and analytical improvement. Azathioprine was introduced alongside gradual steroid tapering with transaminases significantly trending down. AIH is a rare chronic inflammatory liver disease characterized by circulating autoantibodies, hyperglobulinemia and histological signs of chronic hepatitis with varied phenotypic presentations. The diagnostic workup for AIH aims to differentiate other aetiologies such as viral and toxic hepatitis, iron and copper overload and other autoimmune diseases. Treatment is essential to prevent further progression to cirrhosis.

PV409 / #1021

WHEN RADIOLOGY IS ESSENTIAL FOR DIAGNOSIS

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Case description: Gallstone Ileus (GI) is a rare complication of gallstone disease and a cause of mechanical intestinal obstruction, affecting mainly frail older patients with a female predominance, caused by intestinal migration of a gallstone via a biliary-enteric fistula, usually an cholecysto-duodenal. GI is a potentially serious condition, usually entailing an emergency surgical management aimed at removing the obstructing stone. We report the case of an 88-year-old patient with a history of ischemic stroke and gallstones with a recent complication (acute cholecystitis), who presented to the emergency department with nausea, vomiting, fever and abdominal pain for the last two days. At physical examination, she had right upper abdominal pain but no signs of peritoneal irritation.

Clinical Hypothesis: Gallstone Ileus.

Diagnostic Pathways: Blood tests revealed elevated inflammatory and liver function parameters. Computed tomography imaging revealed a diffusely thickened gallbladder wall and moderate proximal jejunal dilatation with an abrupt transition point caused by an unsuspected gallstone in ectopic location. The patient underwent enterotomy with calculus extraction, without complications.

Conclusion and Discussion: Gallstone ileus is an uncommon case of mechanical bowel obstruction with an high morbi-mortality due to its difficult and often delayed clinical diagnosis, usually determined by imaging studies.

PV410 / #1042

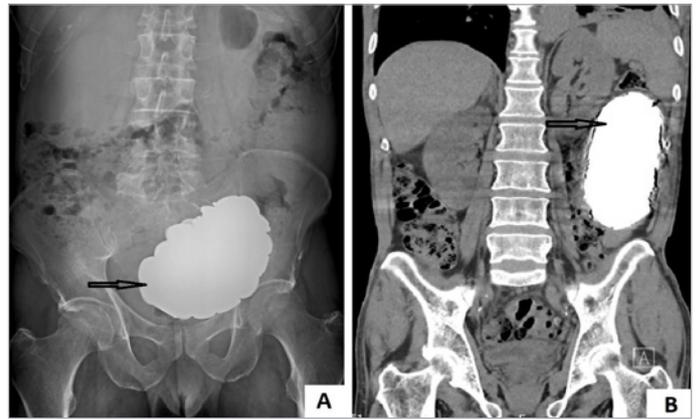
ABDOMINAL BALL

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Case description: The authors report a case of a 63 years-old male with medical history of chronic obstructive pulmonary disease, schizophrenia, and two previous gastric surgeries to remove foreign bodies. The patient was admitted in ward of Internal Medicine with diagnosis of community-acquired pneumonia. During hospitalization he mentioned episodic nonspecific abdominal pain. At physical examination, his abdomen was plane and depressible, abdominal palpation was painless and masses were not palpable; he fed orally without nausea or vomiting, and he maintained intestinal transit regularly.

Clinical Hypothesis: The hypothesis of foreign body ingestion was probable given the patient previous history.



#1042 Figure

Diagnostic Pathways: An abdominal radiography was done and revealed a voluminous hypotransparent pelvic image (Figure #1043 panel A). An abdomino-pelvic CT scan was also performed to better locate the foreign body and revealed a high-density image close to the splenic angle (Figure #1043 panel B).

Conclusion and Discussion: After case discussion with General Surgery and Gastroenterology, a high digestive endoscopy was performed identifying dozens of coins, intragastric, impossible to remove endoscopically. The patient was, then, successfully submitted to laparotomy and gastrotomy to remove the foreign bodies.

PV411 / #1080

ACUTE PANCREATITIS, AN UNCOMMON PRESENTATION OF A RARE DISEASE

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Case Description: 85-year-old man, admitted with intermittent abdominal pain with a personal history of two prior episodes of acute pancreatitis, within the last 6 months, with no known risk factors. On examination diffuse abdominal pain and jaundice.

Clinical Hypothesis: Biliary obstruction by gallstones, pancreatic or biliary malignancy

Diagnostic Pathways: Blood tests showed high levels of liver enzymes, pancreatic enzymes and hyperbilirubinemia. Abdominal ultrasound exhibit a slight dilatation of the intrahepatic duct and common bile duct (CBD), confirmed by magnetic resonance. An ERCP with duodenoscopy was performed showing an enlarged papilla, with an infiltrative aspect; cholangiography revealed a dilated CBD with distal stenosis; pancreatography with exuberant dilation of wirsung requiring the placement of plastic prosthesis. Echoendoscopy revealed a poorly delimited hypoechoic ampule tumor (18mm), invading all layers of the duodenal wall. Biopsy of the ampulla of vater showed an extensive infiltration of neuroendocrine carcinoma, immunohistochemically, staining positive for CD56 and TTF1+. The serum chromogranin A was

elevated (346.3ng/mL). The CT display disseminated metastases in both lungs. Bronchoalveolar lavage was without neoplastic cells. The TNM classification was stage IV (T4NxM1). He was referred to oncology for further treatment.

Conclusion and Discussion: Neuroendocrine tumors are rare and generally difficult to diagnose because of their heterogeneity in terms of location and diversity in their form of presentation, reason why the authors present this case. Most commonly presents with jaundice (60%), abdominal pain (40%), but presentation with acute pancreatitis is extremely rare (3–6%). According to several studies there's poorer prognosis an elderly population, associated with higher grade, advanced metastatic disease, and lung NETs.

PV412 / #1081

HEPATIC VENOUS PRESSURE GRADIENT MEASUREMENT AND TRANSJUGULAR LIVER BIOPSY - A TWO-YEAR, SINGLE-CENTRE EXPERIENCE

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Background and Aims: Portal hypertension (PH) is a severe complication of chronic liver disease. The gold standard for evaluating PH involves hepatic vein catheterization and measurement of the hepatic venous pressure gradient (HVPG). HVPG has prognostic implications with HVPG associated with mortality and increased risk of complications. A transjugular liver biopsy (TJLB) can be performed during the same procedure, and is a safe method in patients with contraindications to percutaneous liver biopsy. Our aim is to evaluate the characteristics of patients, indications and complications of HVPG measurement and TJLB in our first two years of experience at our liver hemodynamic unit.

Methods: A retrospective analysis of patient records, hemodynamic parameters, biopsy specimen quality and procedure related complications was performed in all patients with HPV measurements in our centre since 2019.

Results: Over the 2-year period a total of 107 procedures were performed, with 106 HVPG measurements and 69 TJLBs. There was a male predominance - 66.4% of patients (n=71), and a median age of 55 (IQR 48-64.5 years). The main motives for the procedure were diagnosis of liver disease etiology (49%), investigation/stratification of portal hypertension (18%) and pre-surgical hemodynamic evaluation (13%). The median HVPG was 8mmHg (IQR 4-17.75 mmHg). There were no reported major complications.

Conclusions: HVPG measurement is a safe procedure with important prognostic implications in patients with advanced liver disease, which allows us to better stratify high risk patients.

PV413 / #1082

DRUG-INDUCED LIVER INJURY ASSOCIATED WITH METAMIZOLE

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Case Description: A 24-year old woman presented to the emergency department for new-onset, intense abdominal pain, nausea, vomiting and diarrhoea. Ten days before, she had been diagnosed with mild COVID-19 and treated with acetaminophen, metamizole and domperidone. Physical examination was remarkable for abdominal tenderness, without guarding, jaundice or neurological dysfunction. Lab results showed markedly elevated transaminases (ALT 1637U/L, AST 958U/L, near normal AlkP and γ GT), C-reactive protein, and ferritin. Complete blood count was unremarkable except for mild eosinophilia. Plasma levels of acetaminophen were non-toxic. Viral and metabolic causes were excluded. Elevated IgG and positive ANA and liver antibodies (against LC1, gp210, smooth muscle-actin and LKM1) were present. Ultrasound and abdominal CT showed no evidence of vascular thrombosis or biliary obstruction. During hospitalization, where the patient was being treated with intravenous fluids, metamizole and esomeprazole, clinical recrudescence and laboratory deterioration developed. Upon metamizole withdrawal, gradual symptom and analytical resolution ensued, including antibody titers.

Clinical Hypothesis: Drug-induced liver injury and auto-immune hepatitis were the main diagnostic hypotheses. The possibility of SARS-CoV-2 infection-induced hepatitis was also considered.

Diagnostic Pathways: Hepatic biopsy showed portal inflammatory infiltrate with rare plasmacytes, histiocytes, and some eosinophils, necro-inflammatory reaction foci, and evidence of focal interface hepatitis and occasional emperipolesis, without fibrosis. There was no evidence of SARS-CoV-2 in the hepatic tissue.

Conclusion and Discussion: The temporal relationship between medication and symptom onset, clinical and laboratory course after withdrawal and histologic findings suggest an immune-mediated, drug-induced liver injury. Metamizole is rarely regarded as a suspect causative agent.

PV414 / #1084

A RARE DIAGNOSIS OF ABDOMINAL PAIN

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Case Description: We present the case of a 69-year-old man who presented to the Emergency Department with abdominal pain, weight loss and black, tarry, stools. His past medical history was relevant for a diagnosis of abdominal aortic aneurysm, with an aorto-bifemoral bypass performed four months earlier, as well as anaemia, despite oral iron supplementation. Upon admission, he was normotensive and tachycardic, complaining of abdominal

pain on superficial and deep palpation, most intense on the lower left quadrant; a rectal examination revealed dark stools.

Clinical Hypothesis: Secondary aortoenteric fistula (AEF) is a rare but important complication of aortic reconstruction surgery. The diagnosis is challenging and, if not treated surgically, the mortality rate is very high.

Diagnostic Pathways: Analytically, he had normocytic anaemia. After admission, a sudden decrease of 2gr in haemoglobin was noticed, which prompted an upper digestive endoscopy, which revealed haemorrhage beyond the 2nd portion of the duodenum. An abdominal CT-scan was performed, with IV contrast leaking into the lumen of the 3rd portion of the duodenum, adjacent to the aortic bypass. The patient was transferred to another hospital, where an AEF was diagnosed, and he was submitted to endovascular correction with good results.

Conclusion and Discussion: With this case, we pretend to show how a diagnosis of AEF requires a high degree of clinical suspicion, due not only to its rareness, but also to the existence of confounding factors such as oral iron supplementation in a patient with dark stools. When diagnosis is delayed, consequences can be fatal.

PV415 / #1099

DIABETIC GASTROPARESIS - THE IMPORTANCE OF A DIAGNOSIS IN THE MANAGEMENT OF GASTROINTESTINAL SYMPTOMS

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Case Description: A 75-year-old woman with history of type 2 diabetes mellitus with 12 years of evolution, overweight and essential arterial hypertension, with chronic diarrhea with 2 months of evolution associated with colic-type abdominal pain, nausea, abdominal distension and a feeling of after-prandial fullness.

Clinical Hypothesis: Diabetic gastroparesis.

Diagnostic Pathways: Analytically, presented HbA1c of 10.4% and ferropenic anemia. Total colonoscopy, endoscopy with video-capsule and upper digestive system without changes, besides hiatal hernia. CT of the abdomen showed hepatomegaly due to steatosis. Due to the maintenance of symptoms, a study of gastric emptying with 99m technesium was requested, which revealed an evident delay in gastric emptying, compatible with diabetic autonomic neuropathy.

Conclusion and Discussion: Gastroparesis occurs frequently in diabetics. Given the non-specificity of the symptoms and their low frequency, this complication can be underdiagnosed. Patients with gastroparesis may experience symptoms of stasis (nausea, vomiting, early satiety, bloating, frequent eructation), reflux symptoms (heartburn, regurgitation) or other dyspeptic symptoms. Severe symptoms of neuropathy appear more

commonly in patients with absence of long-term poor metabolic control. Gastric emptying scintigraphy is considered the exam of choice for assessing stomach emptying (sensitivity of 90% and specificity of 70%). Despite the morbidity associated with diabetic neuropathy, its treatment remains unsatisfactory. Glycemic control is an essential part of the therapeutic approach. The pharmacological treatment consists of prokinetic, antiemetics, H1 antihistamines and tricyclic antidepressants. Severe symptom relief is only possible through the use of a nasoenteric tube, jejunostomy, gastric pacemaker or surgery.

PV416 / #1102

HEMOCHROMATOSIS WITHOUT PATHOGENIC MUTATIONS IN THE HEMOCHROMATOSIS GENE

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Background and Aims: Hemochromatosis, although increasingly recognized by clinicians, is still underdiagnosed because it is often considered a rare disorder. It must be carefully investigated, because iron overload in different organs causes toxicity, leading to the development of liver cirrhosis, cardiomyopathy, diabetes mellitus, arthropathy, hyperpigmentation, hypogonadism, and sexual impotence, for example.

Methods: Case report: an 85-year-old man with moderate ethanol habits with severe fatigue, arthralgia, pruritus, right hypochondrial pain for several months. Skin hyperpigmentation was observed and high ferritin values detected and anemia.

Results: Accordingly to the suspicion of hemochromatosis genotyping was performed and revealed negative. Hepatic biopsy showed signs of hemochromatosis. With iron chelator, the patient had a favorable outcome.

Conclusions: It is necessary to warn the population, especially the vulnerable, on the characteristics of the disease and the importance of early treatment

PV418 / #1116

WHAT HEPATITIS IS THIS?

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Case Description: 86-year-old woman was sent to the emergency room for a labile INR in the past weeks (hypocoagulated for atrial fibrillation). She had a hospitalization 4 months earlier for acute hepatitis attributed to zolpidem. Physical exam was

unremarkable. Analysis: transaminase elevation (1400 U/L), mild cholestasis, total bilirubin 11 mg/dl, conjugated bilirubin 8 mg/dl and coagulopathy. She had rhabdomyolysis and acute kidney injury. Abdominal ultrasound was normal. History of trauma, alcohol or drug abuse was absent. She initiated fluid therapy and was admitted to ward, where she evolved to overt hepatic encephalopathy and was transferred to an intermediate care unit.

Clinical Hypothesis: Autoimmune hepatitis (AIH) and myositis, drug-induced liver injury and rhabdomyolysis.

Diagnostic Pathways: Amonia was 90 mg/dl and encephalopathy worsened on the initial hours, with normal cerebral CT-scan and electroencephalogram corroborating the diagnosis. Abdominal CT-scan showed no signs of cirrhosis and patent portal vein. Viral serologies for hepatitis A, B, C, E and VIH were negative. EBV, CMV and HSV IgM-antibodies were normal. Ferritin was elevated, with normal transferrin, paracetamol and imunoglobulin levels. ANA, AMA, dsDNA, hepatic antibodies were negative. She was progressively worse. So, N-acetylcysteine was initiated in the first 24 h. Hepatic biopsy revealed interface hepatitis, with lymphoplasmacytic infiltration. Muscular biopsy was inconclusive. For probable AIH, prednisolone 1 mg/kg was initiated, but the patient succumbed 12 h later.

Conclusion and Discussion: Hepatic failure has several etiologies and patients often deteriorate rapidly before a definitive diagnosis is established. Our patient probably had a seronegative AIH but, due to multiorgan dysfunction that soon developed, corticotherapy initiation wasn't sufficient to avoid this evolution.

PV419 / #1120

LIVER INJURY BY STEROIDS: AN ENTITY TO CONSIDER

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Case Description: 34-year-old man, cyclist, admitted for abdominal pain and hematuria since the previous day. History of aortic valve disease with mechanical prosthesis placement, treated with vitamin K antagonists. He had started steroids consumption (oxandrolone 20 mg per day) in the last two weeks.

Clinical Hypothesis: Drug-induced liver injury (DILI) is a rare adverse drug reaction and it can lead liver failure or even death. Antimicrobials and herbal or dietary supplements intake is the most common cause of DILI in Western World. DILI is a diagnosis of exclusion, thus a careful history is essential for its timely diagnosis.

Diagnostic Pathways: Laboratory tests: Analytically with coagulopathy (TP 250 sec, INR greater than 20 and aPTT 66 sec), AST 241 U/L, ALT 519 U/L, with no changes in cholestatic parameters. Urinalysis: erythrocytes, without other alterations. The abdominal and vesical ultrasounds were normal. Immunological and virological studies were negative. After vitamin K the INR dropped to 4.5, with hematuria resolution. At

2nd day, he developed a drop in hemoglobin. He had an extensive hematoma identified by ultrasound.

Conclusion and Discussion: He showed improvement of liver cytotoxicity only with the suspension of oxandrolone intake. The use of steroids is more and more frequent, especially in young people, so its use should be taken into account when suspected DILI. Accurate clinical history related to medication exposure should be obtained when DILI is suspected, but the other's common etiologies of acute liver injury should be excluded.

PV420 / #1125

PRIMARY BILIARY CHOLANGITIS – A CASE REPORT

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Background and Aims: 35 years old female patient with personal history of cholecystectomy for biliary lithiasis. Admitted with myalgia, asthenia and headache with 2 weeks of evolution, aggravated with nausea, anorexia and pain in the left hypochondrium in the last week. Objectively identified subfebrile temperature and splenomegaly, with no other relevant clinical sign. The blood tests shown normocytic and normochromic anemia (10.9 g/dL), lymphocytosis ($5,3 \times 10^3/\mu\text{L}$), thrombocytopenia ($126 \times 10^3/\mu\text{L}$), cholestatic pattern (alkaline phosphatase 446 U/L) and elevated aminotransferases (AST 123 U/L and ALT 219 U/L). Abdominal ultrasound confirmed splenomegaly.

Methods: Attending the clinical setting and elevation of aminotransferases, a viral hepatitis was the most likely clinical hypothesis. Considering the cholestatic pattern, primary biliary cholangitis (PBC) and primary sclerosing cholangitis were also admitted. Less likely was infiltrative diseases and malignant biliary obstruction.

Results: Laboratory testing confirmed an acute viral infection to cytomegalovirus. After clinical stability and analytical improvement, the patient was discharged and oriented to external consultation. Subsequently, the autoimmune study revealed positive anti-mitochondrial antibodies and anti-nuclear antibodies with a mitochondrial pattern, therefore PBC was confirmed. The patient started therapy with ursodeoxycholic acid and presented resolution of tiredness and abdominal pain.

Conclusions: PBC is characterized by the destruction of the intralobular bile ducts by T lymphocytes; it mainly affects women between 30 and 65 years of age and presents with cholestasis, which can progress to liver cirrhosis. As it is a rare entity with a better prognosis in early stages, the authors consider its importance in the differential diagnosis.

PV421 / #1157

AUTOIMMUNE HEPATITIS IN AN IMMUNOSUPPRESSED PATIENT

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Case Description: A 46-years-old male with known untreated HIV-1 infection, chronic hepatitis B infection and chronic alcoholism was admitted with complaints fever, painful abdomen with recent volume increase, hemorrhagic diarrhea and hematuria in the last month. Clinical examination revealed icteric sclera, hepatosplenomegaly, abdominal pain in the upper quadrants, liver flap, lower limbs edema, cervical and axilar adenopathies. Laboratory findings include hemoglobin 6,5g/dL, leucocytes $3,700 \times 10^6/L$, platelets $62,000 \times 10^6/L$, total bilirubin 4.23 mg/dL, albumin 1.8 g/dL, prothrombin time 33.2s, d-dimers 0.83 mg/dL, activated prothrombin complex concentrate 60,4s, fibrinogen 55 and haptoglobin <10 mg/dL.

Clinical Hypothesis: Causes of acute decompensated chronic liver disease were considered.

Diagnostic Pathways: Protein electrophoresis illustrated a beta/gamma band (Beta2 38,6%, Gama 31,1%) with oligoclonal IgG (6,215 mg/dL) immunofixation pattern. HIV viral load was log5.47, with CD4+ 289 (24%), hepatitis B virus (23 UI/mL), Epstein Barr 2609 copies/mL; HHV-8, CMV, Q fever, and histoplasma serologies were negative. Serology, bone marrow smear and polymerase chain reaction were negative for Leishmania. Despite a compatible immunophenotyping multiple myeloma diagnosis was excluded. Autoimmune studies revealed positive cryoglobulin, antibodies anti-nuclear and cytoplasmic antibodies (immunofluorescence) f-actine, anti-smooth muscle. Liver biopsy confirmed autoimmune hepatitis in a cirrhotic stage.

Conclusion and Discussion: Autoimmune hepatitis is a rare liver disease, especially in HIV and hepatitis B-infected patients. It is defined by autoantibodies, hypergammaglobulinemia and interface hepatitis in the histologic exam. The case illustrates the importance of recognizing the syndrome in patients with established chronic liver disease.

PV422 / #1160

HEPATIC VENOUS PRESSURE MEASUREMENT IN PATIENTS HOSPITALIZED WITH DECOMPENSATED CIRRHOSIS

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Background and Aims: Cirrhosis is a progressive disease, characterised by the development of portal hypertension. The gold standard for evaluating portal hypertension is the measurement of the hepatic venous pressure gradient (HVPG). With increasing HVPG the risk of the development of complications and death grows. The aim of this study is to evaluate the prognostic value of HVPG measurement in a population of patients with cirrhosis admitted to the hospital.

Methods: Retrospective analysis of records of patients with cirrhosis admitted between January 2019 and December 2020, in which a HVPG measurement was performed during the hospitalization.

Results: There were thirteen patients with cirrhosis who were hospitalized and in which an HVPG measurement was performed during hospitalization. There was a male predominance (54%) and the median age was 56 years (IQR 49 - 64 years). The median HVPG was 19 mmHg (IQR 18-21 mmHg) and median MELD on admission of 20 (IQR 14-24). Five patients were admitted due to acute variceal bleed and all had an HVPG >12 mmHg (median 18 mmHg; range 17-20mmHg), four patients were admitted due to severe acute alcoholic hepatitis and had a median HVPG of 20.5 mmHg (IQR 17.25-22.25mmHg). The remaining patients were admitted due to portal vein thrombosis and disease flare. There were two deaths during hospitalization both with an HVPG >20 mmHg and a median MELD of 22.5.

Conclusions: HVPG predicts clinical decompensation in patients with cirrhosis. An HVPG >20 mm Hg is associated with highest risk of mortality. HVPG measurement has important prognostic implications in patients with cirrhosis in non-critically-ill cirrhotic patients.

PV423 / #1164

DRUG INDUCED HEPATITIS IN A YOUNG COVID-19 PATIENT

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Case Description: We describe a case of a 25-years-old man, admitted with the diagnosis of COVID-19 pneumonia. Lopinavir/ritonavir (LP/r) was initiated. On the seventh day of therapy, an elevation of aminotransferases was noted, with an alanine aminotransferase of 1,357 U/L and an aspartate aminotransferase of 210U/L. Bilirubin, gamma-glutamyltransferase and alkaline phosphatase were normal. The patient remained asymptomatic with no findings on the physical examination.

Clinical Hypothesis: LP/r induced acute hepatitis was hypothesized.

Diagnostic Pathways: AngioCT-scan showed a mild liver enlargement with no evidence of vascular thrombosis. Hepatitis virus serologies were negative. ANA, ASMA, ANCA and anti-LKM were negative. Iron and copper studies were normal. A pharmacological cause was postulated, since the patient was taking LP/r and amoxicillin/clavulanic acid. We postulated the higher contribution of LP/r to the hepatic injury. The drug was discontinued and in the subsequent days, aminotransferases slowly decreased. The patient remained asymptomatic with no evidence of acute hepatic failure.

Conclusion and Discussion: LP/r is a protease inhibitor that in the beginning of the SARS-CoV-2 pandemic some studies found to have a significant in vitro benefit in blocking viral replication, therefore its use became standard for the treatment of moderate to severe COVID-19. Although known to cause asymptomatic elevation of hepatic markers, typically such elevation remains below 5x the normal range and is seen mainly in patients with hepatic disease known. In this case, we present a LP/r drug induced acute hepatitis in a previously normal patient with no hepatic disease and a severe elevation of aminotransferases.

PV424 / #1169

USE OF PROTON PUMP INHIBITORS WITHIN AN INTERNAL MEDICINE DEPARTMENT

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Background and Aims: Introduction: Proton Pump Inhibitors (PPIs) were introduced in the 1980s, representing a revolution

in the treatment of digestive diseases related to the secretion of gastric acid, with common use in the prophylaxis of ulcerative disease. They are chronically used at a large scale often without any medical advice. The objective is to evaluate the prescription profile of PPIs in an internal medicine department and determine if its use in prophylaxis of ulcer disease is appropriate during hospitalization.

Methods: In 2020, over a period of 15 days, a retrospective observational study was conducted on patients admitted to an internal medicine department at a district hospital. Demographic data collected, cause for hospital admission, prescribed medication, and daily therapeutic prescription during hospitalization and after discharge were all analyzed to obtain data referring to the prescription of PPIs. Statistical analysis: Microsoft Excel.

Results: During the observational study, 113 patients were admitted, 58 of whom were male (median age 75.1 years) and 55 were female (median age 81.6 years). During this period 72.5% of the patients (82 out of 113) were treated with PPIs, and of these, only 20% (16 out of 82) had criteria for prophylaxis of ulcer disease. Among patients who underwent PPIs during hospitalization, 87.5% of these were using PPIs pre-admission.

Conclusions: This study shows that the use of PPIs in non-critical patients is often unnecessary. It's intended to alert the importance of the rational use of PPIs in the prophylaxis of ulcerative stress disease.

PV425 / #1199

SIGMA VOLVULUS IN ADULTHOOD

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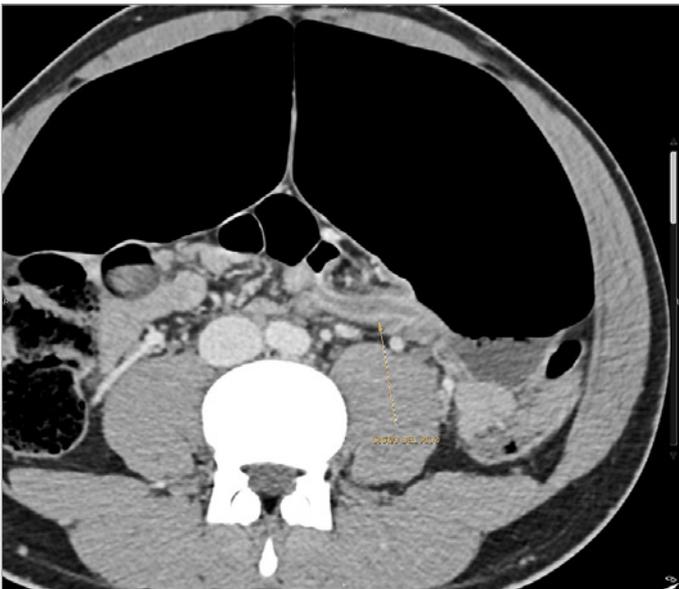
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Case Description: 20-year-old male, with no background of interest, who comes up to emergencies because of vomiting in coffee sediments and diffuse abdominal discomfort that has been exacerbated in recent days. It describes abdominal pain of predominantly periumbilical origin that worsens after ingesting, accompanied by diarrhea without pathological products, of approximately one year of evolution. In the physical examination, increased hydroaerial noises and distended bowel loops at the epigastric level stand out.

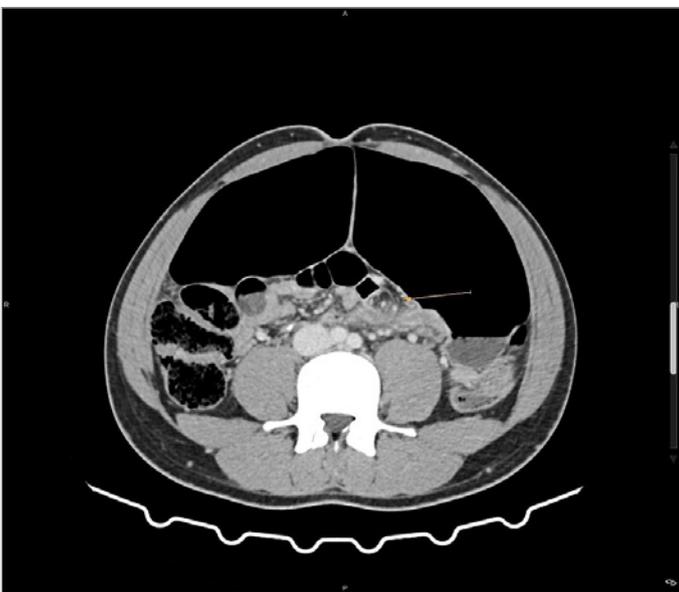
Clinical Hypothesis: Computed tomography is performed (*Figure #1199a*) which reveals a stenosis of the sigma at a distal level "sign of the peak", as well as the "sign of the swirl" (*Figure #1199b*) in relation to the rotation of the mesentery and mesenteric vessels, visualizing a distended sigma situated above the transverse colon, all of this in relation to the sigma volvulus.

Diagnostic Pathways: A colonoscopy is carried out repairing intestinal volvulus, and no signs of mucosal suffering are observed.

Conclusion and Discussion: The sigma volvulus is not a common pathology at this age, being the most frequent cause the



#1199 Figure A



#1199 Figure B

Hirschsprung's disease, whose incidence in adulthood is low. In these cases it is the histological study that establishes the diagnosis of certainty.

PV426 / #1204

SEROLSAL TYPE OF EOSINOPHILIC GASTROENTERITIS: A RARE DISEASE

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Case Description: A 55-year-old woman with atopy history complained of a 7-day history of abdominal pain and distension, nausea and diarrhea. of relevance, she took a Ulmus rubra-based

supplement one week before the beginning of symptoms, without other relevant epidemiological findings.

Clinical Hypothesis: The main diagnostic group hypothesis was infectious disease.

Diagnostic Pathways: Laboratory results revealed eosinophilia (up to $14.2 \times 10^9/\text{mL}$) and no immature myeloid precursors. Inflammatory markers, electrophoresis and IgE levels were normal. Serologies for HIV, HBV, HVC, EBV and CMV were negative. Stool analysis ruled out parasitic, viral and bacterial infection, in addition to negative ELISA test for Toxocara and Strongyloides. Bone marrow study was negative for primary haematological diseases. A thoracic-abdomino-pelvic CT and echocardiogram showed no significant findings, other than moderate ascites. Diagnostic paracentesis was moderately cellular with 87% of eosinophils, sterile and negative for malignant cells. Endoscopies demonstrated mild diffuse erythema and histology revealed marked inflammatory eosinophilic infiltration in the lamina propria of distal ileus and colon.

Conclusion And Discussion: The findings confirmed the diagnosis of subserosal EGE with ileocolitis involvement possible triggered by Ulmus rubra-supplement. Systemic steroids were started with dramatically improvement and no relapse after one-month evaluation. Eosinophilic gastroenteritis (EGE) is a heterogeneous inflammatory disorder involving different gastrointestinal layers, being the subserosal type the rarest. Subserosal involvement of EGE must be considered in patients with abdominal symptoms, peripheral eosinophilia and eosinophil-rich ascites. Allergic predisposition may be implicated in the etiology of this disease.

PV427 / #1215

LIVER STEATOSIS IN PATIENTS TREATED WITH METHOTREXATE FOR RHEUMATOID ARTHRITIS IS RELATED WITH BODY MASS INDEX

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Background and Aims: Methotrexate (MTX) is the principal treatment for rheumatoid arthritis (RA). Long term use has been associated with liver steatosis (LS) and liver fibrosis (LF). The aim of our study is to determine if LS in patients treated with MTX for AR is associated with MTX cumulative dose (MTX-CD), metabolic syndrome (MtS), body mass index (BMI) and LF.

Methods: A single centre prospective study of patients receiving MTX for AR was performed from february 2019 to february 2020. Transient elastography (fibrosan, echosens) was used for fibrosis determination (LF >7 KpA). CAP for liver steatosis (CAP >248 dB/m). Demographic variables, laboratory data, MTX-CD (>4000 mg), MtS criteria, BMI (>25), TE and CAP scores were collected from all patients.

Results: Sixty patients were included. Forty-four were women (73.33%) and mean age was 61.58-yr-old (SD 11,63). When we compared MTX-TCD \leq 4000 mg (26 patients) -No LS 12, LS 14- with >4000 mg (34 patients) -No LS 21, LS 13- no statistical differences were seen (p=0.228). We compared CAP scores with MtS, BMI and LF: There were no significant differences with the presence or not of MtS or LF. CAP/MtS: 51 no MtS (85%), 9 MtS (15%), p=0.156. CAP-Fibrosis: 54 No LF (90%); 6 LF (10%), p=0.261. LS determined by CAP was significantly associated with BMI>25. CAP/BMI: 22 BMI \leq 25 (36.67%); 38 BMI>25 (63.33%), p=0.001.

Conclusions: Liver steatosis in patients with AR treated with MTX is not associated with MTX-CD, LF or MtS. BMI is significantly related to LS in these patients.

PV429 / #1287

EPIDEMIO-CLINICAL PROFILE AND PROGNOSTIC FACTORS OF ESOPHAGIC CANCERS

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Background and Aims: Esophageal cancer is rare, but it remains a serious problem due to its severity. The aim of this work is to describe the epidemiological and clinical profile as well as to analyze the therapeutic results of esophageal cancer in southern Tunisia.

Methods: This is a retrospective study conducted over 10 years (January 2009 -December 2019) at the Habib Bourguiba hospital in Sfax. We included patients treated for histologically confirmed esophageal cancer.

Results: We collected 25 patients whose mean age was 57.8 years (range: 27 and 77 years). The sex ratio was 1.08. These lesions were located in the cervical esophagus in 36% (n=9), from the middle 1/3 in 28% (n=7), to the 1/3 lower union in 24% (n=6). On histology, squamous cell carcinoma was the dominant type (64%), 36% were adenocarcinomas. At the time of diagnosis, 46% of tumors were T4 and 20% were metastatic to begin with. Three patients were operated on straight away. Fifteen patients received exclusive radiochemotherapy. Seven patients received palliative treatment. Overall survival was 33% at 1 year and 10.3% at 3 years. Factors associated with a poorer prognosis were a WHO score greater than 1 (p=0.031), presence of metastases (p<0.0001), non-use of CT (p=0.008) and tumor dedifferentiation (p=0.007).

Conclusions: The overall 1-year survival for all stages was 33%. It was close to that described in the literature (40%). In contrast, the

site, histological type, size and lymph node involvement did not influence survival.

PV430 / #1309

GASTRIC TRICHOBEZOAR

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Background and Aims: An eighteen years old woman with no background of interest except for trichotillomania at the age of eight, who consults for a medical chart of approximately one-year evolution of isolated vomiting unrelated to intakes, anorexia and early satiety without clear weight loss. In the physical examination, a large epigastric mass of more than 10 cm of diameter, mobile and not adhered to deep planes and well defined limits, stands out in the abdominal palpation.

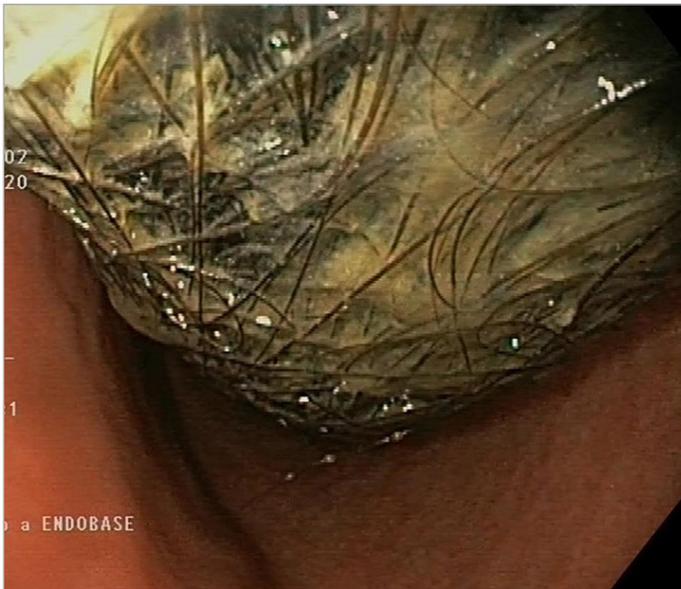
Methods: Analytical determinations do not present significant alterations of interest. It is requested computed tomography abdomino-pelvic (Figure #1309a) where it is identified a complete occupation of the gastric cavity by a mass of speckled aspect with aerial bubbles in its interior that adapts to the gastric morphology exerting mass effect on the adjacent intestinal structures, being all this compatible with bezoar.

Results: A gastroscopy is performed (Figure #1309b) through which the gastric trichobezoar is evidenced with impossibility of its extraction in that act.

Conclusions: It is valued by the service of general surgery that schedules surgical intervention for performing gastrotomy and extraction of gastric trichobezoar.



#1309 Figure A



#1309 Figure B

PV431 / #1364

BLACK ESOPHAGUS AND SEPTIC SHOCK IN ELDERLY PATIENT: A CASE REPORT

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Background and Aims: Acute esophageal necrosis, commonly known as black esophagus, is a rare syndrome characterized by a circumferential black appearance of the esophageal mucosa that almost universally affects the distal esophagus and stops at the gastroesophageal junction. The etiology is unclear but in critically ill patients a combination of factors, such as ischemic mucosal insult, corrosive injury from reflux of the gastric contents, and possibly decreased function of the mucosal barrier and reparative mechanisms, may be the basis of the condition.

Methods: We present a case of 89-year-old man who was hospitalized in a serious hypotensive state and frank signs of septic shock. After the urgent diagnostic work up the patient presented hematemesis and melena. At the subsequent upper endoscopy the mucosal of the middle and distal esophagus appeared blackish as for necrotic phenomena; the gastroesophageal junction was spared. The patient started therapy with high dose of proton pump inhibitor (PPI) and no other bleeding events occurred. Later, due to the further deterioration of the clinical conditions, the patient died.

Results: The final diagnosis of the presented case is the acute esophageal necrosis (AEN) associated with gastrointestinal bleeding and septic shock.

Conclusions: The AEN is a rare but potentially lethal condition. The pathogenesis is unclear. It must be recognized early and aggressively managed to improve clinical outcomes and thus reduce mortality associated with the underlying disease. We want

to emphasize the importance of taking into account the AEN as one of the causes of upper gastrointestinal bleeding in the context of septic shock.

PV432 / #1433

GASTROINTESTINAL MUCORMYCOSIS POST LIFE THREATENING COVID-19 INFECTION

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Background and Aims: Mucormycosis is a rare and life-threatening fungal infection that typically involves the nasal sinuses, orbit, and brain. Both surgical intervention and antifungal therapy is needed. Gastrointestinal (GI) mucormycosis is uncommon cause of GI bleeding. We present a case of lower GI bleeding due to Mucormycosis post life threatening COVID-19 infection.

Methods: 36 years old male previously healthy, had severe COVID-19 pneumonia needing mechanical ventilation. He developed cardiac arrest on 2nd day and revived after 25 minutes. He had septic and cardiogenic shock with a prolonged critical care and subsequent anoxic brain injury and tracheostomy. Also, he required 3 weeks dialysis for acute kidney injury. He received IV steroid and broad-spectrum antibiotics. Later, he was discharged to long-term facility. However, he was brought to our hospital due to severe lower GI bleeding and hypotension. He had hemorrhagic shock; acute anemia (hemoglobin 3.2 mg/l) and required ICU care for resuscitation and blood transfusion.

Results: CT abdominal angiography did not reveal any bleeding site. Upper endoscopy showed moderate gastritis without bleeding and sigmoidoscopy revealed fresh blood, with huge clots. Repeated colonoscopy showed a segment of narrowing at 70-80cm, in descending/sigmoid colon with severe segmental colitis. Pathology of biopsy consistent with ulcer, and mucormycosis. He was treated with liposomal amphotericin B IV for 2 weeks.

Conclusions: Colonic mucormycosis is a rare cause of GI bleeding post COVID-19 infection that can be managed with liposomal amphotericin B. Management of GI mucormycosis is challenging due to variable presentations, delayed diagnosis, and high mortality and morbidity.

PV433 / #1438

MANAGEMENT OF GASTROINTESTINAL BLEEDING IN COVID -19 INFECTED PATIENTS

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Background and Aims: COVID-19 infection has a variable degree of multisystem involvement. There are limited data about the

risk factors and outcomes of GI bleeding in COVID-19 infected patients. We aim to study the severity and management outcomes of GI bleeding in COVID-19 infected patients.

Methods: Ethical approval was obtained to conduct a retrospective chart review study (March-August 2020) in Tawam hospital. Adult patients who developed GI bleeding and had confirmed COVID-19 infection were included. Descriptive analysis was used for the clinical data.

Results: Seven COVID-19 infected patients were included, the mean age was 65.7 years and 71.4% were men. The comorbid conditions in our cohort were ischemic heart disease (2), atrial fibrillation (2), chronic kidney disease (2) and Von Willebrand disease (1). Three patients had severe COVID-19 infection with multi-organ failure. Mechanical ventilation was required for (n=3) patients, renal replacement therapy in (n=3), and anticoagulation used (n=5). The median interval between an episode of GI bleeding and admission were 6.7 days and majority had upper GI bleeding (85.7%). The mean drop in hemoglobin was 92 g/l. Proton pump inhibitors were administered in the form of (infusion (2) or bolus BID dose (5)). Endoscopic procedures were performed in three patients (colonoscopy (2), EGD (1)). The mean duration of hospitalization was 26.4 days and 30 days mortality rate was 14.3% (1 out of 7).

Conclusions: GI bleeding in COVID-19 infected patients were multifactorial with predominance of upper GI source. Medical therapy can be an effective approach in such patients.

PV435 / #1468

INFLAMMATORY MYOFIBROBLASTIC TUMOR OF THE BILIARY TRACT: RARE AND TRICKY TO DIAGNOSE AND MANAGE

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Case Description: A 70-year-old woman was referred to our tertiary center due to progressive fatigue, weight loss (7 kg per year), abdominal pain, heatwaves, night sweats and elevated liver enzymes. Magnetic resonance cholangiopancreatography (MRCP) revealed proximal common hepatic duct and hilar biliary strictures extending bilaterally to lobular bile ducts. Laboratory testing showed mild elevation of carbohydrate antigen (CA) 19.9 by 112.15 kU/L.

Clinical Hypothesis: Initial clinical and radiological tests were typical for hilar cholangiocarcinoma (CCA), Bismuth-Corlette IV.

Diagnostic Pathways: Endoscopic retrograde cholangiopancreatography (ERCP) with biopsies from the biliary stricture was performed along with biliary stenting. Histological examination showed no signs of malignancy. Consequently, 8 biopsies using different approaches were performed (biopsies from dominant stricture during ERCP and direct cholangioscopy;

ultrasound-guided liver biopsy; diagnostic laparoscopy with liver and lymph node biopsies). Histological examination revealed signs of the inflammatory myofibroblastic tumor (IMT).

Conclusion and Discussion: The final diagnosis of biliary IMT was made based on the histological findings. IMT is a rare, idiopathic, benign, mass forming disease with myofibroblastic proliferation and the varying amount of inflammatory cells. In our case, IMT presenting with hilar biliary strictures was a unique diagnostic challenge as the clinical presentation and imaging features were indistinguishable from those of CCA. The treatment options are based only on clinical practise experience: restenting, prednisolone, celecoxib (primary treatment); vinorelbine and methotrexate (secondary treatment). In our case, the disease took atypical malignant course. The patient poorly responded to primary treatment, CA19.9 continued to grow. However, MRCP after secondary treatment showed improving dynamics.

PV436 / #1469

WILKIE'S SYNDROME: A RARE CAUSE OF WEIGHT LOSS AND MALNUTRITION

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Case Description: Female, 38 years old. Background of Addison's disease and celiac disease (HLA DQ2+), and known Factor V Leiden mutation (heterozygosity for the mutation G1691A). No further relevant medical history. The patient resorted to Internal Medicine appointment referred by her primary care physician due to early satiety, frequent vomiting and weight loss in the last seven years. At the time of the appointment, she weighted 39 Kg. **Clinical Hypothesis:** Malignancy Malabsorption syndromes AIDS Drug abuse Eating disorders.

Diagnosis Pathways: Upper gastrointestinal endoscopy showed slight angulation of the third duodenal portion. Colonoscopy without pathological findings. MRI angiography of the gastrointestinal tract revealed a reduction of retroperitoneal fat and a reduced angle between the superior mesenteric artery and the aorta (15°), reduced calibre of the left renal vein and the third duodenal portion. The patient was hospitalized to optimize nutritional status with nasojejunal tube feeding. She gained 3Kg, with symptomatic improvement, regaining oral feeding capacity. Nine months after admission, in the follow-up consultation, the patient had gained 15 Kg. However, one year after that, she had a resurgence of the symptoms with weight loss. In the end, the patient opted for surgical treatment (duodenojejunostomy). Nowadays, the patient has iron deficiency anemia, severe deficiency of ferritin and cyanocobalamin (in treatment with intravenous iron and intramuscular cyanocobalamin).

Conclusion and Discussion: This condition is difficult to diagnose due to its rarity. Usually, its treatment is simple, based on nutritional optimization and rarely requires surgical treatment.

PV437 / #1471

AN UNUSUAL CAUSE OF CRONICAL HEPATITIS

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Case Description: Female, 52 years old. Background of eradicated gastritis induced by *H. pylori*, removed ovarian polyp, lumbar hernia. Regular treatment with metimazole. No further relevant medical history. The patient resorted to Internal Medicine appointment referred by her primary care physician due to persistent elevation of transaminases, gamma-glutamyl transferase and alkaline phosphatase.

Clinical Hypothesis: Iatrogenic hepatitis Viral hepatitis Autoimmune hepatitis Wilson's disease Alpha-1 antitrypsin deficiency

Diagnosis Pathways: The therapy with metimazole was immediately suspended to discard iatrogenic hepatitis. Serological markers of viral hepatitis (A, B, C) and HIV were negative. With regard to viral infections, it was only found past EBV and CMV infection (IgG positive). Autoimmune screening for autoimmune hepatitis was negative (ANA, SMA, anti-LKM-1, anti-LC1, anti-SLA). The imagiologic study (abdominal ultrasound and colangiography) showed hepatomegaly and suggestive signs of hepatic steatosis. Alpha-1 antitrypsin test was requested, with low levels of this protein. Subsequently, a genetic test revealed heterozygosity for the mutation p.Glu342Lys of the gene SERPINA1. Currently, the patient remains asymptomatic, with a slight increase in the hepatic parameters and maintains a regular follow-up with Internal Medicine.

Conclusion and Discussion: The alpha-1 antitrypsin deficiency in adulthood often leads to the development of chronic hepatitis, cirrhosis or hepatocellular carcinoma. Around 40% of these patients have significant liver damage and cirrhosis. There is no specific treatment, with the management of this condition being based on prevention of its evolution and controlling the complications of chronic liver disease.

PV438 / #1477

COVID-19 INFECTION COMPLICATED BY HAEMORRHAGIC COLITIS

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Case Description: COVID-19 primarily affects the respiratory system, ongoing case reports have highlighted its effects on several organs. Multiple gastrointestinal (GI) symptoms, including diarrhoea, nausea/vomiting, and abdominal pain, as well as liver enzyme abnormalities, have been consistently reported in patients with COVID-19. COVID-19 shows an intestinal tropism

and ACE2 expression on surface cells of the small intestine, which is a potential primary entrance for the virus to infect the host and provoke GI symptoms.

Clinical Hypothesis: A 77-year-old male was admitted with COVID-19 complaining of cough and dyspnoea. Background history of atrial fibrillation, obesity, hypertension, diabetes mellitus and obstructive sleep apnoea. Admission to ICU and intubation were mandated by worsening blood gases and delirium. Appropriate antibiotic therapy and steroids were commenced. His ICU period was complicated by haemodynamic instability and fast atrial fibrillation, worsening cardiac function, and acute kidney injury. On day 19, melena was observed.

Diagnostic Pathways: CT abdomen and pelvis showed large pneumoperitoneum, which appeared to be self-limiting, and unlikely to be caused by diverticular perforation. Surgical advice was sought with the decision to manage conservatively. Day 35 Melena resolved. Extubation occurred at day 44 and at time of writing, rehabilitation is ongoing.

Conclusion and Discussion: Since the emergence of COVID-19 in late 2019, there are increasing case reports of COVID-19 induced GI pathologies, affecting 3-50% of patients infected with the virus. This is the first case of haemorrhagic colitis and colonic perforation we are aware of in Ireland in a COVID-19 infected patient and represents a potential novel complication of the infection.

PV439 / #1501

PARTICULAR QUALITIES OF HEART RATE VARIABILITY IN PATIENTS WITH ARTERIAL HYPERTENSION AND NON-ALCOHOLIC FATTY LIVER DISEASE

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Background and Aims: To assess heart rate variability in patients with arterial hypertension (AH) and non-alcoholic fatty liver disease (NAFLD).

Methods: The main group included patients with AH and NAFLD (n=50, 35 (70%) women, mean age was 57.4±6.9 years), the control group - patients with isolated AH (n=41, 33(80.5%) women, mean age was 56.7±7.1 years). A comparative analysis of indicators of heart rate variability was carried out.

Results: In patients with AH and NAFLD, the activity of the parasympathetic link of autonomic regulation (RMSSD and pNN50 (p=0.0075 and p=0.0232, respectively)) was significantly lower than in patients with isolated AH. The values of the very low-frequency (p=0.0000) and low-frequency (p=0.0424) components of the spectrum were significantly higher, and the values of the high-frequency (p=0.0012) components were significantly

lower in patients of the main group. After the orthostatic test, comorbid patients have a lower SDNN level (36.0 (26.0;46.0) vs 38.0 (29.0;54.0). The orthostatic test confirms more pronounced changes in the levels of LF ($p=0.0496$), HF ($p=0.0003$) and LF/HF ($p=0.0000$) in the study group, which indicates a significant increase in the incidence of sympathicotonia in patients with AH and NAFLD.

Conclusions: In patients with AH and NAFLD, compared with patients with isolated AH, the activity of the parasympathetic link of autonomic regulation is significantly lower. When assessing the spectral analysis of heart rate variability indicators in patients of the main group, there is a shift in the system of regulation of the heart and vascular tone towards sympathicotonia, which increases after the orthostatic test, compared with patients with isolated AH.

PV440 / #1554

AN INFREQUENT CAUSE OF GASTROINTESTINAL BLOOD LOSS

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Case Description: Male, 50 years old. Background of smoking habits. Father with medical history of unspecified haematological disorder with recurrent blood transfusions. The patient resorted to the Emergency Department with an history of respiratory infection, recurrent epistaxis and weight loss of 5Kg in the last month. In physical examination it was observed buccal, lingual and auricular telangiectasias. Laboratory results showed severe decrease in hemoglobin values (8g/dl), microcytosis and hypochromia.

Clinical Hypothesis: Essential telangiectasia Scleroderma Osler-Weber-Rendu syndrome.

Diagnosis Pathways: The patient was admitted for treatment of respiratory infection with antibiotics (with clinical benefit) and to study the anemia cause. Anemia required blood transfusion and treatment with intravenous iron for severe iron deficiency. Colonoscopy showed cecum angiodysplasia with no signs of bleeding. The Osler-Weber-Rendu syndrome diagnosis was established based on the clinical criteria. After discharge, he was referred to the consultation with an upper gastrointestinal endoscopy (UGIE) request, however, the patient missed the appointment. He returned two years after admission, once again with anemia and severe iron deficiency. After this consultation, the patient underwent UGIE where angiectasis in the stomach and duodenum was observed, which were subjected to fulguration. Currently, the patient is followed up by Internal Medicine to monitor hemoglobin and serum iron values and, when necessary, is treated with intravenous iron.

Conclusion and Discussion: Osler-Weber-Rendu syndrome is a rare autosomal dominant disorder, with variable clinical

manifestation, which must be taken into account as it can be fatal, especially when there are pulmonary, cerebral or hepatic arteriovenous malformations.

PV441 / #1568

NONALCOHOLIC FATTY LIVER DISEASE IN RHEUMATOID ARTHRITIS PATIENTS

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Background and Aims: Prevalence of NAFLD in the general population is 10-36%. Etiology is complex, includes components of the metabolic syndrome and diabetes mellitus. The influence of rheumatoid arthritis (RA)-related factors such as disease activity and therapy has yet to be determined. Aim: to determine the percentage of patients with NAFLD and the differences between patients with and without NAFLD in a cross-sectional study.

Methods: 72 consecutive patients aged 25-70 years from 2016-2019 were included. Exclusion criteria were alcohol consumption, viral hepatitis, chemotherapy, thyroid disease, NSAID use, autoimmune liver disease, incomplete data. Baseline characteristics included demographic and clinical findings (laboratory, metabolic syndrome), liver stiffness measurement (LSM) and controlled attenuation parameter (CAP) by FibroScan, NAFLD fibrosis score and FIB-4, disease activity and duration, therapy, diabetes, liver biopsy.

Results: of 72 participants (60 F), average age 59,5(27-70), RF and ACPA positive (44/51), average BMI 28 kg/m² (19-41), treated with Methotrexate (48), biologics (31), TNF α inhibitors 15, IL-6 18, glucocorticoids 42, NAFLD was found in 49 patients (13 grade I, 8 grade 2, 28 grade 3). Diabetes had 19 patients. CAP had moderately positive correlation with weight, BMI, waist (WC) and hip circumference (HC), ferritine, AST, ALT, thrombocytes, glucose, mild correlation with disease activity DAS28CRP. When comparing patients with NAFLD and normal we found significant difference in CAP ($z=6.6$, $p=0.00001$), BMI ($z=3.4$, $p=0.00062$), WC ($z=3.03$, $p=0.0009$), HC ($z=2.68$, $p=0.007$), ALT ($z=3.72$, $p=0.0002$), ferritine ($z=2.67$, $p=0.00758$). There was no difference between MTX and biologics.

Conclusions: NAFLD in RA correlates with components described in other diseases.

PV442 / #1577

COMPARATIVE EFFICACY AND SAFETY OF ANTI-GLYCEMIC DRUGS FOR NON-ALCOHOLIC FATTY LIVER DISEASE-A META ANALYSIS

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Background and Aims: Since Insulin resistance is a key pathogenic driver of NASH and as evidence of a bidirectional causative link of NAFLD and DM is growing, many anti-diabetic drugs like GLP-1 analogues, thiazolidinediones, biguanides are being evaluated.

Methods: Electronic databases (Medline, Scopus, Embase) were searched from inception until 25th November 2020. Using dichotomous and continuous data for select values, the weighted mean differences and unadjusted odds ratio (OR) were calculated applying Mantel Haenszel (M-H) random-effects model. The primary outcome was improvement in biochemical parameters, advanced fibrosis, NASH resolution and adverse effects for each class of anti-diabetic drugs.

Results: A total of 11 studies were included. Thiazolidines was associated with significant reductions in alanine aminotransferase (ALT) levels (WMD: -14.46, 95%CI [-20.32, -8.59]; $p < 0.00001$; $I^2 = 0\%$) & aspartate aminotransferase (AST) levels (WMD: -12.10, 95%CI [-21.04, -3.17]; $p = 0.008$; $I^2 = 0\%$). Biguanides was associated with significant reductions in AST levels (WMD: -7.45, 95%CI [-13.65, -1.25]; $p = 0.02$; $I^2 = 0\%$). Thiazolidines was associated with significant improvement of fibrosis (OR 1.66 95%CI 1.10-2.52 $p = 0.02$; $I^2 = 0\%$) Both GLP-1 Agonists (OR 6.99; 95%CI, 3.59-13.73; $p < 0.0001$; $I^2 = 0\%$) and thiazolidines (OR 3.06; 95%CI 1.82-5.15; $p < 0.0001$; $I^2 = 0\%$) were associated with significant NASH resolution. However, GLP-1 agonists were associated with adverse events (OR:3.57 95%CI [2.84-4.48] $p < 0.00001$; $I^2 = 0\%$)

Conclusions: Anti-glycemic medication are a good candidate for the treatment of NAFLD. Among the class of anti-diabetic drugs, Thiazolidinedione presents superiority when compared to GLP-1 analogues for resolution of NASH and improvement of Fibrosis. GLP-1 Analogues and biguanides have also been shown promising evidence, although it is still early to consider them.

PV443 / #1588

ATYPICAL CONSTITUTIONAL SYNDROME

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Case Description: A 69 year-old man presented to the ER for intermittent abdominal pain in the last 3 days. He had several similar episodes in the last 7 months associated with intestinal transit changes, anorexia and weight loss of 18 kg (20% of his weight). Physical examination revealed caquexia and right quadrants abdominal pain. Blood samples were unremarkable and abdominal radiography showed no hydro-air levels. The high digestive endoscopy revealed no alterations. The colonoscopy described an intramural lesion at the proximal ascending colon. After six days of hospitalization he presented clinical and analytical worsening with intense abdominal pain, vomiting and increased inflammatory parameters. Abdominal CT described marked distension of the small intestine, a parietal thickening with 45x35mm in the ileocecal region, moderate peritoneal effusion and an abscessed collection of 12 cm. The main hypothesis was an occlusive neoplastic lesion. A laparotomy was performed revealing a chronic appendicitis complicated by acute appendicitis with perforation and peritonitis. A PET was performed showing no hypermetabolic changes suggestive of neoplasia.

Clinical Hypothesis: Abdominal pain is a very frequent symptom. Infectious and inflammatory causes are the most frequent, however, when associated with weight loss or other constitutional signs/symptoms, the neoplastic etiology should be excluded.

Diagnostic Pathway: Neoplastic etiology was the main hypothesis in this case, which was ruled out only after an extensive complementary investigation.

Conclusion and Discussion: Chronic appendicitis is rare and remains controversial and difficult to diagnose. Patient's chronic inflammation may have aggravated the constitutional syndrome which, being frequent in cancer patients, led to a wrong main diagnostic hypothesis.

PV444 / #1637

OLMESARTAN ASSOCIATED ENTEROPATHY: AN UNDERDIAGNOSED CAUSE OF DIARRHEA

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Background and Aims: Olmesartan medoxomil has been approved for the treatment of hypertension since 2002. The most common reported adverse effects of this agent include headache, flu-like symptoms, and dizziness. In 2012, a Mayo Clinic study described a sprue-like enteropathy associated with olmesartan treatment, which resolved with discontinuation of the medication. This led to a safety warning issued by the Food and Drug Administration (FDA) in 2013. Ever since, there have been only a few case reports of this adverse effect.

Methods: A 59-year-old caucasian female was admitted due to diarrhea, abdominal pain and episodes of postprandial vomiting following the recent initiation of antihypertensive treatment with olmesartan

Results: extensive work-up for chronic diarrhea was unrevealing while antibody testing for tissue transglutaminase antibodies was negative (1.3 IU/mL kFt 15 IU/ml). Duodenal biopsies revealed however lymphocytic gastritis and duodenitis with villous blunting. Symptoms improved with discontinuation of olmesartan. Follow up gastroscopy after 4 weeks with the biopsies revealed normalization of small intestinal mucosa while symptoms were fully resolved.

Conclusions: Clinicians must be aware of the possibility of this rare association between olmesartan and seronegative sprue-like enteropathy especially in patients that have recently started treatment with this drug.

PV445 / #1673

LONG-TERM OBSERVATION OF NEGATIVE COLON CAPSULE ENDOSCOPY FOR COLON CANCER SCREENING IN A JAPANESE POPULATION

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Background and Aims: Although the guideline recommends that patients with no significant findings at the initial colon capsule endoscopy (CCE) should repeat CCE every five years or follow-up with another screening test, there is limited evidence in real clinical practice. Hence, we investigated the outcomes of follow-up Japanese patients without polyp and cancer lesions at the initial CCE.

Methods: 31 consecutive Japanese patients with a negative polyp-cancer lesion on initial colon capsule endoscopy were analysed.

Results: The mean observation period was 3.1±1.5 years (0.3 to 5.5 years). The follow-up methods were faecal occult blood test in 7 patients, colonoscopy (CS) in 20 patients, and CCE in 4 patients. The faecal occult blood test was negative in both cases, and polyps were found in 4 cases in CS (Two in ascending colon, 1 in the transverse colon, 1 in descending colon, 2 mm to 8 mm in size, all shapes and colours were sessile and pale, and one subjects had hyperplasia, and the three subjects had adenomas: low to mild, but no cancer lesions). No polyp or cancer lesions were observed in all patients, which was followed by CCE. No deaths due to colorectal cancer were observed in all patients during follow-up. No severe adverse events were observed in all patients.

Conclusions: No high-grade adenoma, cancer, or death was observed in the 5-year follow-up of patients with a negative CCE in a Japanese population.

PV447 / #1715

OLMESARTAN-INDUCED ENTEROPATHY

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Case Description: Seventy year-old man, with arterial hypertension, dyslipidemia, hyperuricemia, peripheral arterial disease, recent cholecystectomy and perforated peptic ulcer, and infrarenal abdominal aortic aneurysm corrected in 2017. Usually medicated with olmesartan + hydrochlorothiazide, lercanidipine, atorvastatin and acetylsalicylic acid. Multiple admissions in the previous year for chronic diarrhea without etiology. New admission for 5 daily diarrheal dejections without blood or mucus, fever, vomiting or abdominal pain. Objectively: dehydrated, hypotensive, pre-tibial edema and positive Trousseau sign. Analysis: normocytic normochromic (NN) anemia (Hb 11.6 g/dL), hypokalaemia (1.9 mmol/L), hypomagnesemia (1.0 mg/dL), hypocalcaemia (3.0 mEq/L) and hypophosphatemia (1.9 mg/dL); metabolic alkalosis with alkalemia (pH 7.60; HCO₃ 36.3 mmol/L) and hyperlactacidemia (3.2 mmol/L).

Clinical Hypothesis: Enteroenteric fistula due to previous surgical interventions, celiac disease, inflammatory bowel disease and diarrhea caused by drugs were considered.

Diagnostic Pathways: He had reduced levels of vitamins (deficit of vitamin K and vitamin D), triglycerides and cholesterol, proteins

(transferrin and albumin) and NN anemia with low reticulocytes and folic acid. No changes in immunoglobulins, thyroid function, parathormone or all endocrinological study were found. Computed tomographic (CT) enterography revealed no fistula. Intraepithelial lymphocytosis was observed in the duodenum without other major changes in endoscopic studies. The infectious study was negative.

Conclusion and Discussion: He had protein caloric malnutrition with a condition compatible with malabsorption syndrome. Due to extensive analytical and endoscopic analysis with no identifiable cause, the most likely hypothesis, considering the findings in the histological tests, is olmesartan-induced enteropathy. Improvement was reported after olmesartan suspension.

PV448 / #1719

PREVALENCE OF GERD IN DIABETIC PATIENTS IN SAUDI ARABIA

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Background and Aims: To investigate the prevalence of gastroesophageal reflux disease (GERD) in diabetic patients and its association with diabetic complications and clinical characteristics.

Methods: This cross-sectional study was conducted on 403 self-reported diabetic patients attending King Khalid University Hospital outpatient clinics. During an interview, the GERD questionnaire was used as the diagnostic tool for GERD.

Results: 181/403 (44.9%) subjects had GERD (Table #1719a). GERD was significantly associated with neuropathy and nephropathy, while myocardial infarction was more prevalent in non-GERD patients (Table #1719b). On multivariate analysis, age >65 (p=0.007) and female gender (p=0.013) were the only independent risk factors.

Conclusions: Physicians caring for diabetic patients should pay careful attention to diagnosing and managing symptomatic GERD. The prevalence reaches up to 45%. Female gender and older age are the greatest contributing factors. Diabetic complications and other clinical factors were similar between GERD and non-GERD patients.

	GERD (n=181)	non-GERD (n=222)	P-value
Female	139 (77%)	138 (62%)	<0.001*
Male	42 (23%)	84 (38%)	
Age	55.27±11.93	52.43±15.32	0.038*
BMI	32.04±6.60	30.20±6.60	0.006*
Smoker	3 (1.7%)	16 (7.2%)	
Non-smoker/ ex-smoker	178 (98%)	206 (93%)	0.007*

#1719 Table A: Sociodemographic characteristics

	GERD (n=181)	non-GERD (n=222)	P-value
Diabetes duration (years):			0.795
<5	47 (26%)	56 (25%)	
5-9	36 (20%)	42 (19%)	
10-14	33 (18%)	39 (18%)	
15-19	26 (14%)	26 (12%)	
≥20	39 (22%)	59 (27%)	
Therapy:			
Exercise	44 (24%)	61 (28%)	0.471
Diet	75 (41%)	86 (39%)	0.582
Oral hypoglycemics	146 (81%)	162 (73%)	0.070
Insulin	79 (44%)	110 (50%)	0.238
Diabetic complications:			
Peripheral numbness	125 (69%)	129 (58%)	0.023*
Hypertension	89 (49%)	97 (44%)	0.273
Nephropathy	22 (12%)	14 (6%)	0.041*
Albuminuria/ proteinuria	20 (11%)	31 (14%)	0.231
Amputation	3 (2%)	1 (0.5%)	0.239
Stroke	5 (3%)	3 (1%)	0.257
Coronary artery disease	23 (13%)	19 (9%)	0.175
Myocardial infarction	4 (2%)	14 (6%)	0.038*
Retinopathy	50 (28%)	63 (28%)	0.867

#1719 Table B: Clinical profile

PV449 / #1736

FECAL MICROBIOTA TRANSPLANTATION (FMT) FOR CORTICOSTEROIDS (CS) NON-RESPONDERS AND NON-ELIGIBLE (NORENE) PATIENTS WITH SEVERE ALCOHOLIC HEPATITIS (SAH)

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Background and Aims: Severe alcoholic hepatitis is one of the most serious forms of alcohol associated liver disease (ALD) with high mortality. The only recommended treatment option – CS, show modest short -, and none long-term survival benefit. We aimed to evaluate the impact of FMT on survival in NoReNE patients with SAH as determined by Lille-model.

Methods: From 1/2018 to 12/2020, we performed FMT in 23 SAH patients and recorded demographic, clinical and laboratory parameters before and after FMT. We used frozen faecal material from unrelated donors, delivered via upper GI tract in ITT dose 100ml over 5 days.

Results: We analyzed 23 patients (9 women) with mean age, MELD-Na score, and Maddrey function of 46, 29, and 72.5

respectively. Sixteen had acute-on-chronic liver failure (ACLF), 18 were NoRe, and 5 NE for full course CS. Observed 30-, and 90-day mortality was 26%, and 61%, respectively; in literature, these figures are 20-35%, and 75%, respectively.

Conclusions: SAH in CS non-responders/-eligibles is associated with high mortality, especially with ACLF. FMT offers alternative treatment option but we haven't documented clear survival benefit. We need larger, deeper and more granular analysis to determine, which patient's characteristics predict survival benefit.



AS08. GERIATRICS AND MULTIMORBIDITY

PV450 / #75

CORRELATION OF ATRIAL NATRIURETIC PEPTIDE AND DAS28 IN PATIENTS WITH CHRONIC HEART FAILURE AND RHEUMATOID ARTHRITIS

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Background and Aims: Evaluation of associations of myocardial morphofunctional parameters with inflammation in patients with chronic heart failure on the background of rheumatoid arthritis (RA).

Methods: The study group consisted of 134 patients with CHF on the background of RA, and the comparison group – 122 patients with CHF without RA. Functional class of CHF patients who participated in the NYHA I-II study.

The diagnosis of RA was made on the basis of x-ray and serological studies, which included the determination of rheumatoid factor (RF), antibodies to cyclic citrullinated peptide (ACCP), and C-reactive protein (CRP). The activity of the inflammatory process was evaluated using the DAS28 index and the visual analog pain scale (VAS). Drugs for the treatment of CHF in the groups were compared. The basic anti-inflammatory drug for the treatment of RA is methotrexate. Hematological, biochemical, and instrumental studies were performed. The processing was performed using the program STATISTICA 10.0; the paper presents statistically significant results. The critical significance level for testing statistical hypotheses is $p < 0.05$.

Results: The concentrations of NT-proBNP in the study groups differed significantly: in the group of patients with CHF on the background of RA, the level was 306.7 (225;391) PG/ml; in the group of CHF without RA - 488.7 (355; 638) ($p=0.02$). A direct association of the DAS28 index and NT-proBNP was found ($r=0.04$; $p=0.02$).

Conclusions: The increase in the activity of inflammation in patients with CHF on the background of RA should be taken into account in the treatment of patients with this association.

PV451 / #80

RETROSPECTIVE OBSERVATIONAL STUDY ON INCIDENCE OF BLEEDING IN TRAUMATIC HIP FRACTURE PATIENTS ON THERAPEUTIC DOSE OF DIRECT ORAL ANTICOAGULANT DURING 35 DAYS POST-OPERATIVE PERIOD

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Background and Aims: Post-operative deep vein thrombosis (DVT) and pulmonary embolism (PE) are common amongst hip fracture patients secondary to immobility with an incidence of 9-12.7%. Prophylaxis with low molecular weight heparin injection (LMWH) is recommended for 28-35 days post-operative. At present, this is not feasible in the Irish community setting. A more feasible method to provide thromboprophylaxis at home is via Direct Oral Anticoagulant (DOAC) use. This is the practice for elective hip surgery, however there is no data examining the safety of DOACs for DVT/PE prophylaxis following surgery for traumatic hip fractures. This study aims to investigate the safety of DOAC use in traumatic hip fracture patients for potential use in the prevention of DVT/PE in the post-operative period.

Methods: Retrospective observational study of ortho-geriatric patients taking DOAC pre-admission with traumatic hip fracture and who were discharged on DOAC post-surgery was undertaken. Major bleeding events in the initial post-operative period (35 days) was deemed the primary outcome, with major bleeding events defined as those that were fatal, intracranial, required hospital admission or led to significant disability.

Results: 46 patients met the inclusion criteria of DOAC use pre-admission with traumatic hip fracture and subsequent discharge home on same. No patient from this cohort suffered a major bleeding event within the post-operative period.

Conclusions: No patient within the cohort suffered a major bleeding event during the post-operative period. This supports the theory that DOAC could be used safely for DVT/PE prophylaxis in patients with traumatic hip fractures. A clinical trial is required for further evaluation.

PV452 / #185

ELDERLY ONSET OF ADULT STILL'S DISEASE

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Background and Aims: Adult onset Still's disease (AOSD) is a rare inflammatory disorder of unknown etiology that usually affects young adults.

Methods: We report 3 cases of elderly patients with AOSD diagnosed according to the Yamaguchi criteria.

Results: *Case 1:* A 61-year-old woman presented with a fever for 1 month, maculopapular rash and polyarthralgia. The white blood cell (WBC) count was 14.500cells/mm³. There were hepatic cytolysis and cholestasis. The serum ferritin was ≥2000ng/ml. Computed tomography showed diffuse pulmonary nodules, deep lymph nodes, splenomegaly and hepatomegaly. Histopathology of the liver biopsy found periportal nonspecific inflammation. Joints radiography was normal. The evolution was polycyclic. Corticosteroids 1mg/kg/day then methotrexate were prescribed with good outcomes over a 3-year follow-up.

Case 2: A 68-year-old woman presented for 6 weeks a deterioration of the general state, fever, maculopapular rash and odynophagia. The WBC count was 14.600cells/mm³. The serum ferritin was 11.420ng/ml. Computed tomography showed diffuse interstitial lung infiltrates. The corticosteroids at 0.5mg/kg/day were initiated with good outcomes over a 2-year follow-up.

Case 3: A 70-year-old man, with a history of colonic adenocarcinoma treated one year ago, presented a fever for 6 weeks, deterioration of general state, weight loss and myalgia. The WBC count was 17,800cells/mm³. The serum ferritin was 1000 ng/ml. The cardiac ultrasound was normal. Computed tomography showed diffuse interstitial lung infiltrates. The colonoscopy was normal. Doppler ultrasound and biopsy of the temporal artery were normal. The bone marrow biopsy was normal. Corticosteroid therapy at 1mg/kg/day was prescribed. The evolution was favorable.

Conclusions: AOSD should not be overlooked in elderly patients. Methotrexate was useful for controlling the disease and for steroid-sparing treatment.

PV455 / #282

LOOKING INTO THE BRAIN FOR TIA PATIENTS: AN AUDIT OF BRAIN IMAGING USING NICE 2020 GUIDELINES.

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Background and Aims: CT brain imaging is customary in clinical practice after Transient Ischemic Attack (TIA). NICE (2020) guidelines recommend MRI brain with diffusion weighted and

blood-sensitive sequences; to be completed on the same day as the assessment. The purpose is to detect the ischemic territory, haemorrhage or other pathology. The aim of this audit was to assess the diagnostic radiology investigations performed on patients presenting with TIA to a university teaching hospital.

Methods: We conducted a retrospective audit of all patients coded as TIA on the Hospital Inpatient-Enquiry (HIPE) system between July 2019 to July 2020. Data on brain imaging was accessed using the National Integrated Medical Imaging System (NIMIS) system. Hospital attendance records were accessed via the Emergency Department patient database. Data was analysed using Microsoft Excel.

Results: 106 patients had brain imaging performed (n=50 CT brain only; n=7 MRI only; n=49 CT and MRI). of these patients, only 8 had an MRI brain completed within 24 hours and 49 patients having MRI scans >24 hours. The median time to MRI brain was two days and six hours.

Conclusions: This audit confirms duplication of TIA brain imaging and CT as the primary imaging tool for TIA which is not in keeping with best practice (NICE, 2020). This has implications for resources, radiation exposure and length of stay. Development of dedicated ambulatory care pathways for TIA must incorporate rapid MRI access as the primary imaging modality.

NICE Guidelines 2019, "Stroke and transient ischaemic attack in over 16s: diagnosis and initial management". <https://www.nice.org.uk/guidance/ng128/resources/stroke-and-transient-ischaemic-attack-in-over-16s-diagnosis-and-initial-management-pdf-66141665603269>. Accessed 19/09/2020

PV457 / #303

OSTEOPOROSIS PREVENTION IN AN ORTHOGERIATRIC UNIT

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Background and Aims: Osteoporosis is a common disorder of the older patient that increases the risk of fracture, a major cause of disability. Common factors contributing to osteoporosis

are inadequate calcium intake and vitamin D deficiency. Our objective was to determine the percentage of patients admitted to our Orthogeriatric Unit (OGU) with proximal femur fracture with vitamin D and/or calcium deficiency and the percentage of patients prescribed osteoporosis preventing drugs (OPD) at discharge.

Methods: Retrospective study of patients discharged from the OGU during a 2-year period through electronic clinical record analysis. We examined the patients' vitamin D and calcium levels at admission (cut-off 75nm/L – vitamin D insufficiency, 50nm/L – vitamin D deficiency and 8.8mg/dL – calcium deficiency), and analyzed the discharge reports to determine the percentage of patients prescribed OPD.

Results: We included 384 patients, 68.92% women, average age 84-years-old, Barthel score 81.29, Lawton score 4.01, Global deterioration scale 3.10, "Cumulative Illness Rating Scale-Geriatric" 8.9. 17.7% of patients had vitamin D insufficiency while 76.3% had deficiency. 37.2% had deficit of calcium and 34.6% of patients had both vitamin D and calcium below normal levels. 91.2% of patients were discharged with OPD, the most common prescriptions were cholecalciferol and calcium carbonate combined (58.0%); cholecalciferol, calcium carbonate and alendronic acid (23.1%) and cholecalciferol alone (10.9%).

Conclusions: An important percentage of patients had vitamin D and calcium deficit, as is common in this population. Most patients were discharged with OPD, thus reducing the risk of osteoporosis and future fractures that have a profound impact on quality of life.

PV459 / #456

PREVALENCE OF ENDURING POWER OF ATTORNEY AMONG FRAIL, OLDER PATIENTS

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Background and Aims: Enduring Power of Attorney(EPA) is a legal document allowing nomination of a person to make decisions on another's behalf in the event of a loss of capacity. EPAs are common in patients with life limiting disease such as cancer but uncommon amongst the older frail population. Usual barriers are educational, socio-economic, intra-familial, and medical. The purpose of this study is to determine if there is an association between absence of EPA and factors associated with frailty.

Methods: Patients assessed between October 2019 and September 2020 had their data entered into an Excel database by a trained administrator. Age, gender, clinical frailty score(CFS), preferred contact, AD8 score, Barthel index, continence and EPA were recorded. Comparison between those with and without EPA were made using Student's T-test. Data was collected as part of routine clinical practice. No ethical approval was required. The study was GDPR compliant.

Results: of 502 patients assessed, 131 were not asked about EPA by the assessor as it was inappropriate at the time of assessment.

of the remainder, 9%(n=32) reported having an EPA. There was no significant difference between the EPA and non-EPA groups according to age, gender, CFS, gender of preferred contact, AD8 score, Barthel index or continence

Conclusions: EPAs remain uncommon among frail older persons, despite being a high-risk group for life limiting disease. We were unable to demonstrate an association between EPA and frailty associated variables. The assessment will be amended to highlight patients with life limiting disease. The aim to ensure 90% + of these patients have EPA discussed.

PV460 / #459

HOLTER MONITORING AND ATRIAL FIBRILLATION DETECTION IN POST-STROKE PATIENTS: A CLINICAL AUDIT AT A UNIVERSITY TEACHING HOSPITAL.

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Background and Aims: Stroke is a leading cause of death and disability worldwide and approximately 10,000 people have a stroke related event every year in Ireland. However, a substantial number of patients with stroke have asymptomatic AF. Thus, the NICE recommend that a 24-hour Holter monitor/24-hour ECG monitor be used to detect AF. Aims: Identify the number of patients with a background history of AF prior to stroke and audit if a Holter monitor was performed on all stroke patients without a background of AF.

Methods: A search for all patients who had a stroke between January 2018 and December 2018 in Portiuncula hospital was conducted. of these 17 patients, 4 patients had a background history of AF prior to their stroke. Abiding by the RCP NICE accredited guidelines 2016, the 13 remaining patients with no background history of AF, should have had Holter monitors performed to assess for undiagnosed AF.

Results: 41% of the patients were above the ages of 71 years. 24% of all stroke patients had a background history of AF prior to their stroke. All patients with no background history of AF had Holter monitors performed.

Conclusions: Stroke patients who have no background of AF and no known cause for their stroke, should have a Holter monitor performed. In this Audit, 100% of patients with no background of AF and no known cause for their stroke, had Holter monitors performed. This illustrates that the hospital is abiding by the NICE guidelines and their standards are exemplary.

PV462 / #496

STEPS TOWARDS TAILORING A PRIORITISATION PHARMACY TOOLKIT FOR THE FRAIL OLDER PERSON

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Background and Aims: A 4 item prioritisation pharmacy toolkit has been shown to direct appropriate pharmacy referrals. The items are P1 high-risk medication/greater than 10 medications, P2 specific pharmaceutical concerns P3 acute/chronic kidney injury and P4 medication related admission or non-mechanical falls. To streamline the toolkit to ensure those with highest risk of medication-related safety issues are identified and reviewed.

Methods: Consecutive patients underwent standardised frailty assessments. Age, gender, vision, hearing, swallow and clinical frailty scores (CFS) were recorded in Excel. Paper record data was manually updated to include the pharmacy priority group from June to September 2020 and analysed using descriptive statistics.

Results: of 99 patients, the male:female ratio was 1:1.2 with a mean (SD) age of 82 (6.6) years. 45% and 27% had vision and hearing impairment. 45% failed the swallow screen, 49% lived alone. The average CFS was 5.5±1.29; 47% and 26% had scores suggesting dementia and delirium. 76% of referrals were for P1, 3% for P2, 20% for P3 and 32% for P4.

Conclusions: As P1 accounts for most referrals, eliminating PRN medications will further refine that category. Creating subdivisions of high-risk medications and medication with anti-cholinergic burden will improve efficacy. Further study is required to understand P2's unexpectedly low number of referrals, given the degree of frailty, sensory and swallow abnormalities in this cohort. P3 will be removed as this is usually addressed by primary teams, with specific guidelines readily available. Next steps include trialling the streamlined toolkit and assessing efficacy and reliability in different clinical settings.

PV463 / #536

ACDC (ACCELERATED COMMUNITY DISCHARGE CARE PLAN) ROCK THE WORLD AGAIN: A NEW INITIATIVE FOR HIP FRACTURE PATIENTS

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Background and Aims: Following national recommendations the Orthogeriatric department established a new initiative to improve hip fracture care in our institution. Suitable patients were identified for intensive inpatient care and accelerated home discharge.

Methods: We conducted a retrospective study comparing all patients treated for a hip fracture at our institution between two timeframes; December 29th 2019 – June 29th 2020 and December

29th 2018 – June 29th 2019. Data was extracted from the Irish Hip Fracture Database and the UHL electronic patient administration system. Three groups were compared for analysis. Group 1 availed of the ACDC initiative. They were compared to patients who would have met the inclusion criteria from the previous year (Group 2) and patients who met the inclusion criteria but either lived outside the designated catchment area or refused to partake in the initiative (Group 3).

Results: A total of 141 patients were included. Group 1 (N=32), Group 2 (N=76) and Group 3 (N=33). Demographic characteristics from all groups was comparable. A trend towards increased home discharge was noted in the ACDC cohort (78.1%), however this was not significant (p=0.052). The intervention group had the shortest mean LOS. Improvements in four of the six Irish Hip Fracture Standards were also noted in our intervention group. Access to Orthogeriatric care and a formal falls assessment were statistically significant (p<0.001).

Conclusions: The introduction of the ACDC initiative has demonstrated promising improvements in clinical outcomes for our patients. Enhanced rates of home discharge and positive feedback has resulted in the provision of further funds to both extend and expand the project.

PV464 / #686

VERY OLD PATIENTS AFFECTED BY ERYSIPELAS AND NON-PURULENT CELLULITIS ADMITTED TO THE INTERNAL MEDICINE WARD

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Background and Aims: Skin infections are found among the causes of admission in the Internal Medicine ward. Several characteristics, such as comorbidity combination and frailty, differentiate very old patients from the remaining, in other pathologies. This study aims to identify distinctive characteristics of erysipelas and non-purulent cellulitis affecting very old patients who required hospitalization, in terms of clinical presentation, risk factors, etiology and clinical course.

Methods: A retrospective observational study included all admissions in an Internal Medicine ward motivated by erysipelas or non-purulent cellulitis from January 2012 to December 2018. Data concerning demographic status, comorbidity, risk factors, clinical presentation, in-hospital evolution and outcomes was obtained using institution's software. Patients aging 75 or more years were compared to remaining patients. A regression analysis assessed the association between being 75 year or older and the outcomes. Statistical significance was assumed when p < 0.050.

Results: The inclusion criteria were met by 462 patients. Mean age was 65.8 years (standard-deviation [SD] 17.0). Two hundred (43.3%) were male. The length of hospital stay was 9.3 (SD 6.3)

days. Fifteen patients died in the hospital (3.2%). There were 176 patients aging 75 or more years. Hospital pneumonia (4.0% versus 1.0% $p=0.035$) and pulmonary embolism (1.7% versus 0.0% $p=0.026$) occurred more often in the old patients group. Mortality was higher in this group (6.8% versus 1.0% $p=0.002$).

Conclusions: Those admitted for erysipelas or non-purulent cellulitis aged 75 or more years were more susceptible to in-hospital complication such as pulmonary embolism or pneumonia, and had a worst prognosis.

PV465 / #737

RESULTS OF THE “GER-E-TEC” EXPERIMENT INVOLVING THE USE OF AN AUTOMATED PLATFORM TO DETECT THE EXACERBATION OF GERIATRIC SYNDROMES

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Background and Aims: The basis for the “GER-e-TEC study” was about an experiment involving the use of the smart MyPredi™ e-platform to automatically detect the exacerbation of geriatric syndromes.

Methods: An experiment was conducted between 24 September 2019 and 24 November 2019 to test this alert system. The platform was used on patients being monitored in an internal medicine unit at the University Hospital of Strasbourg.

Results: A total of 36 patients were monitored remotely, 21 were male. The mean age was 81.4 years. The patients used the telemedicine solution for an average of 22.1 days. The telemedicine solution took a total of 147,703 measurements while monitoring the geriatric risks of the entire patient group. An average of 226 measurements were taken per patient per day. The telemedicine solution generated a total of 1611 alerts while assessing the geriatric risks of the entire patient group. For each geriatric risk, an average of 45 alerts were emitted per patient, with 16 of these alerts classified as “low”, 12 as “medium”, and 20 as “critical”. In terms of sensitivity, the results were 100% for all geriatric risks and extremely satisfactory in terms of positive and negative predictive values. In terms of survival analysis, the number of alerts had an impact on the duration of hospitalization due to decompensated heart failure, a deterioration in the general condition, and other reasons.

Conclusions: The MyPredi™ telemedicine system allows for the generation of automatic, non-intrusive alerts when the health of a patient deteriorates due to risks associated with geriatric syndromes.

PV466 / #739

CREATION OF A NEW FRAILTY SCALE IN PRIMARY CARE: THE ZULFIQAR FRAILTY SCALE

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Background and Aims: Evaluate the ability of the “Zulfqar frailty scale” (ZFS) tool to detect frailty as defined by Fried’s criteria among a group of patients aged 75 and older.

Methods: Prospective study conducted in Poitou-Charentes (France) for 12 months on patients aged 75 and over and considered autonomous in terms of the ADL scale.

Results: Among the group of 200 patients (with a mean age of 81.4 years), the prevalence of frailty according to Fried’s criteria was 32.5%. The prevalence of frailty according to the “Zulfqar frailty scale” tool was 35% and all items except home confinement were significantly associated with frailty. With this tool, the threshold for identifying frailty was 3 out of 6 criteria. It was quick (average completion time of 2 minutes and 2 seconds) with a sensitivity score of 88.0% and a negative predictive value of 91%.

Conclusions: The “Zulfqar frailty scale” measures frailty just as effectively as Fried’s criteria, with sensitivity and negative predictive values no lower than the latter.

Is there a weight loss greater than or equal to 5% in 6 months?	Yes	No
Monopod support test <5 seconds?	Yes	No
Does the person live alone at home?	Yes	No
Are there home caregivers?	Yes	No
Does the person complain of memory problems?	Yes	No
Does the person have prescriptions for more than 5 therapeutic classes on his/her prescription history for less than 6 months?	Yes	No

Scores of 3 or more= “frail” Scores of 1 or 2= “pre-frail” Score of 0= “non-frail”

#739 Table: Zulfqar Frailty Scale (ZFS)

PV467 / #853

COMPREHENSIVE GERIATRIC ASSESSMENT: MUSCLE ULTRASOUND AS IMAGING DOMAIN OF FRAILITY

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Background and Aims: Frailty is a geriatric syndrome constituting the most complex expression of population ageing. Muscle Ultrasound (MUS) has been employed to evaluate muscle mass wasting as tool to assess sarcopenia in the elderly. Due to its multidimensional nature, Comprehensive Geriatric Assessment (CGA) represents a valid and reliable method to evaluate frailty in older patients. Accumulation of deficits model allows to synthesize in the Frailty Index (FI) score the global assessment of geriatric domains. The aim of the present study was to examine the association between CGA-based FI and MUS measures in a population of hospitalized elderly.

Methods: Hospitalized patients aged ≥ 65 years underwent CGA, with evaluation of the domains of health and functional status, psycho-cognition, socio-environmental condition. A CGA-based FI was created following standard procedure, taking into account a total of 40 multidimensional deficits. MUS muscle thicknesses (MT) of rectus femoris plus vastus intermedius muscles was measured through axial cross-section (Figure #853). Multivariate regression analysis was used to identify factors associated with FI.

Results: The study population consisted of 79 elderly patients, 51 males (64.6%), with mean age of 76.53 ± 6.83 years and mean



#853 Figure: Representative image of MUS. Muscle thickness was defined as the distance between the anterior fascia of the rectus femoris muscle and posterior fascia of vastus intermedius muscle in the axial image.

MT, muscle thickness; RF, rectus femoris; SF, subcutaneous fat; VI vastus intermedius

Characteristics	Overall Population (n=79)	Frail FI ≥ 0.25 (n=56)	Non Frail FI < 0.25 (n=23)	Sig. $p < 0.05^*$
Age (years), \pm SD	76.53 \pm 6.83	77.64 \pm 6.65	73.83 \pm 6.62	0.025*
Gender (male) n (%)	51 (64.6)	33 (58.9)	18 (78.9)	0.126
BMI (Kg/m ²), \pm SD	25.65 \pm 4.58	25.57 \pm 5.11	25.83 \pm 3.02	0.826
Haemoglobin (g/dL), \pm SD	11.91 \pm 2.47	11.62 \pm 2.19	12.60 \pm 2.97	0.16
eGFR (mL/mm/1.73m ²), \pm SD	61.48 \pm 23.01	58.56 \pm 23.28	68.56 \pm 21.19	0.108
Serum protein (g/dL), \pm SD	6.46 \pm 0.75	6.43 \pm 0.78	6.52 \pm 0.7	0.080
Serum Albumin (g/dL), \pm SD	3.76 \pm 0.48	3.73 \pm 0.5	3.85 \pm 0.43	0.644
MMSE (/30), \pm SD	23.63 \pm 4.24	22.72 \pm 4.15	25.86 \pm 3.64	0.002*
BADL (/6), \pm SD	4.87 \pm 7.79	4.43 \pm 1.78	5.96 \pm 0.21	<0.0001*
IADL (/8), \pm SD	5.75 \pm 2.53	4.88 \pm 2.52	7.87 \pm 0.46	<0.0001*
POMA (/28), \pm SD	19.87 \pm 7.79	17.8 \pm 8.15	29.91 \pm 3.41	<0.0001*
SPPB (/12), \pm SD	5.34 \pm 3.65	4.21 \pm 3.25	8.09 \pm 3.12	<0.0001*
MNA (/30), \pm SD	21.01 \pm 3.65	19.61 \pm 4.08	24.48 \pm 2.25	<0.0001*
CIRS-C (/n), \pm SD	3.29 \pm 1.88	3.54 \pm 1.84	2.70 \pm 1.89	0.078
CIRS-S (sum/13), \pm SD	1.73 \pm 0.35	1.78 \pm 0.36	1.58 \pm 0.29	0.012*
Chronic Drugs (n), \pm SD	6.19 \pm 2.55	6.11 \pm 2.61	6.39 \pm 2.46	0.649
PASE (n), \pm SD	83.08 \pm 68.44	66.07 \pm 62.51	124.48 \pm 65.65	0.001
Social Support Score (/17), \pm SD	6.49 \pm 2.86	7.39 \pm 2.48	4.3 \pm 2.55	<0.0001*
FI (/1) \pm SD	0.35 \pm 0.18	0.15 \pm 0.06	0.44 \pm 0.15	<0.0001*
Rectus femoris (mm), \pm SD	17.8 \pm 4.62	16.26 \pm 4.37	19.09 \pm 4.67	0.017*
Vastus intermedius (mm), \pm SD	11.44 \pm 3.76	10.75 \pm 3.83	13.13 \pm 3.05	0.005*
MT (mm), \pm SD	27.08 \pm 7.34	27.08 \pm 7.34	32.22 \pm 6.87	0.003*
Subcutaneous fat (mm), \pm SD	11.89 \pm 6.35	12.24 \pm 6.94	11.01 \pm 4.66	0.367

BADL, Basic Activity of Daily Living; BMI: Body Mass Index; CIRS: Cumulative Illness Rating Scale; eGFR, estimated Glomerular Filtration Rate (according to CKD.EPI formula); FI, Frailty Index; IADL, Instrumental Activity of Daily Living; MMSE, Mini Mental State Examination; MNA, Mini Nutritional Assessment; MT, Muscle Thickness (vastus intermedius plus sectus femoris); PASE, Physical Activity Scale for the Elderly; POMA, Tinetti's Performance Oriented Mobility Assessment; SD, Standard Deviation; SPPB, Short Performance Physical Battery. The p value correspond to Student's t test for continues variables, and chi square test for categorical data.

#853 Table A: Characteristics of the overall population and of subgroup according to frailty status.

FI of 0.35 ± 0.18 . Characteristics of the overall sample and of subgroups divided according frailty status are reported in table a. At multivariate regression analysis, FI was significantly and independently associated with age and MT (Table 853a).

Conclusions: MUS measures of MT of vastus intermedius and rectus femoris resulted to be significantly related to FI in a population of hospitalized elderly patients. MUS may constitute an additional "instrumental" CGA domain of frailty.

FI R ² : 0,26				
Variables	Coeff.	SE	Sig.	Partial Contribution to R ² (%)
constant	-0.17	0.25	0.48	
Age	0.094	0.0028	≤0.001	58.6
MT	-0.007	0.0025	≤0.01	41.4
Gender	-0.031	0.0401	0.438	
BMI	0.0012	0.004	0.76	
SF	-0.0032	0.003	0.27	

BMI, Body Mass Index; FI, Frailty Index; MT, Muscle Thickness (*vastus intermedius plus rectus femoris*); SF, Subcutaneous Fat.

#853 Table B: Regression analysis for Frailty Index

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PV468 / #896

MORTALITY IN THE INTERNAL MEDICINE DEPARTMENT: A FOUR-YEAR (2016-2019) CASE-BY-CASE ASSESSMENT IN A HOSPITAL UNIT

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Background and Aims: The study of the causes of death allows epidemiological understanding of populations, monitoring of disease tendencies and patterns, and the establishment of guidelines aiming the promotion of health, allocation of resources, planning of the services, and the establishment of priorities in health policies. Aims: Analyze the mortality statistics of an Internal Medicine Department of a Hospital Unit, for a better understanding of local reality. This will allow a better assessment of health indicators, expected deaths, and mortality rates.

Methods: A retrospective study was conducted based on the inspection of the death certificates and clinical files of the patients in an Internal Medicine Department of a Hospital Unit between 2016 and 2019.

Results: During the period under analysis, 412 death certificates were issued with no differences between sexes. Average death age was 83 years, with the most prevalent age range being between 80 and 99 years. Regarding admission time, the average duration

was of 11 days, with most deaths occurring within the first 10 days. The most prevalent causes of death were the following: respiratory infections, cancer, cardiac complications, sepsis, and strokes. However, it was not possible to establish a causal relation between the nosocomial infection and an extensive admission duration.

Conclusions: The majority of the deceased patients were elderly, being the respiratory disease the main cause of death. By filling correctly the deaths certificates and by knowing the most prevalent causes of death, it allows gaining a deeper understanding of mortality and its underlying causes.

PV469 / #916

EVALUATION OF A STUDENT-OLDER ADULT TELEPHONE BEFRIENDING PROGRAM TO REDUCE SOCIAL ISOLATION DURING THE COVID-19 PANDEMIC: PRELIMINARY RESULTS

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Background and Aims: Social isolation and loneliness are associated with many adverse health outcomes. The COVID-19 pandemic has increased this risk, which has disproportionately affected older adults. Since telephone befriending may be a feasible and safe intervention during the pandemic, the McMaster Phone-a-Friend Program (PFP) was established with the goal of reducing social isolation through weekly calls from university students. This study's goal is to evaluate the effectiveness of the program in reducing social isolation, and to determine its long-term feasibility.

Methods: Community-dwelling older adults in Hamilton, Waterloo, and Niagara regions of Canada, at risk for social isolation during COVID-19, were identified by their primary care provider and matched to trained university student volunteers, who provided social interaction through weekly telephone calls. Older adults completing ≥4 calls were contacted to participate in a telephone survey to understand their perceptions of the program and its impact.

Results: To date, the PFP program has matched 64 older adults and student volunteers. Twenty older adults participated in the survey. The mean age was 79 years, 65% were female, and 75% lived alone. The majority of participants felt less lonely after participating in the program (85%), believed it improved their quality of life (75%), and indicated that they would participate in the program after the pandemic (75%). Evaluation of the program's effectiveness using a validated social isolation scale is in progress.

Conclusions: University student led telephone befriending programs appear to be a feasible and generalizable way of reducing social isolation and loneliness among community-dwelling older adults during the pandemic.

PV470 / #973

IMPACT OF THE CLINICAL FRAILTY SCORE IN ELDERLY PATIENTS IN A INFECTIOUS DISEASE DEPARTMENT

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Background and Aims: Elderly patients have higher susceptibility to infection, atypical signs and a poor prognosis given their fragility. We aimed to investigate the association between frailty and patient characteristics, clinical features, and outcomes among elderly patients with infection.

Methods: We conducted a retrospective study of elderly patients admitted in the Infectious disease department during 2017. We used the clinical frailty score (CFS) to classify patients: G1: non-frail (CFS 1–3) G2: frail (CFS 4–6), and G3: severely frail (CFS 7–9).

Results: We collected 156 patients. The average age was 74±6 years. The population was divided into G1: 82 patients (52.6%), G2: 29 patients (18.6%) and G3: 45 patients (28.8%). The mean age was significantly higher in G3: 78± 8years (p: 0.04). The most common antecedents were hypertension (55.1%), diabetes (45.5%). 41% of patients were taking more than 5 drugs and 31.4% were taking drugs increasing infection's risk. Drugs' number did not depend on the CSF (p=0.3). The average consultation time was 10 days with antibiotic already taken in 30.8% of cases. There was no significant difference in the frequency of urinary tract, respiratory, or skin infections between the three groups. The average length of hospital stay was 6 days. Complications were noted in 13 cases.

Conclusions: Vulnerable patients with suspected infection tend to have poor disease outcomes. However, they did not show a statistically significant increase in complication or mortality thanks to early and appropriate care.

PV471 / #1013

COVID-19 AND AGING: UNDERLYING FACTORS OF SEVERITY

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Background and Aims: Mortality related to COVID-19 is higher in the elderly population. The purpose of this study was to compare the clinical features of elderly (EG) and young and middle-aged (YM) patients with COVID-19 and analyze mortality predictors.

Methods: Retrospective analysis of ongoing collection of prespecified data, on a single institution, including patients

hospitalized consecutively due to COVID-19 infection, from March to June 2020.

Results: of the 195 patients analyzed, 50.8% were female, 111 (56.9%) patients had ≥65 years (EG) (median age 79 [65;94]), of which 45% had ≥80 years. 84 patients were YM (median age 50 [22;54]). EG had multimorbidity: hypertension, diabetes, heart failure and coronary disease (p <0.001). At admission Early Warning Score-2 (p <0.001), c-reactive protein (CRP), D-dimer, creatinine, anemia and lymphopenia were higher in EG. Median time of hospitalization was higher in EG (14 vs 10 days, p=0.004). Complications were more common in EG, bacterial infection (56% vs 32%) and acute kidney injury (31 vs 19%). There were no significant differences in admission to intensive care. There were 18 deaths (mortality 9,23%), 16 in EG, 13 (81%) among patients aged ≥80 years, 2 deaths in YM (p=0.004). Modified Early Warning Score (MEWS) at admission (OR 1.60, 95% CI 1.07-1.37, p=0.021) and CRP above 5 mg/dL (OR 2.12, 95% CI 1.13-26.26, p=0.034) were independent predictors of mortality in EG.

Conclusions: EG were at higher risk for complications and in-hospital mortality. Identification of specific scores of severity for this population is essential to ensure that best care is provided.

PV472 / #1122

A 6 YEARS OBSERVATIONAL STUDY OF PATIENTS ADMITTED TO AN INTERNAL MEDICINE DEPARTMENT: IMPACT PROGNOSTIC FACTORS ON ALL-CAUSE MORTALITY

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Background and Aims: The predominant population of internal medicine wards (IMW) includes elderly with multiple comorbidities. Few studies assessing long term mortality-predictors on this vulnerable population after discharge are published. The aim of this study was to analyse the impact of demographic variables and comorbidities on long term all-cause mortality.

Methods: This was an observational study prospectively including all patients admitted to an IMW between October 2013 and October 2014. Patients included in the one-year prospective part of the study were then retrospectively followed for 72 months.

Results: 681 were included. 59% died at 6 years and the all-cause mortality was significantly higher 6 months after discharge, comparing with long term mortality. There was statistical significance association between age and death, but only for age ≥80 years (X² 4.802, p=0.028). Binary logistic analysis was performed to assess which comorbidities were all-cause mortality predictors of death. Heart Failure (HF) (OR= 2,809; IC95%= 1,921 - 4,108), Anaemia (OR= 2,095; IC 95%= 1,452 - 3,021), Neoplasia (OR= 5.891; IC 95%= 3,262 - 10,641), COPD (OR= 1,821; IC95%= 0,993 - 3,338) and Chronic Renal Impairment (CRI) (OR= 2,785;

IC 95% = 1,433 - 5,413) were significant independent predictors of death. The multivariate model containing this 5 variables was significant ($X^2(5) = 124$; $p < 0.001$).

Conclusions: More than half of patients hospitalized in our IMW died at 6 years after discharge; half of those deaths occurred in the first 6 months, mainly due to comorbidities. These study highlights the need for a close follow-up in the early post-discharge period.

PV474 / #1372

CHRONIC AND PROLONGED HYPONATREMIA: RISK FOR PROXIMAL FEMUR FRACTURES IN THE ELDERLY - CLINICAL STUDY

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Background and Aims: Hyponatremia is the most common electrolyte disturbance in hospitalized patients and is responsible for increasing morbidity and mortality. Several studies have associated prolonged hyponatremia with fracture risk in elderly patients.

Methods: Retrospective cohort study of a single Brazilian medical center focused on the relation between chronic, prolonged hyponatremia and femur fractures in the elderly. We defined elderly as age of 60 years old or greater and chronic hyponatremia as serum sodium < 135 mmol/L for at least 90 days

Results: We analyzed data from 4130 patients hospitalized between January 2014 and December 2017. 270 patients fulfilled criteria for chronic hyponatremia. We identified 69 femur fractures in this period, 06 of which in patients with chronic hyponatremia. The prevalence of femur fractures was 2,22% for chronic hyponatremic patients and 1,27% for normonatremic patients (Prevalence ratio 1,75). Odds of developing femur fractures were not significantly higher in the chronic hyponatremic group (OR: 1,768 CI: 0.75-4.16 p value= 0,29)

Conclusions: We provide further evidence of greater prevalence of femur fractures in elderly patients with chronic hyponatremia. New studies are however needed to establish a causal relation and determine whether correcting hyponatremia could reduce the incidence of such fractures.

PV475 / #1435

NEOVASCULAR AGE-RELATED MACULAR DEGENERATION: TREATMENTS THAT INTERNISTS MAY INDICATE

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Background and Aims: The purpose of this study is to provide an update of the Gold Standard treatment of DMAE, helping to detect the suboptimal and thus allow its correction or referral to Ophthalmology for evaluation and specific therapies.

Methods: A search of the most relevant and current bibliography within the last 5 years has been carried out using the Medline database with the advanced search option.

Results: Current DMAE treatments are:

- Hygiene and diet measures:

a) Tobacco: It has been shown to increase the risk of developing DMAE up to 4 times.

b) Alcohol: It is toxic and vasodilator effects.

c) Diet: The increase of pro-inflammatory substances in obese patients has been demonstrated to increase the risk of DMAE. A mediterranean diet is advised as well as vitamin E, C, beta-carotene, zinc, copper, lutein, zeaxanthin and Omega-3 fatty acids.

d) Solar protection: It is recommended to avoid the sunlight exposure due to the harmful effect of the ultraviolet rays to the retinian epithelium.

- Pharmacotherapy:

a) Anti-vascular endothelial growth factor (VEGF): Bevecizumab, Ranibizumab and Aflibercept.

b) Photodynamic Therapy: Drug and laser therapy that stops the neovascular génesis. It's indicated in the active phase of the disease.

c) Corticosteroids: Triamcinolone Acetonide and Anecortave Acetate. For systemic use in concomitant therapy with photodynamic therapy.

Conclusions: The update in the gold standard DMAE treatment is an important knowledge tool for the internist, which will allow him to decide about the direct prescription of some of them, as well as the adequate decision for the referral of the patient to ophthalmology.

PV476 / #1540

THE DANGER OF SOLITARY TOURISM IN THE ELDERLY: FROM THE BEACH TO URGENT REPATRIATION

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Case description: An 81 year old man from France who is in Murcia (Spain) alone for holidays, is found by neighbors lying on the floor of his house, naked with sphincter relaxation and facial trauma.

The only information about his personal history is a diagnosis of Parkinson's disease. The evaluation in emergency room was conscious and partially disoriented, severe dysarthria, axial and four limbs rigidity and bradykinesia, facial hypomimia and left central facial paresis. Negative for meningeal signs. Temperature 37,7°C. Blood test with elevated myoglobin and creatine kinase. The spinal fluid presented 90 mg/dl of pleocytosis. The computer tomography didn't show pathological images.

Clinical Hypothesis: The patient is admitted with diagnostic suspicion of akinetic mutism due to a bad control of Parkinson's disease.

Diagnostic Pathways: Serology of spinal fluid was request showing positivity for herpesvirus 6, so the patient was diagnosed with herpesvirus 6 encephalitis. Ganciclovir was indicated and it was associated methylprednisolone and levetiracetam due to the high frequency association with vasculitis. The patient was repatriated by medicalized plane.

Conclusion and Discussion: Herpesvirus 6 encephalitis is a rare disease in immunocompetent people, therefore, it is essential a screening for immunosuppressive diseases, including neoplastic disease. Although older people are free to make trips alone, sudden loss of health must be taken into account, so a close monitoring or a personal support is recommended during their trip, especially if it occurs abroad.

high comorbid burden frequently dictates a dismal prognosis but may also be a precious opportunity to review chronic therapeutic. Although an important mean reduction in MDN was achieved ($2,2\pm 3$), it was still above 5 and a substantial number of patients-maintained PPI and statins. This study highlights the importance of addressing polypharmacy in each opportunity.

PV477 / #1587

RETHINKING DRUG TREATMENT IN GERIATRIC POPULATION

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Background and Aims: Geriatric polypharmacy is a growing problem affecting patients' safety and performance. Drugs are started and hardly stopped. Many drugs are used as prevention, may induce side-effects that are treated with other drugs, with no clear patient benefit. We aim to describe drug prescription in a frail population.

Methods: We reviewed 77 charts and selected patients with ≥ 70 years and moderate to severe dementia, high dependence index (Katz index), high Charlson Comorbidity Index. The number and group of drugs was evaluated ant the admission and discharge.

Results: Thirty-one patients, with a mean age of 86.1 ± 5 y, 58% female gender. Dementia was present in 74.2%; 45.2% where recognized family; mean Katz index was 1 ± 1 ; all patients had Chalson index ≥ 6 and 74.2% ≥ 7 . Mean drug number (MDN) at admission was 8.6 ± 5 , with 35.5% taking ≥ 10 drugs. MDN at discharge was 6.5 ± 3 , with 9.6% ≥ 10 drugs. Drugs more frequently interrupted where: benzodiazepines (32.3%); antiaggregants (29%), antipsychotic and antidepressant (22,6%); hypocoagulation, oral iron and statins (12.9%); proton-pump inhibitors (PPI), beta-blockers and diuretics (16.1%). PPI was maintained in 29% and statins in 12.9%. Mortality at 6-12 months was 58.1%.

Conclusions: Hospital admission in geriatric population with a



AS09. INFECTIOUS DISEASES

PV479 / #29

SCREENING FOR LATENT TUBERCULOSIS INFECTION BEFORE PRIOR TO STARTING BIOLOGICAL TREATMENT

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Background and Aims: Every year we witness an increase in the number of immunosuppressive treatments used. Biologicals favor the development of infections: latent tuberculosis, hepatitis viruses and herpetic disease. The objective is to describe the activity of the monographic medical consultation for tuberculosis and other mycobacteria, focusing on the cases of latent tuberculosis infection (LTBI) screening prior to the start of immunosuppressive treatment.

Methods: Review of medical records of patients referred to consultation during 2019 at the University Hospital of Jerez de la Frontera for LTBI screening prior to starting immunosuppressive treatment.

Results: We received 734 referrals, 36 of them (5%) were preferential due to clinical needs. The services that made the most referrals were Dermatology (237), Rheumatology (214), Digestive (141), Neurology (55), Internal Medicine (22), Ophthalmology (17), Pulmonology (15) and others (33). 196 patients completed treatment for LTI with isoniazid, rifampin, or a combination of both. They attended the consultation every 45 days to monitor liver enzymes and perform the Eids-Hamilton Test to check adherence. In 2 cases, immunosuppressive treatment was suspended due to severe herpetic pathology.

Conclusions: Patients who are candidates for immunosuppressive therapy who initiate treatment for LTBI are closely monitored to avoid liver toxicity and to control adherence to treatment. The particularities of each immunosuppressant and the complexity of these patients make specialized consultation necessary. We must be attentive to the appearance of tuberculosis disease during pharmacological immunosuppression due to the high morbidity and mortality it represents in these patients.

PV479a / #109

A RARE CASE OF PROTEUS MIRABILIS INFECTIVE ENDOCARDITIS IN AN IMMUNOCOMPROMISED PATIENT

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Case description: Herein, we highlight a case of *Proteus mirabilis* infective endocarditis, a rare and poorly described clinical entity caused by a Gram negative, rod-shaped bacterium of the *Enterobacteriaceae* family responsible mostly for urinary tract infections. A 73-year-old female patient with a history of diabetes mellitus presented to the emergency department with fever and sudden onset of right-sided hemiparesis, the physical examination revealed systolic murmur. Significant lymphocytosis, indicative of B cell lymphoma, high inflammation markers and elevated rheumatoid factor were observed from laboratory evaluation. Renal stones and splenomegaly with a splenic infarct were recognized from the abdomen ultrasonography, while brain computed tomography revealed multiple embolic infarcts.

Clinical hypothesis: Due to the above clinical and laboratory findings the patient was investigated for complicated bloodstream infections.

Diagnostic pathways: During her hospitalization blood and urine cultures grew *Proteus mirabilis*. The patient underwent transesophageal echocardiography which revealed a 15mm*7mm natural mitral valve vegetation. A definite diagnosis of infective endocarditis was established by meeting 1 major-3 minor Dukes criteria. A targeted combination treatment with meropenem and ciprofloxacin for 6 weeks was completed, while surgical intervention was rejected due to patient's high perioperative mortality. The blood cultures thereafter were negative and the follow up echocardiography showed a significant vegetation size decrease.

Conclusion and discussion: Infective endocarditis from *Proteus mirabilis* is an extremely uncommon disease with high morbidity

and mortality among the reported cases. Because of its rarity the optimal antimicrobial regimen and the role of combination therapy are yet to be fully clarified.

PV480 / #40

A CASE OF ELSBERG SYNDROME

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Background and Aims: Elsberg syndrome is a viral radiculitis of lumbosacral regions, with occasionally spinal cord involvement. The course can be acute or subacute. Viral pathogens are from reactivation or primary infection of *Herpes simplex virus 2*.

Methods: This is a case report.

Results: A 41 years old man was hospitalized due to progressive bilateral lower limbs weakness for 3 weeks and urine retention. Some ulcerative skin lesions at genital area were also found. HIV was diagnosed over 11 years and under anti-retroviral agents with CD4 count over 200 cells/mm³ 6 months before admission. On examination both lower limbs muscle power was grade 4, symmetric with brisk reflexes. Sensory examination was normal. CSF showed 1 white cell, protein and glucose were within normal range. Cytology showed no malignant cell. CSF gram stain, acid-fast stain, and culture were negative. HSV PCR in CSF was negative. Genital ulcer swab showed HSV-2 positive. Lumbar and lower thoracic Spinal MRI was normal and no abnormal contrast enhancement was detected. Acyclovir 400 mg q8h IV was given for 14 days. His muscle power improved but still complaining of pins and needles sensation on both lower limbs.

Conclusions: There were some small reviews regarding Elsberg Syndrome. As high as 30% permanent neurological deficits were noted. Sacrum involvement appeared to have better outcome than lumbar involvement. The clinical presentations are diverse and other infection such as neurosyphilis, cryptococcosis or *Cytomegalovirus* should be excluded. Our patient fulfilled the clinical criteria as "Clinically Definite" according to Savoldi and et al.

PV481 / #46

EPIDEMIOLOGY OF HEPATITIS B VIRUS (HBV) IN THE NORTHERN HEALTH AREA OF CÁDIZ.

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Background and Aims: In the context of Project GEHEP 017, "Usefulness of core-related antigens (AgHBcr) in the management of chronic HBV infection" we conducted a baseline cohort study

to assess the local epidemiology of chronic HBV infection.

Methods: We analyzed all patients who had positive HBsAb from October-2018/December-2019. of those 1501 patients, there were 301 who had positive HBsAg and 31 who had negative HBsAg, but were under active treatment for chronic hepatitis B.

Results: 332 patients. Sixty percent were men, with median of 56 years (12-92). 45% percent were requested from Primary Care and 37% from the Digestive System. 225 had a viral load for HBV, 43% had an undetectable viral load, 34 of whom were in treatment. of these, 85% were AgHBe negative, 80% were AchBe positive. of the 128 patients with detectable viral load, the median was 500 IU/ml (11-117,000,000), 83% were in treatment, 93% with negative HBsAg and 91% negative for HBAC. Five patients had coinfection with HIV, HCV and 2 with HDV (only 19 had the determination made). Mean total bilirubin 0.8 mg/dL, GPT 31 U/L, GOT 30 u/L, GGT 45 U/L, albumin 4.3 g/L, creatinine 0.8 mg/dL, INR 1, prothrombin time 97%, platelets 217000 cel/microL. 65% were on treatment: tenofovir-disoproxil (19%), entecavir (7.5%) and lamivudine (5%).

Conclusions: We need to improve the diagnosis of chronic hepatitis B, carrying out more viral loads to better detect which patients benefit from starting treatment. The liver profile is usually not affected. An active search for possible co-infections is essential.

PV482 / #67

WEIL S DISEASE ASSOCIATED SEVERE PULMONARY HAEMORRHAGIC SYNDROME

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Background and Aims: Leptospirosis is caused by infection of *Leptospire interrogans*. The disease evolves in two clinical phases, the septicemic and the immune. Weil's disease is the most severe form of Leptospirosis and can occur at the end of the first phase, but can occur at any time during acute leptospirosis.

The Leptospirosis associated severe pulmonary hemorrhage syndrome (SPHS) is characterized by haemoptysis, hypoxemia, haemoglobin drop or diffuse alveolar shadows in X-Ray. SPHS is possibly immune mediated. Capillary injury results in leakage of blood cells.

Methods: 45 years old male farmer was admitted to our hospital due to high fever, headache, myalgia, fatigue, jaundice and acute renal failure. On admission the platelet count level was about 13000/mL while coagulation tests were normal. A diagnosis of positive Weil's disease was established and a PCR and antibodies test against leptospire were performed. He was started on ampicilline-sulbactame 3g qid and methylprednisolon 40 mg tid, despite the administration of corticosteroids is controversial. Platelets transfusion was performed. On day 5 he was afebrile, platelet count level was 160000, but he presented with haemoptysis, hypoxemia and Hb drop (about 8%). A CxR showed diffuse opacities and a chest CT scan was performed with findings of bilateral ground glass opacities.

Results: We begun the administration of methylprednisolone pulses 1 gr qd for 3 consecutive days, with clinical improvement.

Conclusions: Conclusion

Early recognition of fulminant leptospirosis is very important. In severe cases with pulmonary hemorrhage, the use of glucocorticosteroids demonstrates beneficial effect.

PV483 / #107

LEPTOSPIROSIS, A REEMERGING DISEASE

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Background and Aims: Leptospirosis is a reemerging zoonosis, with high worldwide distribution. Human infection is accidental, after direct or indirect contact with animal urine. It can manifest in a mild way but it can be fatal in 10-50% of cases.

Methods: A 59-year-old man with a personal history of high blood pressure and moderate ethanolic habits. Admitted in the ER with myalgia and fever with 5 days of evolution, vomiting and with abdominal discomfort.

Results: The initial observation didn't showed any major changes. The blood tests presented anemia and increased inflammatory parameters, thrombocytopenia, kidney dysfunction and pattern of cytolethargy with high hyperbilirubinemia. The blood gas indicated hyperlactacidemia. Assuming sepsis with multiorgan dysfunction he collected cultural exams and bacterial and viral serologies. He ended up worsening, mainly with kidney and liver dysfunction, so he was admitted to the ICU, where he started organ support. The hypothesis of zoonosis was raised, although a weak epidemiological history. Serologies were negative, including Leptospira ELISA-IgM. Due to a high degree of suspicion, we did the polymerase chain reaction test for leptospirosis, that was positive. He completed 8 days of doxycycline with favorable evolution.

Conclusions: Although leptospirosis is most common in developing countries, there's an increasing importance in recent decades in Portugal, with the occurrence of fatal cases. For diagnosis, the results of the ELISA test should not be considered alone, being the PCR fast and with high sensitivity. This diagnose is often forgotten and a high clinical suspicion is necessary, based not only on epidemiologic exposure but also on clinical manifestations.

PV484 / #129

THE SPLEEN WAS THE KEY

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Background and Aims: Tuberculosis is a contagious infection caused by *Mycobacterium tuberculosis* bacteria. Usually affects the lungs, being the abdomen the most common site of extrapulmonary tuberculosis. A delay in the diagnosis may result in increased morbidity, so an early recognition is essential.

Methods: A 26 years-old man presented to the ER with dyspnea. He reported productive cough, asthenia, sensation of unquantified fever and night sweats with 1month.

Results: On examination he was tachycardic and tachypneic. Blood gas test showed respiratory alkalemia and hypoxemia. Analytically with anemia, increased inflammatory parameters, hyponatremia and cytolethargy pattern without hyperbilirubinemia. Chest X-ray showed an heterogeneous infiltrate in the lower left hemithorax. Assuming pneumonia he started empirical antibiotic. A chest CT confirmed the diagnosis. The abdominal ultrasound was normal. On the 5th day of antibiotic he got worse and antibiotic therapy was escalated. Cultural exams and serologies were negative (atypical microorganisms, pneumococcus and legionella). No improvement was aimed and a new contrast chest CT was requested. He maintained signs of bronchopulmonary consolidation and a splenic hypodensity suggestive of abscess was noticed. Bronchofibroscopy with bronchoalveolar lavage was performed: the microbiological exam was negative, but the PCR for *Mycobacterium tuberculosis* was positive. Disseminated tuberculosis was admitted and anti-tuberculous drug therapy was started. The patient evolved with clinical and analytical improvement, and resolution of the splenic abscess.

Conclusions: Splenic tuberculosis is usually associated with disseminated form of miliary tuberculosis, being an unusual entity. The imaging findings are not pathognomonic, but can be highly suggestive when considered in conjunction with clinical presentation.

PV485 / #149

MUCORMYCOSIS AND DIABETIC KETOACIDOSIS

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Background and Aims: Human mucormycosis is a rare fungal infection that affects particularly immunocompromised patients, such as diabetic patients with ketoacidosis. Its clinical presentation is wide but more commonly includes rhino-orbital-cerebral and pulmonary infections.

Methods: We present the case of a 49-year-old male, with known history of complicated type 2 diabetes mellitus unmedicated, found unconscious and admitted in the emergency department.

Results: The patient was evaluated and diagnosed with diabetic ketoacidosis, with HbA1C of 22.1%, and B influenza pneumonia with superimposed bacterial infection. Treatment with insulin, hydration, oseltamivir, ceftriaxone and claritromycin was

started. Once clinical evolution was not the expected expected with increasing needs of supplementary oxygen and increasing inflammatory biomarkers, a CT scan was performed. It showed parenchymal densification and adjacent collapse of the inferior left lung lobe. Concerning the immunodeficiency suspicion of concomitant fungal infection was raised so fluconazole was started. A bronchoscopy was performed showing white adherent plaques, which bronchoalveolar lavage showed evidence of yeasts and hyphae suggestive of mucormycosis. Appropriate treatment with isavuconazole was started and positive response was observed allowing clinical resolution and brief hospital discharge.

Conclusions: The rare diagnosis of mucormycosis implies a high clinical suspicion in immunocompromised patients without a satisfactory evolution.

Point S, Gabriel F, Bégueret H, et al. Tumor shape pulmonary mucormycosis associated with sinonasal aspergillosis in a diabetic patient. *Med Mycol Case Rep.* 2017;19:13-17. Published 2017 Sep 1. doi:10.1016/j.mmcr.2017.08.001

PV486 / #152

CLAUDICATION IN A POSTMAN AFTER DIARRHEA

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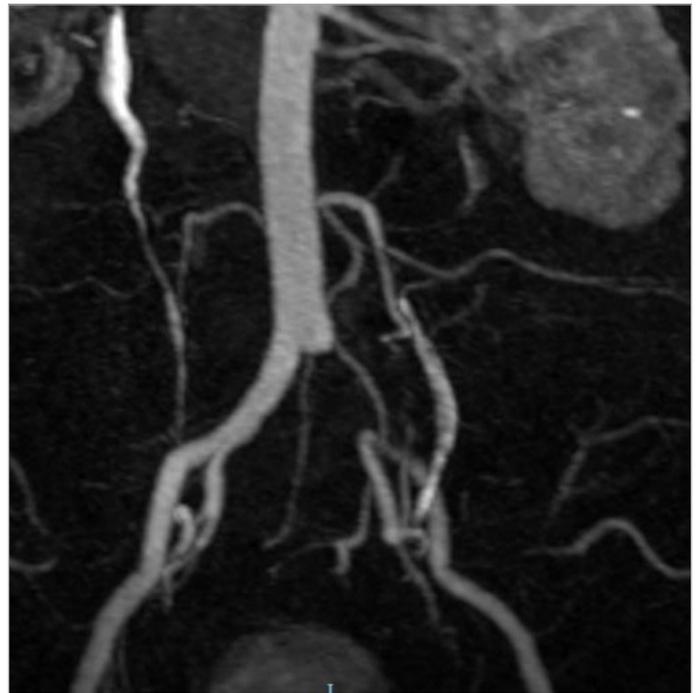
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Background and Aims: About 5% of all patients with gastrointestinal disorders caused by non-typhoid *Salmonella* will develop bacteremia. A feared complication of *Salmonella* bacteremia in adults is the development of infectious endarteritis

Methods: Report a case of man diagnosed with infectious endarteritis by non-typhoidal salmonellosis.

Results: 63-year-old male postman with history of daily fever for 20 days associated with intermittent claudication in the left lower limb. There was report of hospitalization in the previous month for fever and non-invasive acute watery diarrhea treated with ciprofloxacin for 5 days with improvement of the condition initially, but with recurrence of the fever after antibiotic suspension. On physical examination, axillary temperature: 37.9°C; HR: 91 bpm; BP: 120/80 mmHg. We did not detect pulses in the entire left lower limb. HB: 11.2 g/dL; WBC: 11,220/mm³ without left shift; CRP: 18 mg/dL (RR <0.5 mg/dL); ESR: 98 mm/hr (RR <30 mm/hr); BUN: 48 mg/dL; creatinine: 1.5 mg/dL. MRA of aorta and iliacs showed severe stenosis of the left iliac artery.

It was addressed by open endarterectomy with macroscopic findings of mycotic aneurysm and microscopy showing atherosclerosis with thrombosis and areas of dense inflammation with numerous plasma cells suggestive of infection. Blood culture showed carbapenem-sensitive *Salmonella* sp. compatible



#152 Figure

with infectious endarteritis by non-typhoidal salmonellosis. The patient was treated with ertapenem and ciprofloxacin for 6 weeks with clinical improvement and negative blood cultures.

Conclusions: Infectious endarteritis by non-typhoid *Salmonella* can occur in immunocompetent hosts, it has a high mortality rate and better results if treated with antibiotics and surgical therapy.

PV488 / #202

CYTOKINE STORM SYNDROME AS A COMPLICATION OF CULTURE NEGATIVE ENDOCARDITIS IN A PATIENT WITH DEFIBRILLATOR

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Case Description: A 50-year-old man with a history of cardioverter-defibrillator implantation presented to ER with high fever, muscle weakness and altered mental status. The clinical examination showed hepatomegaly which was confirmed via ultrasound, while brain computed tomography and lumbar puncture were normal. Multi-organ-dysfunction was revealed by laboratory findings; acute kidney injury, elevated liver enzymes and high inflammatory markers. Furthermore, leucocytosis, thrombocytopenia, unconjugated hyperbilirubinemia, and elevated ferritin with hypertriglyceridemia. Haemolysis and TTP were excluded by peripheral blood smear, haptoglobins and direct Coombs test.

Clinical Hypothesis: Due to the above clinical and laboratory findings the patient was investigated for haemophagocytosis and its cause.

Diagnostic Pathways: The bone marrow biopsy despite the high score for haemophagocytosis revealed no evidence of HLH and the patient continued to be treated with broad spectrum antibiotics without any improvement. Due to high clinical suspicion for cytokine storm syndrome high doses of dexamethasone were administered. The blood, bone marrow and urine cultures were all negative, nonetheless the patient underwent transesophageal echocardiography which disclosed cardioverter-defibrillator infection with a 3 cm vegetation. Thus, he was treated with defibrillator surgical removal (negative culture) and long-term empirical antibiotic regimen, leading eventually to apyrexia and syndrome eradication.

Conclusion and Discussion: Cytokine storm syndromes are severe systemic inflammatory responses with high morbidity and mortality. Early recognition of the causal factor can contribute to successful treatment. This case report aims to raise the awareness of this complication since there are much to be learnt regarding its pathophysiology and treatment.

PV489 / #216

PREVALENCE AND RISK FACTORS OF CENTRAL-VEIN-CATHETER-RELATED BLOODSTREAM INFECTIONS (CRBSI)

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Background and Aims: CRBSIs are an important cause of worldwide mortality and morbidity. Objective was to assess the prevalence and risk factors of CRBSIs in hospitalized patients.

Methods: A retrospective analysis was carried out including all hospitalized patients with a central venous catheter (CVC) during the past 4 years. In 312 patients (55.4% women), mean age 78.46±11.50 (M±1SD), patient and catheter characteristics were recorded. Parametric tests and multiple logistic regression analysis were applied to identify the risk factors for CRBSIs. Bloodstream infections were counted according to the definition introduced by the Centers for Disease Control and Prevention.

Results: The occurrence of bloodstream infections was 23.7%. 13.8% were associated with CVCs. Subclavian, jugular and femoral CVCs constituted the 22.8%, 42.6% and 34.6% respectively. The administration of parenteral nutrition ($\chi^2=12.592$, $p=0.002$), the use of cortisone ($\chi^2=4.217$, $p=0.049$), the frequency of CVC use ($U=3.976$, $p=0.001$) and the time length of its presence ($U=4.673$, $p=0.043$) were highly associated with the development of CRBSIs. Patients with multiple central venous catheterization procedures were more prone to evolve a CVC derived bloodstream infection ($\chi^2=15.792$, $p=0.003$). In multivariate analysis the only independent predictors for the development of a CRBSI were the administration of parenteral nutrition ($p=0.050$, $OR=2.281$, 95% CI 0.996-5.223), and the frequency of CVCs use ($p=0.004$, $OR=1.093$, 95% CI 1.029-1.161).

Conclusions: As the major independent predictor for the development of a CRBSI was the frequency of CVCs use, adherence to guidelines for all personnel involved in the maintenance of CVCs is deemed necessary.

PV490 / #220

DIFFERENTIATION OF THE RISK FOR THE DEVELOPMENT OF CRBSI ACCORDING THE CVC INSERTION SITE

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Background and Aims: The site of catheter insertion has been reported as a risk factor for Central-Venous-Catheter-Related Bloodstream Infection (CRBSI). Subclavian Central Venous Catheters (CVCs) were associated with the lowest infection rate, followed by jugular and femoral. Aim was to determine whether the site of catheterization affects the risk for a CRBSI occurrence.

Methods: A retrospective analysis was carried out including all hospitalized patients with a central venous catheter (CVC) during the past 4 years. In 312 patients (55.4% women), mean age 78.46±11.50 (M±1SD), patient and catheter characteristics were recorded. Parametric tests were applied to access the objective of the study. CRBSIs were counted according to the definition introduced by the Centers for Disease Control and Prevention.

Results: The overall occurrence of CRBSIs was 13.8%. Jugular, subclavian, and femoral CVCs constituted the 42.6%, 22.8% and 34.6% while the occurrence of CRBSIs, according to the site of insertion, was 10.5%, 11.2% and 19.4% respectively. The incidence of CRBSI was 1/132 catheter days for jugular, 1/116 for subclavian and 1/61 for femoral CVCs. Furthermore, the probability of a CRBSI occurrence according to the count of CVCs use was 1/119 for jugular, 1/112 for subclavian and 1/66 for femoral CVCs. When we compared the incidence of CRBSIs according the insertion site the only statistically significant difference was found between femoral and jugular CVCs ($\chi^2=3.819$, $p=0.05$).

Conclusions: Our results suggest that despite the fact that there is no statistically significant role of the insertion site in the development of a CRBSI, femoral CVCs should be avoided.

PV491 / #246

STRONGYLOIDES HYPERINFECTION: A DIAGNOSIS TO CONSIDER IN AN IMMUNOCOMPROMISED PATIENT

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Background and Aims: Strongyloidiasis is an uncommon parasitic infection in non-tropical areas. It often presents itself as an asymptomatic chronic infection. Symptoms are more likely to develop under immunocompromised situations.

Methods: The authors report a *Strongyloides stercoralis* infection in glucocorticoid treated IgG4-related disease patient. He showed one-week abdominal pain, nausea, anorexia, constipation and vomiting. He was diagnosed with diabetic ketoacidosis and colitis as the trigger factor. He was admitted in Intensive Care Unit (ICU) with septic shock. Hemoptoic sputum and cutaneous lesions were noted, as well as multiorgan dysfunction.

Results: In the investigation *Strongyloides stercoralis* larvae were observed on optical microscopy of the sputum. The patient developed refractory shock and died in 14 days although treated with oral albendazole and ivermectin.

Conclusions: This report highlights the need of being suspicious about opportunist helminth infection in ICU immunocompromised patients, which are associated with worse prognosis.

PV492 / #251

INFECTIOUS MONONUCLEOSIS: EXCLUSIVE FROM YOUNG?

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Case Description: A 57-year-old man presented to the emergency with complaints about fever, with three weeks of evolution. He had a history of hypertension. Initially, he recalled having odynophagia, being medicated with azithromycin for tonsillitis. Nevertheless, he maintained frequent episodes of fever, headache and cervical pain. Has that, we admitted the patient for the study of a three weeks fever. He presented no alterations in the physical examination. Laboratory workup exhibited hepatic cytolysis with normal function and positivity for recent EBV and CMV infection; the abdominal tomography revealed the presence of splenomegaly. These results contributed to the diagnosis of infectious mononucleosis. The patient had a favorable clinical course throughout the hospital stay, with only supportive therapy and subsequently sustained pyrexia.

Clinical Hypothesis: Odynophagy is a common symptom, and can be a manifestation of various diseases, like tonsillitis, pharyngitis,

or even neoplastic diseases. Although mononucleosis is frequently related to young people, we cannot exclude this diagnosis considering only age.

Diagnostic pathways: The presence of an enlarged spleen and swollen cervical, axillary, and inguinal lymph nodes are the most useful symptoms to raise suspicion about infectious mononucleosis. To confirm the diagnosis, specific serologies for CMV and Epstein–Barr virus are performed.

Conclusion and Discussion: Mononucleosis is a pathology affecting children and young adults and is infrequent in adults. Older patients can often present without the typical symptoms of the disease, difficulting the diagnosis. This case stands since it is unusual for mononucleosis to be presented in this age group and therefore requires a high clinical suspicion.

PV493 / #265

CODE SEPSIS IMPLEMENTATION IN A THIRD LEVEL HOSPITAL: IMPROVING THE QUALITY OF CARE

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Background and Aims: Sepsis is definite as an organ dysfunction caused by a dysregulated response to infection, and is a life-threatening major healthcare problem. Millions of people are affected each year around the world, and mortality rate is up to 25%. Our objective is to analyze data from Code Sepsis in our centre.

Methods: Code Sepsis was implemented in our centre in 2016 involving Emergency, Intensive Care and Internal Medicine (including Infectious Diseases) departments. We gathered data from 1047 patients diagnosed with sepsis by SOFA criteria between 2016-2020, analyzing the evolution throughout these years. We also compared a first period of ten months during 2016-2017 and the same period of time during 2019-2020, looking for differences from both of them.

Results: In our cohort gender was mostly male (58.4%) with a high average age (median 80 years old), with no differences between

periods. Most patients were admitted in Internal Medicine (36.1%), followed by Geriatrics (24.4%). Up to 12.5% were admitted in ICU coming from the Emergency room, with an increase from the first period to the second one (11.5% and 22.2%, $p < 0.003$). Optimal treatment based on the suspected source of sepsis was administrated in 64.2% of a sample of patients during the first period compared to 91.4% during the second one ($p < 0.001$). Median time between triage and administration of antibiotics, fluids and blood cultures also improved between periods.

Conclusions: Code Sepsis introduction in hospitals is necessary to improve attention and treatment given to patients with sepsis, and also can improve time-related response.

	1 st period time (minute)	2 nd period time (minute)	p
Admittance to blood cultures	26	23	0.010
Admittance to antibiotics administration	56	50	0.405
Admittance to fluids administration	34	29	0.082

#265 Table: Comparison in minutes from the admittance in the Emergency Department to the administration of antibiotics, fluids and blood cultures extraction between the first and the second period of time.

PV494 / #289

WOMAN OF FEVER OF UNKNOWN ORIGIN AND DIFFICULT DIAGNOSIS.

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Case Description: 66-year-old woman with temperature spike up to 38° C, asthenia and occasional cough with little whitish expectoration. Retired tuberculosis care center nurse. No previous history of contact with animals, no field trips in the last year, no risky sexual contacts, and no previous transfusions. Normal physical examination of chest, abdomen, lower limbs, neurological examination, oral cavity, and skin. No adenopathies.

Clinical Hypothesis: Initially treated by her Primary Care physician with levofloxacin and amoxicillin-clavulanic. The cough subsided at 3 weeks, but the fever persisted. Hemogram, biochemistry, and coagulation analysis without alterations. Proteinogram without inflammatory pattern. Negative antinuclear antibodies. Sputum culture, pneumococcal and *Legionella* antigens all negative. Mantoux test positive. However, on the chest x-ray there was no image compatible with cavitated or miliar tuberculosis, neither any other alterations. Urine sediment normal. Negative uroculture. Serial blood cultures negatives. Ziehl Nielsen negative in urine and sputum. The absence of constitutional syndrome and X-ray consistent with TB made us think of a subacute infection.

Diagnostic Pathways: Hepatitis, HIV, *Coxiella*, *Rickettsia*, *Brucella*, *Parvovirus*, *Epstein Barr Virus*, and *Cytomegalovirus* serology were

requested. Results showed positive for *Coxiella burnetii* with a Ig G phase I title of 1/256, and IgG phase II of 1/256. A transthoracic echocardiogram was requested, discarding associated endocarditis

Conclusion and Discussion: Q fever is a zoonosis caused by *Coxiella burnetii*, with a wide varied presentation. Most patients are infected by aerosols inhalation or digestive means, by ingesting contaminated milk, or by occupational exposure. Our patient did not meet epidemiological criteria of suspicion, making it a very difficult diagnose.

PV496 / #305

EPIDEMIOLOGICAL AND CLINICAL FEATURES OF EXTRAPULMONARY TUBERCULOSIS

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Background and Aims: Tuberculosis (TB) remains a public health problem. It affects mostly the long, but the incidence of extrapulmonary cases have been increasing recently. We aimed to study the epidemiological, clinical and evolutionary features of extrapulmonary tuberculosis (EPT).

Methods: We conducted a retrospective study including all patients hospitalized for EPT in the infectious diseases department between 1992 and 2018.

Results: We encountered 494 patients, among whom 313 were females (63.4%). The mean age was 41±18 years. According to the place of residence, 329 patients came from rural areas (66.6%). Close contact with animals (26.7%) and raw milk consumption (31.4%) were noted. Forty-five patients were treated for a previous TB (9.1%) and five were HIV positive (1%). Patients consulted for fever (61.3%), night sweats (31.8%) and weight loss (49.6%). Lymph node TB was the most common site (43.5%), followed by neuromeningeal TB (15.8%) and abdominal TB (15.6%). There were 73 cases of osteoarticular TB (14.8%) and 60 cases of urogenital TB (12.1%). Pulmonary TB was associated with EPT in 54 cases (10.9%). The diagnosis was based on histological evidence (60.7%) and/or microbiological evidence (13.2%). The mean duration of antitubercular therapy was 11±5 months. Complications and sequelae were noted in 21.5% and 14.8% of the cases, respectively. The disease evolution was favorable in 462 cases (93.5%). Relapse was noted in 22 cases (4.5%). Ten patients were dead (2%).

Conclusions: Lymphnode TB was the most common site. EPT was associated with complications and sequelae which could be prevented with promptly diagnosis and treatment.

PV497 / #306

EPIDURAL INVOLVEMENT COMPLICATING INFECTIOUS SPONDYLODISCITIS

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Background and Aims: The incidence of infectious spondylodiscitis (SPD) is constantly increasing nowadays. The diagnostic delay is behind complicated forms and neurologic sequelae. We aimed to study the clinical and therapeutic features of epidural involvement complicating SPD.

Methods: We conducted a retrospective study including all patients hospitalized for SPD in the infectious diseases department between 2001 and 2018.

Results: We encountered 160 patients with SPD, among whom 83 patients (51.8%) had epiduritis. There were 44 males (53%). The mean age was 53±17 years. There were 42 cases (50.6%) of tuberculous SPD, 21 cases (25.3%) of pyogenic SPD and 20 cases (24.1%) of brucellar SPD. The revealing symptoms were back pain (100%), weight loss (56.6%) and fever (55.4%). Motor deficit (25.3%), sensory deficit (18%) and sphincter dysfunction (6%) were noted. Imaging results showed epidural abscess in 36 cases (43.3%) and epidural phlegmon in 17 cases (20.4%). Psoas abscess was noted in 25 cases (30.1%) and spinal cord compression in 11 cases (13.2%). Medical treatment and immobilisation were indicated in 100% and 74.6% of the cases, respectively. Both surgery and abscess drainage were performed in 11 cases (13.2%). Control imaging showed regression or disappearance of the epiduritis in 69.6% of the cases. The disease evolution was favourable in 60 cases (72.2%). Sequelae were noted such as back pain (57.1%), spinal deformity (31.6%) and sensory deficit (3.6%).

Conclusions: The management of epidural involvement associated with SPD remains controversial. Surgical treatment is indicated in front of neurological deficit or after the non-response to antibiotic.

PV498 / #308

EXTRA PULMONARY TUBERCULOSIS AMONG CHILDREN

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Background and Aims: Extrapulmonary tuberculosis (EPT), a public health problem, remains a common disease that may affect not only adults, but also children. In this perspective, we aimed to delineate clinical features of EPT among children.

Methods: We reported a retrospective study including all patients

with EPT between 1997 and 2018. We recorded clinical data as well as therapeutic regimen and evolution.

Results: In our study, we identified 1651 patients with EPT, among whom 213 patients (12.9%) were aged ≤18 years. There were 114 males (53.5%). The median age was 12 years ranging between one year and 18 years. Twelve patients were aged ≤ 2 years (5.6%). According to residency, 123 patients came from urban areas (57.7%). The most common clinical presentation was lymph node tuberculosis (TB) noted in 130 cases (61%), followed by abdominal TB in 28 cases (13.1%) and pleural TB in 18 cases (8.5%). Urogenital TB was diagnosed in 10 cases (4.7%). Both osteoarticular and neuro-meningeal TB were diagnosed in nine cases (4.7%). There were seven cases of cutaneous TB (3.3%). Five children had multifocal TB (2.3%). The median duration of antitubercular therapy was 8 months [6-29 months]. The outcome was favourable in 209 cases (98.1%). Three patients were dead (1.4%). There was one relapsing case (0.5%).

Conclusions: Extrapulmonary tuberculosis may affect children at an early age. Screening of children who are household contacts of TB cases is mandatory in order to reduce TB disease among children.

PV499 / #315

PURULENT PERICARDITIS WITH PNEUMOPERICARDIUM CAUSED BY STREPTOCOCCUS VIRIDANS.

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Background and Aims: Purulent pericarditis is defined as a localized infection of the pericardial space characterized by gross pus in the pericardium or microscopic purulence (>20 leukocytes per oil immersion field); purulent material in the pericardium is not synonymous with infectious pericarditis. It is a rare disease that can course with pneumopericardium. Intrapericardial fibrinolysis is a therapeutic possibility but in severe constrictive phase pericardiectomy should be indicated.

Methods: 70-year-old male with biological aortic valve replacement and coronary bypass in 2018. With 3-week abdominal pain, dysthermal sensation, vomiting and diarrhea. On examination, sweating with tachypnea, arrhythmic tones with systolic panfocal murmur. Painful abdomen without peritoneal irritation. Abdominal ultrasound and CT angiography performed without findings. Blood cultures were taken and started piperacillin tazobactam, isolating *Streptococcus viridans*. Transthoracic echocardiogram was performed without findings, transesophageal echocardiogram showed aortic perivalvular abscess. At 48 hours presented dyspnea with worsening of general condition, an urgent echocardiogram was performed with complicated endocarditis on aortic prosthetic valve, with aortic fistula to the right ventricle and pericardial effusion, exitus lethalis at 48 hours of cardiac drainage.

Results: Purulent pericarditis is a rare entity, characterized by purulent pericardial effusion caused by contiguity or blood spread. The clinical picture is very severe and usually evolves to cardiac tamponade. It is an entity with severe manifestations where an echocardiogram should be performed as soon as possible.

Conclusions: The diagnosis is based on purulent pericardial material; management requires surgical drainage and antibiotic treatment for 4 to 6 weeks. In severe constrictive phase pericardiectomy should be indicated.

PV500 / #335

“METASTATIC” TUBERCULOSIS

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Background and Aims: Disseminated tuberculosis is the result of hematogenous spread of *Mycobacterium tuberculosis*, leading to its presence in two or more non-contiguous sites. The clinical presentation is varied, depending on the affected organs, often delaying its diagnosis.

Methods: We present the case of an 86-year old male with prostate cancer, under surveillance since 2017, who was admitted in the emergency department for a 5 month-long history of febrile syndrome with fatigue, anorexia and weight loss, with chest pain and dry cough developing in the 2 weeks prior admission.

Results: Previous antibiotic course had already been prescribed, but with little symptomatic improvement. Follow-up abdominal CT scan had shown countless hepatic nodules and multiple peritoneal implants, compatible with secondary deposits. Peritoneal biopsy had been performed, documenting granulomas with central necrosis and multinucleated giant cells. Referral to an Infectiology consultation had been made for suspicion of tuberculosis, which was ruled out. The patient presented with fever, marbled skin and poorly perfused extremities. Blood tests revealed raised inflammation parameters. Chest X-ray was inconclusive. Blood cultures were negative. Chest CT showed multiple widespread small nodules with a centrolobular distribution. Bronchoscopic bronchoalveolar lavage (BAL) was performed. BAL fluid analysis was positive for *M. tuberculosis*. Head CT and lumbar puncture excluded CNS involvement. Anti-tuberculous drugs for disseminated tuberculosis were started with sustained decrease in inflammation parameters.

Conclusions: Disseminated TB is an important global health problem. Increased awareness of this disorder might improve clinicians' level of suspicion and lead to a prompt diagnosis.

PV501 / #341

MEDIASTINAL TUBERCULOUS LYMPHADENITIS: DIAGNOSIS OF A MEDIASTINAL MASS

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Background and Aims: Despite being common in immunocompromised patients, mediastinal tuberculous lymphadenitis is a rare condition in immunocompetent adults.

Methods: We present the case of a 41-year old female who was admitted in the emergency department with a 3 week-long history of dysphagia. Cough with blood-stained sputum, fatigue and a 10kg weight loss in the previous 6 months were also present.

Results: CT imaging of the chest revealed a 45x34x50mm right latero-tracheal heterogeneous mediastinal mass with a central necrotic area, suggestive of an adenopathic conglomerate; several other smaller mediastinal adenopathies were identified. HIV, HCV and AgHBs were negative, CRP 4.52mgdL⁻¹, interferon-gamma release assay (IGRA) <0.01IUmL⁻¹, sedimentation rate 26mmsec⁻¹ and beta-2 microglobulin 3.21µgmL⁻¹. Analysis of the sputum was negative for BAAR. Mediastinal lymph node biopsy was performed by EBUS. Pathologic analysis of the sample was consistent with necrotizing granulomatous lymphadenitis, in relation with numerous mycobacteria seen with Ziehl-Neelsen staining. PCR analysis of the sample was positive for *M. tuberculosis* and cultural examination in Lowenstein medium was also positive. Rifampicin resistance gene testing was negative. Anti-tuberculosis medication with ethambutol, isoniazid, pyrazinamide, rifampicin and pyridoxine was started with favourable clinical response.

Conclusions: Mediastinal lymph node involvement only accounts for 5% of reported tuberculous lymphadenitis sites. Mediastinal tuberculous lymphadenitis is a rare disease manifestation in immunocompetent adults and it should be considered in the differential diagnosis of mediastinal masses.

PV502 / #342

IMPORTANCE OF LEFT ATRIAL FUNCTION IN SEPTIC PATIENTS

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Background and Aims: Preload optimization has been mainly associated with fluid administration in septic shock patients. However, a variable fraction of the ventricular filling is provided by the atrial contraction. The aim of the study was to determine

atrial systolic function by evaluating the force of contraction and energy kinetics of the left atrium in patients with severe sepsis and / or septic shock.

Methods: Prospective-observational study. A total of 26-patients who met criteria for severe sepsis / septic shock were included and were evaluated during the first 24 hours of admission to the ICU. Likewise, 26 healthy volunteers with similar characteristics were selected for the comparison of Both groups. Atrial systolic function was assessed using kinetic energy and atrial ejection force by echocardiography. The study followed the considerations of the Declaration of Helsinki. Authorization was requested from the ethics and clinical-research committee of our Hospital, being approved.

Results: A total of 26-patients were recruited who were compared with a control group of healthy volunteers. The most frequent concomitant pathologies in septic patients: hypertension and type-2 DM. When performing echocardiography, 60% of the patients were receiving vasoactive medication. Main origins of sepsis: abdominal, respiratory and urological infection. Up to 43% of the patients presented left ventricular dysfunction (LVEF <50%). In septic patients, increased atrial systolic function was found, both in atrial contraction force as well as in kinetic energy.

Conclusions: During the initial stage of sepsis, septic patients showed increased atrial systolic function compared to healthy volunteers, evaluated by contraction force and atrial kinetic energy.

PV503 / #361

LYMPH NODE AND BONE TUBERCULOSIS: A CHALLENGE DIAGNOSIS

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Case Description: Male, 81 years old, with history of hypertension, gastritis and thrombocytopenia. Referred to the Internal Medicine consultation for asthenia, adynamia, weight loss (10kg in 4 months), and in the last 2 months fever of nocturnal predominance and hypersudorese. of the previously complementary exams performed, to emphasize, pancytopenia and in abdominal imaging multiple abdominal adenopathies. Therefore, patient was hospitalized, where fever and nocturnal hyperhidrosis were confirmed. A thoracic, abdominal and pelvic CT was performed and necrotic retrorectal, mesenteric, duodenal and retroperitoneal adenopathies and bone lesion in the sacral region were identified. So a lymph node biopsy was performed, only possible by laparoscopic surgery and a IGRA test was request, whose results were respectively granulomatous lymphadenitis with necrosis (Ziehl-Neelsen negative) and positivity. Thus, anti-tuberculous therapy was initiated (ethambutol, rifampicin, isoniazid and pyrazinamide), assuming a lymph node and bone tuberculosis. Two weeks after, clinical improvement was

observed. Therefore he was discharged, maintaining the follow-up in Internal Medicine consultation. One year later, abdominal and pelvic CT were repeated, where no adenopathies and bone lesion were identified.

Clinical Hypothesis: Tuberculosis was the most likely entety, given the clinic. However, other hypotheses have been raised, such neoplasms and other infectious diseases.

Diagnostic Pathways: The assessment of patients, should include a medical history, physical examination, laboratory and imaging studies and anatomopathology study.

Conclusion and Discussion: This case stands out, for presenting some of the most typical clinical findings of tuberculosis, however, with uncommon organ involvement with no lung injury. It is also worth noting, the excellent response to anti- tuberculous treatment, with full clinical recovery.

PV504 / #378

A VERTEBRAL LYTIC LESION AND A BACTERIAL CONFOUNDER

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Background and Aims: Vertebral lytic lesions are a relatively common finding, with a broad differential diagnosis.

Methods: We present an 81-year-old man referred to the emergency department with a one-week history of fever and a 6-months history of 10% weight loss, anorexia, fatigue and lower back pain. He had a skin abscess by *Cutibacterium acnes* in the infraclavicular notch surgically drained 16 months before and was treated with an 8-day course of amoxicilin/clavulanate. Computer tomography showed a lytic vertebral lesion on D7. Magnetic resonance (MRI) revealed decreased signal intensity in D6-7 vertebral bodies in T1 and increased in T2 and paravertebral and endocanal masses with ring enhancement. The disc was unaffected. Blood cultures were negative, HIV and multiple myeloma were excluded. Bone biopsy revealed a *Cutibacterium acnes*. Ziehl-Neelsen stain was negative. We started amoxicillin/clavulanate and clindamycin.

Results: After sixteen days, back pain was aggravating, and although there were no neurological deficits, MRI was repeated, revealing an increase in the paravertebral mass size, discitis and minimum spinal cord compression. He was submitted to surgical drainage, laminectomy and fixation. Shortly after, culture of bone biopsy identified a *Mycobacterium tuberculosis*. The diagnosis of Pott disease was established and we began isoniazid, rifampicin, pyrazinamide and ethambutol and completed 6 weeks-course of amoxicillin/clavulanate to treat the *Cutibacterium acnes*.

Conclusions: This case highlights the importance of excluding other etiologies when treatment of the agent identified is failing.

Tuberculosis is one of the differential diagnosis of destructive spinal processes, and although rare, Pott disease is treatable without sequelae when detected early.

PV505 / #386

INFECTIOUS ENDOCARDITIS IN AN INTERNAL MEDICINE DEPARTMENT

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Background and Aims: The objective of our study is to determine the particularities of IEs in an internal medicine department.

Methods: A retrospective and descriptive study, including records of patients hospitalized for IE from January 2015 to August 2020 in the internal medical department.

Results: Twenty-two patients were identified. These were 13 men and 9 women, the average age was 62.5 years [23-82]. Rheumatic fever was observed in 6 patients. Fever was present in 19 patients, cardiac murmur was present in 14 patients. An inflammatory syndrome was noted in 18 patients. Transthoracic cardiac ultrasound was performed in all cases while transesophageal cardiac ultrasound was performed in 10 cases. Endocarditis was severe from the outset in 5 patients with the presence of an abscess of the valve annulus in one case, a fistula of the left ventricle in one case, a left ventricle perforation in one case and an endocarditis on a pacing lead in one case. Blood cultures were positive in 9 cases. The most implicated germ was *Staphylococcus aureus*. The viral and Brucellian serologies requested were negative as well as the detection of AntiStreptolysine O. All the patients were put on antibiotics for a minimum period of 40 days. Surgical treatment was recommended in 8 cases. A secondary localization was discovered in 9 patients represented by renal or splenic abscess, renal or splenic infarction, mycotic aneurysm and sepsis.

Conclusions: IE was observed in an elderly population in our series with frequent complications. The positive diagnosis and treatment need to be early and in order to reduce the occurrence of complications and preserve a better prognosis.

PV506 / #398

THE INTOUCHABLES

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Background and Aims: Endocarditis is an infection of the endocardium, rare in patients of young age and without cardiovascular pathology, and more prominent in males. It can result from several causes and show various clinical forms. Atypical microorganisms are responsible for <5% of these conditions. Treatment is undertaken with directed antibiotics.

Methods: A 52-year-old male, shopkeeper and smoker developed anorexia, fatigue and weight loss throughout 1 month, associated with persistent fever and petechiae within the last week. The physical examination showed no other major changes, and blood analysis indicated leukocytosis and high CRP levels. Blood cultures were collected, and the patient was hospitalized for etiological study.

Results: The serologies undertaken turned positive for *Mycoplasma* and *Coxiella burnetti*, and levofloxacin was administered. The echocardiogram revealed the presence of thick vegetation in the aortic valve associated with severe aortic insufficiency. In this context, the patient was treated with empirical antibiotics, vancomycin and gentamicin, for 8 days, with improvement and subsequent transfer to cardiology care. On the 9th day of hospitalization, the blood cultures isolated HACEK sensitive to ceftriaxone. After the end of antibiotics, the patient underwent surgery with the placement of aortic prosthesis and an improvement of cardiac function and clinical condition was observed.

Conclusions: This clinical case alerts to the importance of knowing the microorganisms responsible for each pathology and recognizing the various possible clinical forms. Although the etiology for atypical agents is rare, it is essential to be perceptive to its existence in order to formulate the correct diagnosis and consequently the most appropriate treatment.

PV507 / #425

TUBERCULOUS MENINGITIS- THE APPROACH TO A DIFFICULT DIAGNOSIS

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Background and Aims: Tuberculosis is a high prevalent infection, being estimated that one third of global population is infected with latent TB. *Tuberculous meningitis* (TBM) has a typical subacute onset of unspecific symptoms and nowadays (as it's not commonly seen), the diagnosis is challenge and is associated to high morbidity and mortality.

Methods: Hereby we present a 84 year old female, admitted to our emergency department for altered mental status and mild fever. Her family reported a history of headache 2 weeks prior to admission. The patient presented with GCS 8, febrile, without neck stiffness.

Results: Laboratory exams presented hyponatremia (122mmol/L), and low C reactive protein level (0.9mg/dL). Non contrast CT scan showed moderate hydrocephallus, without any evidence of obstruction. Lumbar puncture was performed, revealing pleocytosis with lymphocytic predominance, hypoglycorrhachia and high level protein, therefore TBM became the main diagnostic hypothesis. Fast assessment diagnostic tools for *Micobacterium tuberculosis* were negative- PCR and Ziehl- Neelsen staining in CSF. However, considering the anamnesis and the highly suggestive CSF sample, the patient started HRZE. The diagnosis

was confirmed by isolation of the organism by culture of CSF 40 days after starting empirical treatment. By that time, the patient had partially recovered its neurological status.

Conclusions: This case reminds the importance of prompt treatment in cases of suspected TBM, despite no diagnostic confirmation. Since PCR and Ziehl-Neelsen staining in CSF have low sensitivity, treatment must be kept until confirming the diagnosis by the gold standard method, if the patient presents a good clinical response.

PV508 / #437

A RARE CAUSE OF PROLONGED FEVER: A REAL DIAGNOSTIC CHALLENGE

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Background and Aims: 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.

Methods: A 60-year-old Greek man with psoriatic arthritis treated with cortisone/IM methotrexate and hypertension, presented with prolonged fever for the last 2 months. Treatment with combination of antimicrobials was administered without recovery.

Results: The patient was febrile, unresponsive to NSAIDs and corticosteroids, while his physical examination was unremarkable. Blood chemistry revealed mildly elevated inflammation markers. No pathogen was isolated in multiple blood cultures and urine samples. On the 4th day of hospitalization, he experienced severe dyspnea; CTPA excluded pulmonary embolism, SARS-CoV-2-PCR testing was negative. He was initially treated with ceftriaxone/azithromycin, trimethoprim/sulfamethoxazole (TMP/SMX) and methylprednisolone for possible PCP infection. On the 15th day, antibiotic treatment was escalated due to clinical deterioration with need of non rebreather mask. Full body CT-scan revealed air bronchogram of the right lower lobe; bronchoscopy though could not be performed. Five days later, the patient showed spontaneous fever remission. Serological testing revealed positive IgG phase II antibodies (title 1:256) for *Coxiella burnetii*. TMP/SMX treatment was continued for 4 weeks. Repeated serological testing a month later was normal, while PET/CT-scan was unremarkable.

Conclusions: Q fever can manifest with a variety of clinical findings. Higher clinical suspicion is needed in patients with prolonged fever, especially those with immunosuppression.

PV509 / #444

SPONDYLODISCITIS AND CERVICAL SPINAL EPIDURAL ABSCESS FOLLOWING CORTICOSTEROID THERAPY FOR LOW BACK PAIN IN AN ELDERLY PATIENT

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Case Description: The aim of this report is to present a case of spinal infection in a patient under corticosteroid therapy, highlighting the importance of corticosteroid-induced immunosuppression. An 88-years old female patient with a history of hypertension, Parkinson's disease and urinary incontinence presented to the ER for acute dyspnoea, weakness and macroscopic haematuria. She also reported recent oral corticoid therapy for lower back pain and recent onset of therapy for urinary incontinence. On physical examination she presented hypotension, systolic murmur and localized back pain. Significant high inflammation markers, pyuria, active urinary sediment and hepatomegaly were observed.

Clinical Hypothesis: Due to the above clinical and laboratory findings, the patient was investigated extensively for infections of the abdomen, CNS and for infective endocarditis, that were negative.

Diagnostic Pathways: During her hospitalization, a lumbar spine MRI revealed an L5-S1 epidural abscess with spondylodiscitis. A CT guided bone puncture was performed, with negative culture and histological exam. Blood cultures were negative and colonoscopy revealed diverticulosis. Treatment with empirical antibiotic regimen for six weeks achieved clinical and laboratory improvement.

Conclusion and Discussion: Almost one half of cases of spinal epidural abscesses have a delayed diagnosis or are misdiagnosed. Thus, physicians need to search for spinal infections in older patients with chronic or acute unspecific low back pain, especially in coexistence of immunosuppression.

PV510 / #447

WHEN AGE DECEIVES

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Background and Aims: Cutaneous blisters occur in a wide range of pathologies, from autoimmune diseases to infections.

Methods: Case Report.

Results: 79-year-old woman, institutionalized. Personal history of dementia and ischemic heart failure, with 3rd grade sacred pressure ulcer. Medicated with sitagliptin/metformin hydrochloride for type 2 diabetes mellitus. No recent infection or medication change. Patient in the ER with complaints of

skin lesions with 7 days evolution, with pruritus, initially on the neck. No improvement after bilastine and dexpanthenol. On examination, no fever. Cachexia, tense cutaneous bullae, some with yellow-fluid, and different size erythematous lesions, some haemorrhagic, other with crusts. Neck, upper trunk and upper extremities affected, without involvement of the face and mucosae. On analysis, 6.8×10^3 /uL leukocytes, CRP of 6.4 mg/dl. Diagnostic workup showed a VS of 41 mm/1^h, anti-BP230, anti-BP180 and anti-desmoglein autoantibodies negative, with normal immunoglobulins A, M and G, no complement consumption, ANCA <1:2 and negative screening for ANAs. Thoracoabdominopelvic CT revealed no suspected neoplastic lesions. Prednisolone 40 mg and antihistamine were initiated. No microbiologic isolations were made. Discharge after skin punch biopsy, improvement of the pruritus and signs of lesion healing, with prednisolone 30 mg. On short-term outpatient re-evaluation, no lesions were found, old or new. Anatomopathological study was compatible with bullous impetigo.

Conclusions: Bullous impetigo is an infectious disease, most frequently occurring in neonates and children. Its differential diagnosis includes bullous pemphigoid, most commonly arising in older adults. This aims to emphasize the importance of considering all differential diagnosis of diseases, even when the presentation is not the most expected.

PV511 / #454

AA AMYLOIDOSIS SECONDARY TO PULMONARY TUBERCULOSIS

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Case Description: 40-year-old male patient admitted for cough, dyspnoea and weight loss with 3 months of evolution. He had a precarious social condition, being a homeless man and a drug addict (heroin). The chest X-ray, which revealed extensive cavitation in the right upper and middle lobes, raised the suspicion of pulmonary tuberculosis, which was confirmed after the isolation of *Mycobacterium tuberculosis* in the sputum. Appropriate treatment was initiated. Shortly after, he developed marked pedal edema, associated with nephrotic proteinuria.

Clinical hypothesis: Given the recent diagnosis of pulmonary tuberculosis, two clinical hypothesis were considered: urogenital tuberculosis and AA amyloidosis.

Diagnostic pathways: Renal function tests were within the normal range. The urogenital CT scan revealed enlarged kidneys, without other abnormalities. The urine mycobacterial smear and culture was negative. After exclusion of renal tuberculous involvement, we considered secondary AA amyloidosis as the most likely diagnosis. Unfortunately, a renal biopsy was not performed.

Conclusion and Discussion: Secondary amyloidosis is a complication that can arise from chronic inflammatory conditions, like malignancy, infectious process, autoimmune disorders, among

others. Renal amyloidosis can complicate pulmonary tuberculosis, and the triad of pedal edema, proteinuria and enlarged kidneys should raise the suspicion for this condition.

PV512 / #457

INFECTION IN OLD AGE: ETIOLOGIES AND EVOLUTION IN AN INTERNAL MEDICINE DEPARTMENT

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Background and Aims: Infectious pathologies are frequent in old patients and represent a major source of morbidity and mortality. The objective of our work is to describe the etiological profile and outcome of infections in old patients in an internal medicine ward.

Methods: A retrospective and descriptive study that includes patients 65 years and older hospitalized in the internal medicine for an infectious disease, from January 2015 to August 2020.

Results: Our study included 167 old patients: 85 men (50.9%) and 82 women (49.1%). The mean age was 74 years \pm 6.7 (65-93). 120 patients (72.4%) had comorbidities: hypertension (53.9%), diabetes (41.9%), renal failure (16.2%), stroke (11.4%), chronic bronchitis (3.6%), bronchiectasis (1.8%), neoplasm (1.8%), Horton's disease (0.6%), rhizomelic polyosteoarthritis (0.6%), systemic lupus erythematosus (0.6%), sarcoidosis (0.6%), rheumatoid arthritis (0.6%). Six patients were on corticosteroids. The different infections identified were: a non-necrotizing dermatomyositis (47.3%), an acute pyelonephritis (35.9%), pneumopathy (9.6%), a sepsis of a digestive origin (2.4%), a meningitis (1.2%), pulmonary tuberculosis (1.2%), infectious spondylodiscitis (1.2%), necrotizing fasciitis (1.2%), face cellulitis (1.2%), rickettsiosis (1.2%) and an ophthalmic zoster (1.2%). The outcome was favorable in 98.8% of cases. 2 patients were transferred to the intensive care unit. We report no deaths in this series.

Conclusions: In our series of patients, non-necrotizing dermatomyositis was the most frequent infection. An early and adequate care of different infections in old patients is indispensable to prevent complications, guarantee a better prognosis and a better quality of life.

PV513 / #473

GUTTATE PSORIASIS AND RICKETTSIOSIS – COINCIDENCE

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Background and Aims: Guttate psoriasis is the second most common form of psoriasis. The disease onset is unclear, being

the interplay between genetic predisposition and environmental triggers the currently accepted mechanism. Amongst the triggers, streptococcal pharyngitis has the better-established causal nexus, with cutaneous manifestations appearing by the second to third week after the initial infection. Although infections are recognized triggers, only Streptococcal, *Varicella*, and *Pityrosporum* infections have proven association with the disease.

Methods: A 35-year healthy woman presented in the emergency room with a two-day fever, painful throat swelling and an erythematous-desquamative eruption.

Results: The blood work was unremarkable except for elevated rickettsia IgM antibodies (IgM 1/640) and antistreptolysin O (ASO) titer (215 UI/mL). The cervical CT performed identified cervical adenopathies bilaterally, one of them (3.9x2.5 cm) with necrotic areas. Both cutaneous tissue and adenopathies biopsies were performed, confirming the guttate psoriasis diagnosis. The treatment was oral doxycycline 100 mg 4 id for 7 days, with lymph nodes reduction and clinical resolution.

Conclusions: The clinical anamnesis identified an odyphagia episode one week before the clinical onset. An elevated ASO titer confirmed the past streptococcal infection. The rickettsial serum titers suggest a possible relation with the Guttate psoriasis beginning. In endemic areas, the differential diagnosis of patients with adenopathy, fever, and cutaneous rash should include skin reactions (Guttate psoriasis) as well as rickettsial infections.

PV514 / #478

DISSEMINATED HISTOPLASMOSIS IN A IMMUNOCOMPETENT PATIENT: A CASE REPORT

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Background and Aims: Histoplasmosis is a systemic mycosis caused by *Histoplasma capsulatum*, whose natural habitat is soil contaminated by bat or bird excrements. In Brazil, the state of Rio de Janeiro is considered an endemic area of this disease. Histoplasmosis usually affect paciente with some kind of immunodeficiency. However cases in immunocompetent patients can still occur. The response to infection depends upon the size of infectious inoculum, type of exposure and the underlying health of the patient. The aim of this case report is to describe a case of Disseminated Histoplasmosis (DH) in a young doctor.

Methods: A review of Disseminated Histoplasmosis was conducted in bibliographic databases, comparing it to the case reported

Results: A 28 years old man, from Rio de Janeiro was admitted in with a 4 weeks history of persistent dry cough, low fever, malaise and weight loss. He was treated with Levofloxacin without improvement. Physical examination revealed a non tender cervical lymphadenomegaly, fine crackles on the right lung and hepatosplenomegaly. A series of laboratory tests were performed, excluding *Epstein-Barr virus*, *Human Immunodeficiency Virus*, Tuberculosis and Aspergillosis. Computed tomography scans detected an irregular nodular lesion in the inferior right lung, lymphadenopathy in the right hilo, hepatosplenomegaly and retroperitoneal lymphadenomegaly. Liver enzymes were elevated and complement fixation for histoplasmosis were positive. Treatment with itraconazole begun and the paciente improved after 7 days, normalizing liver enzymes after 4 weeks.

Conclusions: Due to its non-specific symptoms and likeness to other chronic infection, Histoplasmosis can be misdiagnosed, especially in immunocompetent patients in urban areas

PV515 / #484

NECROTIZING FASCITIS OF UNCLEARED ETIOLOGY

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Case Description: A 61-year-old man presented jaw pain and right periorbital edema which extended to the cervicothoracic region of twelve hours of evolution. No relevant epidemiological or recent infectious facts were highlighted. Initially, he was treated with amoxicillin-clavulanate and methylprednisolone without clinical improvement, requiring hospitalization a week later due to worsening of lesions, necrosis in the periorbital region (*Figure #484a*) and signs of sepsis, starting treatment with Meropenem and Linezolid.



#484 Figure A



#484 Figure B

Clinical Hypothesis: Clinically he was afebrile and normotensive without neurological deficits. Edema could be evidenced in the right hemiface and in cervical region (Figure #484b). In the right periocular area a black scab adhered to skin with no purulent discharge was evidenced. No vesicles, blisters or pinna lesions were seen.

Diagnostic Pathways: Analytically leukocytosis and thrombocytosis with high procalcitonin and lactate values were evidenced. Hepatotropic virus and human immunodeficiency virus serology were analysed, all resulting negative. A CT of skull and neck showed cellulitis and superficial fasciitis with necrosis. Surgical debridement was carried out and samples for culture, which turned out negative, were taken. Necrotizing fasciitis (NF) without proven microbiological etiology was concluded as diagnosis considering clinical and radiologic findings.

Conclusion and Discussion: NF is a quick progressive skin and soft tissue infection, associated with destruction and necrosis of fascia and fat, which is accompanied by important systemic toxicity and high mortality. The presence of fascial necrosis is the defining condition of the disease. FN is the most serious form of soft tissue infection and its prognosis depends on an early diagnosis and immediate aggressive treatment.

PV516 / #489

RENAL INFARCTIONS

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Case Description: A 42-year-old male presents sudden development of umbilical and right iliac fossa pain, with irradiation to the back. Within his personal background he highlights being an important smoker and bilateral inguinal hernia surgery four years ago.

Clinical Hypothesis: Clinically he was afebrile and normotensive. No goiter or palpable adenopathies. No carotid or abdominal

murmur. Rhythmic heart with dubious aortic murmur, preserved vesicular murmur. Soft abdomen, painful on right iliac fossa palpation, without peritonism, and water-air noises present. Limbs without edema or signs of thromboembolic disease. Blood test, including liver profile and acute phase reactants, within normal values. Urine sediment normal. Electrocardiogram in sinus rhythm. Chest and abdomen X-ray and abdominal ultrasound without pathological data.

Diagnostic Pathways: The possible diagnoses that we considered were:

- Surgical flanges after bilateral inguinal hernia intervention.
- Nephritic colic, because of its location, even if no renal lithiasis or microhematuria were observed.
- Acute diverticulitis perforation, because of the intense pain and its location (referred pain).
- Thrombosis in unusual territories.

Abdominal CT was performed, detecting right kidney coneiform-looking repletion defects, compatible with renal infarctions. Further investigations were conducted for etiological diagnosis of this pathology: renal angiography, thrombophilia study, JAK2, HPN, autoimmunity, transthoracic echocardiography, and CT-TAP (to rule out neoplasms). Fibromuscular dysplasia was found at the renal level.

Conclusion and Discussion: Renal infarctions are underdiagnosed because of its non-specific clinic. It is important to differentiate primary from secondary causes, for management and early prevention of its main complications like renal failure and refractory HTA.

PV517 / #492

A CASE OF FEVER WITH TEMPERATURE-PULSE DISSOCIATION

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Background and Aims: Evaluation of fever of unknown origin must start with careful history taking and identification of potential diagnostic clues.

Methods: A 60-years-old male, with no relevant past medical history, who lives on a farm with contact with chicken, parrots and cats presented in the emergency department with fever (maximum tympanic temperature of 39 degrees Celsius) with no chronological pattern a nocturnal diaphoresis with a duration of 14 days.

Results: Initial investigation presented an elevation of inflammatory parameters (a C-reactive protein 20 mg/dL), an acute kidney injury with serum creatinine 1.58 mg/dL and BUN 60 mg/dL with no alteration on urinalysis, mild hyponatraemia of 134 mEq/L and hyperkalemia of 5.43 mEq/L. A discrete elevation of the right diaphragmatic cupula was noticed on chest x-ray. Furthermore, during the admission the patient demonstrated a temperature-pulse dissociation with a relative bradycardia in

association with fever, also known as Faget sign. Additional studies directed to the study of fever of unknown origin were performed and the chest CT revealed a ground-glass opacification in the low inferior right pulmonary lobe. *Chlamydomphila psittaci* antibodies and DNA *C. psittaci* (Polymerase chain reaction test) was ordered, and the patient initiated treatment assuming Psittacosis with fever resolution within 48 hours. Both tests were positive with a high titer.

Conclusions: Relative bradycardia is an important diagnostic finding in a variety of infectious diseases and may be used to differentiate infectious diseases in selected clinical situations, this phenomenon is also present in other non-infectious causes.

PV518 / #494

A CASE OF PERITONEAL TUBERCULOMATOSIS

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Background and Aims: Tuberculous peritonitis is an uncommon presentation of extrapulmonary tuberculosis that usually occurs coupled with further organic involvement. In some cases, nodular formations called tuberculomas develop that may be mistaken for malignancy.

Methods: We present a case of disseminated tuberculosis that showed overlapping manifestations to those of peritoneal carcinomatosis.

Results: A 24-year-old patient presented to the emergency department with a 6-month history of abdominal pain, fever with nocturnal predominance, nighttime sweating, fatigue, dizziness, anorexia and weight loss. A chest CT scan showing tree-in-bud sign, centroacinar nodules and mediastinal lymphadenopathy was suggestive of tuberculosis with likely endobronchial dissemination, however an abdominal CT scan revealed multiple nodular lesions dispersed throughout the peritoneum, small ascites and intra-abdominal lymphadenopathy, findings suggestive of peritoneal carcinomatosis. An exploratory laparoscopy showed the same nodular lesions. The biopsy demonstrated granulomatous inflammation and necrosis. Fiberoptic bronchoscopy was performed; biopsy of mediastinal ganglia showed a necrotizing lymphadenitis and PCR of collected bronchial secretions was positive for *Mycobacterium tuberculosis* (MT). Treatment was started with first-line antituberculosis drugs. After discharge, culture of the bronchoalveolar lavage and peritoneal tuberculomas was positive for MT. The patient showed remarkable clinical and radiological improvement.

Conclusions: We presented a case of disseminated tuberculosis with multiple peritoneal tuberculomas. The clinical presentation, jointly with the radiological findings, strikingly resembled a disseminated malignancy. This case highlights the importance of

keeping a high index of suspicion for tuberculosis in compatible clinical pictures, even when alternative diagnoses may seem likely.

PV519 / #495

PLEURAL TUBERCULOSIS – IS THERE ROOM FOR EMPIRICAL TREATMENT?

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Background and Aims: Pleural tuberculosis (TB) remains a frequent cause of pleural effusion, particularly in TB-endemic areas. Despite the final diagnosis is made by identification of *Mycobacterium Tuberculosis* (MT) in pleural fluid or biopsy, a presumptive diagnosis can be made in the setting of high clinical suspicion, lymphocytic-to-neutrophil ratio (L/N) >0.75 and adenosine deaminase (ADA) >40 units/L in pleural fluid or through the identification of caseating granulomas on pleural biopsy.

Methods: A 45-year-old Brazilian woman living in Portugal was admitted with pleuritic pain in the right hypochondriac region, asthenia and fever in the previous month. On admission, the patient was haemodynamically stable, febrile, eupneic without hypoxemia and with decreased pulmonary sounds in the right lung base. Blood analysis revealed high CRP (171.2 mg/L) and ESR (64 mm/h) and normal hemogram, chemistry and coagulation. Chest radiograph showed a right pleural effusion. Pleural fluid analysis showed a non-complicated exudate with a L/N ratio=0.8, ADA=36.7 units/L with negative bacterial and mycobacterial cultures, nucleic acid amplification (NAA) test and direct exam for MT. Further investigation revealed no evidence of malignancy, bacterial, viral or fungal infection (including *Histoplasma capsulatum* serology) or autoimmune disease.

Results: Pleural biopsy showed caseating granulomas. Antituberculous therapy was initiated with clinical improvement. The late mycobacterial culture in pleural biopsy confirmed the diagnosis.

Conclusions: The authors highlight the role of tuberculosis presumptive diagnosis as a way of initiating prompt treatment without neglecting the importance of MT isolation for proper drug susceptibility testing. Given the epidemiologic context and findings of caseating granulomas, antituberculous treatment was appropriately initiated in this case.

PV520 / #498

MEDIASTINAL LYMPHADENOPATHIES AND SPINAL OSTEOLYTIC LESIONS – READING BETWEEN THE LINES

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Background and Aims: Osteolytic lesions are an entity that fits a wide variety of differential diagnosis. Examples include metastatic tumors, metabolic bone diseases, lymphomas and infections. (Subramanian & Viswanathan, 2019) Mediastinal masses like lytic lesions, can be incidental findings in routine exams and data like location, growth speed and associated illnesses can indicate certain disorders. (F. Berry, 2020)

Methods: 35 year old healthy woman was admitted to the emergency department with fever, lumbar pain, dysuria and a 5 Kg weight loss, spanning over 3 weeks. Other systemic or organ related complaints were denied. On admission she was hypotensive and tachycardic, had right murphy's sign and petechiae on her upper and lower limbs.

Results: Blood tests showed microcytic hypochromic anemia, c-reactive protein of 89.5 mg/L and D-Dimer count of 1707 ng/mL. Serologies for viral hepatitis, HIV and auto-immunity were negative. Computed tomography showed two voluminous mediastinal, one right supraclavicular and retroperitoneal lymphadenopathies and bilateral pyelonephritis. Positron emission tomography disclosed high metabolic activity in the supra and infra-diaphragmatic ganglia and spine, with osteolysis in D11, L3 and S2. Ganglia and spinal biopsy revealed granulomatous lymphadenitis with necrosis. Koch's bacillus growth was present in ganglia culture. Tuberculostatics were initiated with favorable outcome.

Conclusions: According to a recent case review, back pain and constitutional symptoms, particularly significant weight loss, were common in spinal tuberculosis. (Louw, Tawa, Van Niekerk, Conradie, & Coetzee, 2019) Our patient had continuous back pain even after treatment for pyelonephritis. This case shows that even with mediastinal lymphadenopathies and lytic lesions, a diagnosis other than malignancy must be considered.

PV521 / #508

WHAT IF RICKETTSIOSIS AFFECTED THE HEART: ABOUT THREE CASES OF MYOCARDITIS

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Background and Aims: Mediterranean spotted fever is an eruptive fever caused by *Rickettsia conorii*. Its evolution is usually

favorable. However, malignant forms with cardiac involvement have been exceptionally described. Our objective is to detail the diagnosis and therapeutic approach of this infection.

Methods: This is a retrospective study, including cases of myocarditis secondary to Rickettsial infection hospitalized in the infectious disease department of Sfax between 2013 and 2018.

Results: Three cases of myocarditis were collected, with an average age of 36 years. Only one patient had a history of cardiac surgery in childhood. Rural origin and contact with animals were found in 100% of cases. Two patients were hospitalized for management of a rash suggestive of FBM and one patient for meningitis. Cardiac auscultation revealed tachycardia in all cases. Only one patient reported chest pain. All patients had a pathological ECG (right bundle branch block, inverted T waves, arrhythmia). Transthoracic ultrasound was pathological in all cases (low left ventricular ejection fraction in 2 cases, hyperechoic thickened left ventricular walls in 2 cases, left ventricular dilation in one case). Two patients had elevated troponins. The diagnosis of FBM was confirmed by serology. All patients were treated with doxycyclines for 14 days. Diuretics have been prescribed for one patient. Cardiologically, the outcome was good in all cases. One patient presented with fingers' gangrene and required amputation.

Conclusions: Rickettsial infections can present with diverse manifestations. Even the patients with severe organ involvements such as myocarditis can be completely cured if timely identified and treated.

PV522 / #510

LEPTOSPIROSIS: A TRIGGER TO CRYOGLOBULINAEMIC VASCULITIS

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Background and Aims: Leptospirosis is mostly self-limited, however occasionally it leads to severe and potentially fatal manifestations. Cryoglobulinaemic vasculitis is often related to *Hepatitis C virus* (HCV). Although, the pathogenesis is poorly understood, it is believed that environmental triggers can initiate it.

Methods: Case report of a patient admitted to the internal medicine ward.

Results: 57-year-old male admitted with sepsis with multiorgan dysfunction. History of fever, jaundice, and abdominal pain within the previous two weeks. Prior intravenous drug dependency (sober for 20 years) and alcohol consumption (45 grams per day); frequent contact with wild animals and tick bite in the week preceding. Brother was admitted the former week with leptospirosis. At admission, he was febrile; analytically with anaemia, leucocytosis and positive procalcitonin, hyperbilirubinemia, hyponatremia, and acute renal lesion. Computed Tomography scan showed hepatomegaly. Empirical antibiotics were started; latter

immunological study indicated Leptospirosis (*Leptospira* IgM positive; *Rickettsia* serologies suggesting previous infection). Additionally, positive HCV study. Although the evolution was favourable, the patient remained febrile, and procalcitonin was still positive after 2 weeks, repeated septic screening negative. Furthermore, livedo reticularis appeared. Equated then the hypothesis of cryoglobulinemia, caused by HCV activation. Corticosteroids were started, with a favourable evolution; later cryoglobulinemia positive. He was discharged and at subsequent evaluation, he was completely recovered, while maintaining progressively lower doses of corticosteroids.

Conclusions: Leptospirosis should be suspected based on epidemiological context. Although, the immune phase of Leptospirosis can cause a multitude of symptoms, cryoglobulinemia is not described, which supports the hypothesis of simultaneous HCV activation caused by the systemic infection.

PV523 / #520

RIGHT-SIDED NATIVE VALVE INFECTIVE ENDOCARDITIS: A CASE REPORT

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Background and Aims: Infective endocarditis is associated with high morbidity and mortality. Most cases occur in the left-sided heart chambers. However, right-sided valve endocarditis accounts for 5-10% of cases, being more frequent among heart device carriers and intravenous drug abusers.

Methods: Case Report.

Results: We present the case of a 38-year-old male with history of abuse of cocaine/heroin and pulmonary tuberculosis. He presented to the emergency department with shortness of breath, cough and left gluteal pain for 7 days. He was awake with normal awareness. SpO₂ 85%, BP95/50 mmHg; HR 120/min; T 38.7°C. He had decreased breath sounds over lung bases and a systolic murmur all over the precordial area. He also had a tender mass in the left gluteal area. Several skin lesions of IV drug use were identified. Biochemistry revealed elevated inflammatory markers. Sputum was bacilli negative. Pelvic CT revealed an abscess. Chest CT showed pulmonary lesions with small cavities. On echocardiogram, we found a 28mm vegetation attached to the tricuspid valve (the pulmonary lesions were probably septic emboli). We empirically started the patient on vancomycin+gentamycin. An MSSA was isolated from blood cultures – antibiotic switch to flucloxacillin. In the following 4 weeks, the patient experienced a favourable response. Transesophageal echocardiogram revealed a reduction in the size of the vegetations and severe tricuspid regurgitation.

Conclusions: Patient's prognosis is related to several variables. Continuous IV drug use is associated with endocarditis recurrence. In the future, surgical valve replacement may be necessary (right heart failure or recurrent embolization). Patient's education is at least as important as the best medical treatment.

PV524 / #535

ESCHAR: A PATHOGNOMIC SIGN OF SCRUB TYPHUS

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Background and Aims: The presence of an eschar has been attributed to be the most pathognomic sign of scrub typhus. It appears as a black-necrotic lesion or a cigarette burn-like lesion, typically painless and non-pruritic, commonly seen over the abdomen, genitalia, axillary folds, and the chest. It represents the site of chigger bite and is the region of initial multiplication of the parasite *O. tsutsugamushi* before it disseminates into the bloodstream and lymphatics.

Methods: A 57-year-old male, presented with acute onset of fever, jaundice, reduced urine output and bilateral pedal edema. Jaundice was noticed as yellowish discoloration of sclera and urine. He had history of travel to a remote forest district in India the previous month and reported exposure to ticks and mosquitoes. On examination, pallor and icterus were present along with bilateral inguinal lymphadenopathy and hepatomegaly. Abdominal inspection revealed a black necrotic eschar in the periumbilical region, classically suggestive of a chigger bite. Workup for tropical infections was done and scrub typhus immune-chromatographic test was reported to be positive and a diagnosis of scrub typhus was made.

Conclusions: Patients with scrub typhus can have many varied presentations. Early recognition of eschar aids in quicker administration of medical therapy, leading to a milder form of illness. Therefore, an emphasis on thorough clinical examination, especially of hidden areas such as axillae, groin and postaural region to search for presence of an eschar is vital for prompt diagnosis and early institution of therapy.



#535 Figure: Pathognomic eschar with central necrotic crust surrounded by erythema and whitish scaling.

PV525 / #547

KAP SURVEY OF PRACTICING DOCTORS ON ANTIMICROBIAL STEWARDSHIP BASED ON OPENWHO COURSE

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Background and Aims: The overwhelming, irrational behaviour of using antimicrobials (AM) has added to the amplification and spread of antimicrobial resistance (AMR) burden. Keeping this in view WHO has laid down free online availability of openWHO courses. The study aimed at accessing the knowledge, attitude, and practices of doctors towards antimicrobial stewardship in a tertiary care hospital.

Methods: The study was conducted among clinical practitioners (faculty, senior residents, junior residents) in different clinical departments. Study was designed as a knowledge, attitude, and practice (KAP) observational study. A validated self-administered questionnaire was designed and shared among 200 participants through mail and physically. 125 doctors participated in the study. Apart from observing knowledge/attitude/practice gaps, difference in response to questions was evaluated between various groups.

Results: Response rate was 62.5% (n=200). Knowledge of AMS was observed among physicians' with >50% near correct responses in each question except for the question asking on IV route of AM administration. A significant knowledge gap was found when comparison was made between faculty members, senior residents, and junior residents ($p < 0.001$) in spectrum of activity of AM. Almost all the participants agreed that ASP is a necessity in the hospital and believed that ASP reduces healthcare cost and adverse effects of inappropriate AM prescription.

Conclusions: Knowledge gap on ASP is observed among all HCPs but significant differences among faculty, senior residents, and junior residents, among openWHO course vs unaware openWHO course participant. This shows faculty has to take the lead.

PV526 / #560

KAPOSI'S SARCOMA : A REVEALING FORM OF HIV INFECTION

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Background and Aims: Kaposi's sarcoma (KS) is a frequently revealing form of HIV infection. Visceral forms are correlated with immune deficiency and are causes of death. The aim of our study is to describe the particularities of this infection.

Methods: We reported the cases of KS in HIV-infected people, followed in the infectious diseases department of the Hedi Chaker CHU in Sfax, Tunisia.



#560 Figure A



#560 Figure B

Results: We have collected five cases. All cases were male with an average age of 34 years. The CD4 count was less than 100 cells/mm³. An opportunistic infection was found in three patients (two neuro-meningeal cryptococcosis). Skin lesions were typical: discreetly infiltrated reddish or purpuric macules, occurred on the face, trunk and limbs.

Other visceral locations were found in two patients (lungs and lymph node). Biopsy was performed, confirming the diagnosis in two cases. (Skin and lymph node). No specific treatment for KS has been administered, especially for pulmonary form. For isolated cutaneous forms, the treatment was based on antiretroviral therapy (ARV). Death occurred in three cases: related to



#560 Figure C

pulmonary Kaposi (1 case), macrophagic activation syndrome (1 case), and cryptococcosis in the last case. For the remaining cases, ARV was introduced in one patient and led to the regression of skin lesions and lymphadenopathy.

Conclusions: Kaposi disease is one of the first recognized opportunistic diseases of AIDS and the cutaneous form is often revealing. In localized forms, antiretrovirals help stabilize the lesions without the need for chemotherapy. Thus, the importance of urgently introducing antiretroviral therapy.

PV527 / #569

FUNGAL SPONDYLODISCITIS DUE TO CANDIDA ALBICANS IN AN IMMUNOCOMPETENT WOMAN

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Background and Aims: Spondylodiscitis is the infection of the extra-dural components of the spine, involving the vertebral bodies and intervertebral discs. *Candida albicans* is a fungus prevalent in the human microbiota, mainly in the gastrointestinal and urinary tract. Changes in the host immunity result in an overgrowth of this fungus, which can culminate in its hematogenic spread.

Methods: A 56-years-old woman present to the emergency department with low back pain. The only associated symptom was fever. She had past history of an hospitalization for bacteremia by

Candida albicans eleven months before. At physical examination, she had a body temperature of 38.9°C, pain with lateral rotation of the trunk and a positive Lasegue test.

Results: Blood tests showed an elevation of C-reactive protein to 117.7 mg/L and an erythrocyte sedimentation rate elevation to 77 mm/1st hour. The results of the blood cultures were positive for *Candida albicans*. An MRI scan of the spine was performed suggesting a possible infectious process. Fluconazole 400 mg/day intravenous (IV) was started for two weeks and subsequently changed to an oral maintenance dose for 6 months.

Conclusions: Spine infections are a serious problem, requiring aggressive treatment. The most frequently associated fungus is *Candida albicans* and the most common route is hematogenic spread. The diagnosis is confirmed by MRI scan of the spine, however, blood cultures and biopsies can also be useful. If the patient is stable with controlled symptoms, treatment should only be started when the etiologic agent is isolated in the cultures.

PV528 / #579

HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS SECONDARY TO INFECTIOUS DISEASES

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Background and Aims: Haemophagocytic lymphohistiocytosis (HLH) is a severe hyperinflammatory condition that occurs in association with infections, autoimmune disorder or malignancy. We aimed to study the peculiarities of infection associated-HLH and its clinical, laboratory and therapeutic features among children and adults.

Methods: We conducted a retrospective study including all patients hospitalized in Pediatric and Infectious diseases Department with confirmed diagnosis of infection associated-HLH between 2011 and 2019.

Results: We enrolled 21 patients with infection associated HLH, among whom 13 cases were males (61.9%). We identified 15 children and 6 adults. The median age was 14 years [1-65 years]. Physical examination showed splenomegaly in 17 cases (80.9%) and hepatomegaly in 10 cases (47.6%). Regarding laboratory examinations, anemia and elevated ferritin levels were noted in all cases. Bone marrow aspiration showed images of haemophagocytosis in all cases. The infection involved was bacterial in 11 cases (52.3%), parasitic in 7 cases (33.3%) and viral in 3 cases (14.3%). All patients received symptomatic and/or etiological treatment. Specific treatment with corticosteroids and human immunoglobulins were used in 7 cases (36.8%). The outcome was favorable in 52.4% and death occurred in 47.6% due to multiple organ failure.

Conclusions: Infection associated HLH is a rare life-threatening syndrome. Its prognosis depends on the underlying etiology. Prompt diagnosis and treatment are crucial in order to improve the outcome.

PV529 / #580

HERPES ZOSTER OPHTHALMICUS

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Background and Aims: Herpes zoster is caused by reactivation of latent VZV. A viral prodrome is usual, composed by headache, malaise, photophobia, pain and paresthesias. The rash presents in one or two adjacent dermatomes on the thorax or face, does not cross the midline of the body and it appears as clusters of vesicles and papules on an erythematous base. Numerous neurologic complications have been described to occur with Herpes zoster, including the Ramsay Hunt syndrome, transverse myelitis, Bell's palsy, transient ischemic attacks, and stroke. Furthermore, ophthalmologic complications can occur in the V1 distribution of the trigeminal nerve, leading to keratitis, uveitis, scleritis, and acute retinal necrosis.

Methods: 62-year-old man, with history of chronic kidney failure and type 2 diabetes presented to the emergency department with visual impairment on the right eye, associated with pain, edema and a painful rash on the right fronto-parietal region. On physical examination, exorbitant periorbital edema on the right side.

Results: After ophthalmological consultation, the patient was admitted for ophthalmic herpes zoster-associated kerato-uveitis and underwent treatment with valaciclovir and analgesia. During hospitalization, the patient presented significant improvement of the symptoms, maintaining postherpetic neuralgia by the time of discharge. Ophthalmology follow-up was scheduled.

Conclusions: Herpes zoster is an opportunistic reactivation that occurs when the immunity of previous inoculation or native immune response decreases. Advancing age is the one of the most important risk factors, particularly in the immunocompetent patient. It is extremely important careful physical examination to possibly reveal one of the many possible complications of the disease.

PV530 / #597

PECULIARITIES OF MULTIFOCAL TUBERCULOSIS: ABOUT 76 CASES

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Background and Aims: Multifocal tuberculosis (MFT) defined as the involvement of two or more non-contiguous tuberculous sites is a rare but serious form of tuberculosis. The aim of our work is to specify clinical, microbiological, therapeutic and evolutionary characteristics of MFT.

Methods: We conducted a retrospective study including all patients hospitalized in the infectious diseases department with the diagnosis of MFT between 1992 and 2019.

Results: We enrolled 76 patients (22 men and 54 women) with a mean age of 38.4 [13-73] years. Immunosuppression was noted in 20 cases including retroviral infection in 7 cases. We counted 37 pleuropulmonary and 171 extra-pulmonary localizations. The lymph node was the most frequent extra-pulmonary localization (25.5%) followed by neuro-meningeal (10.1%), peritoneal and urogenital (9.6%). Among our patients, 51.3% had double tuberculous sites, 32.8% had triple sites and 15.78% had 4 or more sites. The clinical manifestations were dominated by general signs (fever in 52 cases and deterioration of general condition in 43 cases). The diagnosis was retained after bacteriological results (45 cases), histological features (28 cases) or a cluster of clinical, radiological suggestive evidence with therapeutic evidence (3 cases). All patients received antitubercular treatment with a mean duration of 11.9 [1-28] months. Surgical treatment was associated in 6 patients. Total recovery was achieved in 64.4% and the death rate was 7.8%.

Conclusions: All tuberculous localizations should be sought in front of an evocative manifestation in order to adapt the treatment and improve the prognosis of this severe form of tuberculosis.

PV531 / #604

INFECTIOUS SACROILIITIS

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Background and Aims: Infectious sacroiliitis (ISI) is relatively rare. The diagnosis is difficult due to its clinical heterogeneity and the lack of symptom specificity. The aim of this study is to describe the epidemiological, clinical and etiological characteristics of ISI and specify the therapeutic and evolutionary terms.

Methods: A retrospective study gathered all patients with ISI who were hospitalized at the Infectious Diseases Department between 1992 and 2019.

Results: We included 35 cases of ISI. There were 14 men and 21 women. The average age was 40.9 [14-84] years. Physical examination showed fever in 80% and a contraction of the paraspinal muscles in 42.8% of cases. The manipulation of the SI joint was very painful in all cases. Biological inflammatory syndrome was noted in 28 cases. Standard radiography showed enlargement of the joint space in 9 cases and condensation banks with lytic images in 3 cases. The ISI was confirmed by Computed Tomography in 22 cases and by Magnetic Resonance Imaging in 13 cases. The most frequent complication observed was periarticular soft tissue abscess (37.1%). A bone scintigraphy showed hyperfixation of the affected sacroiliac joints in 15 cases. The etiologies of ISI were pyogenic germs in 16 cases (45.7%), tuberculosis in 12 cases (34.3%) and brucellosis in 7 cases (20%). Treatment was according to the etiology with an average duration of 6 months. The evolution was favorable for all patients.

Conclusions: High awareness of the clinical presentation of ISI and knowledge of the diagnostic procedure lead to early diagnosis and avoid severe complications.

PV532 / #607

WERNICKE ENCEPHALOPATHY AS INITIAL MANIFESTATION OF PULMONAR TUBERCULOSIS

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Background and Aims: Wernicke encephalopathy (WE) is the best known neurologic complication of thiamine deficiency. Is acute and requires emergent treatment to prevent death and neurologic morbidity. While associated with chronic alcoholism, also occurs in poor nutrition or increased metabolic requirements. We will present and discuss a clinical case.

Methods: A 58 year old male is brought to the Emergency room (ER) unable to provide anamnesis. His brother (closest contact) who informed us that the patient was autonomous and lived with elderly patients and had a strong drinking habit. For the last 3 days he has been isolated and had no food ingestion. On clinical examination had mental confusion, poorly cooperative, amnesia, lateral rectus palsy, multidirectional gaze-evoked nystagmus and gait ataxia. Fever of 38.2°C was documented. Further analysis showed no inflammation markers, normal liver and kidney function, sodium of 131 and normal CK and LDH. Chest X ray showed bilateral apical condensations and chest CT scan revealed coalescing tree-in-bud centrilobular nodules and cavitated lesions. Brain CT didnt show acute vascular lesions, only chronic leukoencephalopathy.

Results: WE was suspected and collected thiamine serum levels prior to the prompt infusion of 500mg of thiamine. In few hours we started to see neurologic improvement, and complete reversion in 48 hours. The diagnosis of pulmonar tuberculosis was made upon isolation of *M. tuberculosis* in sputum.

Conclusions: WE should be a differential diagnosis of all patients with acute delirium or ataxia. Normal thiamin blood levels doesnt exclude the diagnosis.

PV533 / #614

ADULT PATIENTS HOSPITALIZED FOR ERYSIPELAS AND INFECTIOUS CELLULITIS: A SEVEN YEARS RETROSPECTIVE ANALYSIS.

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Background and Aims: Cellulitis is an inflammatory skin condition with an infectious origin which affects the deep dermis and the subcutaneous tissue while erysipelas affects the upper dermis. The purpose of this investigation was to analyze the clinical and epidemiological aspects of erysipelas and infectious cellulitis that required hospital admission.

Methods: An observational retrospective study was designed. All adult patients admitted with the main diagnosis of erysipelas or cellulitis to the Internal Medicine ward of author's institution from January 2012 to december 2018 were included. Socio-demographic (gender, age), disease-related characteristics, etiologic exams, and admission evolution data were collected. Univariate and multivariable regression analyses were performed to identify variables that predicted longer length of stay, therapy failure, occurrence of all-cause in-hospital death.

Results: Among the 462 patients, 200 patients (43.3%) were men. Patient's ages mean was 65.8 years (standard-deviation 17.0). Lower limbs were the primary affected site. The most common risk factors observed were: obesity (52.1%), chronic venous insufficiency or stasis dermatitis (28.6%), diabetes mellitus (26.7%), skin trauma (19.5%), and chronic lymphedema (10.1%). Most patients were healed with intravenous amoxicillin-clavulanate alone (113 cases, 24.5%), flucloxacillin alone (87 cases, 18.8%), or clindamycin alone (46 cases, 10.0%). A prolonged hospital stay occurred in 159 cases (34.4%). In-hospital complications, antibiotic resistance, therapy failure were independently associated with prolonged stay. Fifteen patients (3.2%) died in the hospital.

Conclusions: Patients hospitalized for erysipelas or infectious cellulitis have an overall good prognosis, and most resolved with empirical antibiotherapy. The occurrence of in-hospital complications and change empiric antibiotic therapy were associated with prolonged stay.

PV534 / #615

A SILENT DISEASE: INFECTIVE ENDOCARDITIS

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Case Description: A 63-year-old man with dilated cardiomyopathy with reduced ejection fraction (32%), cirrhosis, alcoholism and heroin use went to the emergency department with oppressive chest pain. He had no fever or signs of venipunction. Blood tests revealed white-cell count of 16,900/ μ L, no elevation of troponin (100→88 ng/mL) and normal serum C-reactive protein (CRP). Transthoracic echocardiography (TTE) revealed left ventricular dilation, ejection fraction 35% and moderate mitral and tricuspid regurgitations. Later, he presents generalized tremor, anxiety, sweating and mydriasis. Conscious level suffered progressive

impairment with Kussmaul breathing. He was transferred to intensive care unit and endotracheal intubation was performed.

Clinical Hypothesis: Acute coronary syndrome, alcohol withdrawal syndrome, opioid withdrawal syndrome.

Diagnostic Pathways: Despite persistent apyrexia and normal CRP, empirical antibiotherapy (AB) was started with piperacilina/tazobactam because of purulent bronchial secretions. The patient had progressive clinical decline requiring hemodynamic support and AB was changed to meropenem and gentamicin. Blood cultures were then positive for *Enterococcus faecalis* whereby transthoracic and transesophageal echocardiography (TOE) were performed, which showed vegetation in the aortic valve with severe insufficiency. At that time, the patient had multiple organ dysfunction and was not eligible for surgical treatment, ended up dying.

Conclusion and Discussion: The absence of fever, normal CRP and ETT with no vegetations made the diagnosis of infective endocarditis (EI) unsuspected. EI with inadequate inflammatory response is rare but it is associated with severe valvular lesion. TOE should be performed when the diagnosis is challenging especially in presence of heart failure and valvular regurgitation. Delayed diagnosis and adequate treatment result in fatal complications.

PV535 / #623

ENDEMIC OR NOT - THAT IS THE QUESTION

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Background and Aims: Amoebiasis is an important cause of mortality worldwide specifically in endemic zones of the globe. The majority of individuals infected are asymptomatic (90%). Serious complications such as fulminant necrotizing colitis and toxic megacolon can occur, especially when diagnosis and treatment is not prompt.

Methods: 80 year-old male admitted to the Emergency Room (ER) for vomiting, nausea and fever (24 hours). Denied recent trips, toxics or new medication, epidemiological context or other symptoms.

Results: At ER the patient had a fever 38°C, without other alterations of the objective examination. Chest X-ray and abdominal ultrasound in the emergency room - without significant changes. Admitted to the Internal Medicine Ward. In spite of empirical antibiotic therapy with amoxicillin/clavulanic acid the patient maintained the fever and increased liver function tests. Requested Thoraco-Abdominal-Pelvic CT that described hepatic steatosis and several hypodense nodular images raising the hypothesis of biliary cysts. Abdominal ultrasound was repeated and revealed "hypoechoic lesion of segment V without characteristics of biliary cyst seeming more likely to correspond to the abscessed lesion - *Entamoeba histolytica*". After therapeutic adjustment - initiation of metronidazole + piperacilin/tazobactam

and suspension of previous antibiotic gradual normalization of the laboratory parameters of infection and liver testes was observed and apyrexia on the 20th day of hospitalization.

Conclusions: With the constant globalization it is important to remember diagnosis that are not endemic to our countries. Even raising the question of, until when the endemic term - with so much diversity and fluidity of individuals, will be applicable.

PV536 / #626

ENTEROCOCCAL BACTEREMIA IN AN INTERNAL MEDICINE WARD: CLINICAL FEATURES AND OUTCOMES

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Background and Aims: Enterococcal infections are the second to third most common nosocomial infections with identified organism, particularly in severely ill patients. They are responsible for various infections that may evolve to an invasive infection. This study aims to characterize enterococcal bacteremia in an Internal Medicine ward and the conditions associated with poor outcomes.

Methods: An observational retrospective study was conducted in a series of patients admitted to an Internal Medicine ward with bacteremia due to enterococcal infection, since January 2014 until December 2019. A univariate and multivariate analysis was performed, assuming an in-hospital all-cause death outcome.

Results: There were a total of 47 patients with bacteremia due to enterococcal infection, 55.3% were female and the mean age was 81.3 years, with a mean of 3,4 comorbidities per patient. Pneumonia was the source of infection in the majority of patients (59.6%) and *Enterococcus faecalis* was the most prevalent agent (61.7%). Thirty eight percent were hospital-acquired infections. From the analysis of empirical therapy, amoxicillin/clavulanate was the preferred antibiotic (31.9%) and from all of the empirical antibiotics only 36.2% were considered appropriate. The in-hospital mortality rate was 42.6%. There was an association between poor nutritional status and poor outcome (p=0.022).

Conclusions: A poor outcome was associated with a poor nutritional status at admission. The patients admitted to an Internal Medicine ward tend to be elderly, with many comorbidities and fragile, what may lead to poorer outcomes.

PV537 / #742

PERICARDIAL EFFUSION BY MYCOBACTERIUM TUBERCULOSIS – A DIAGNOSTIC CHALLENGE

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Background and Aims: The most common form of tuberculosis is lung disease. The etiological diagnosis of pericardial effusion (PE) is important, since the prognosis is directly related to the specific treatment. 36-year-old man with history of institutionalized autism spectrum disorder on benzodiazepine and antipsychotic therapy. Sent to the ER due to dyspnoea at rest associated with cough, purulent sputum and fever. Was under antibiotic therapy with amoxicillin/clavulanate for an acute uncomplicated cystitis. From the study carried out diagnosed with Pneumonia with hypoxemic respiratory failure and strated on empiric piperacillin/tazobactam. Given the persistence of fever and elevation of inflammatory parameters, was started on meropenem plus vancomycin, once the chest CT revealed “cylindrical bronchiectasis, micronodular opacities and pericardial effusion (PD)”. An echocardiogram was performed that confirmed a large volume, asymmetric, non-addressable pericardial effusion. Empirically initiated colchicine and acetylsalicylic acid was inciated with no improvement after 3 weeks of treatment. Thus, and although pulmonary tuberculosis was excluded, given the positivity in IGRA, *M. tuberculosis* disease with organ damage (pericardium) was assumed and tuberculostatic therapy was started, with progressive improvement of the effusion. In the reassessment of PE at 4 weeks in improvement and at 3 months with complete resolution.

Methods: Case Report.

Results: Improvement with therapy.

Conclusions: The diagnosis of disease by *M. tuberculosis* is given by the positive result on direct examination (bacilloscopy) and microbiological isolation of this agent. Even so, the attainment of tuberculosis disease, is not always liable to the performance of these exams, being necessary a multidisciplinary approach, with the accomplishment of therapeutic test for a correct treatment.

PV538 / #744

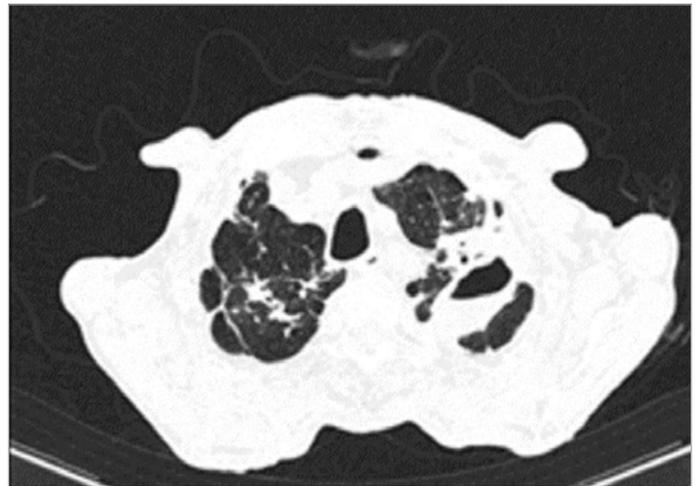
PULMONARY TUBERCULOSIS AN IMAGE TO REMEMBER

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Background and Aims: The most common form of tuberculosis is lung disease. 76-year-old man, follow-up consultation for



#744 Figure

Acute Kidney Injury (prostatic pathology under study) reports weight loss of 5 kg in 6 months and marked asthenia. TC TAP request, for the exclusion of neoplasia, which revealed bulky and numerous cavitations, predominating in the upper pulmonary lobes, with thick walls and irregular edges, raising the hypothesis of a bacillary process. Basoscopy (positive), and tuberculostatic therapy was started to treat active pulmonary tuberculosis (TB), processes that influence the prognosis of patients.

Methods: Imaging diagnostic.

Results: Tuberculosis diagnosis and treatment.

Conclusions: TB continues to have a high prevalence in our Portugal. With these images, the authors intend to warn of the importance of a quick diagnosis in order to avoid extensive pathological sequelae like the ones shown in the image presented.

PV541 / #783

VISCERAL LEISHMANIASIS, A CLINICAL CASE

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Case Description: A Portuguese 75-year-old female presents the emergency department with complains of malaise, anorexia and loss of 10 kilos in the last two months. In the last week she developed shivering and fever. Upon initial observation she was pale, warm, with a temperature of 40.3°C. Painful abdominal palpation in the upper left quadrant.

Clinical Hypothesis: Infectious diseases and lymphoproliferative disease.

Diagnostic Pathways: Blood sample showed pancytopenia, elevated reactive C protein and hypoalbuminemia. A protein electrophoresis showed hypergammaglobulinemia. The immunological and serological studies (including human immunodeficiency virus) were negative, as well as blood and urine cultures. The transthoracic echocardiogram showed

no vegetation. Splenomegaly (135 mm) was detected in the abdominal ultrasound. Bone marrow aspirate was taken where the visualization of amastigotes was made, confirming the diagnosis of Visceral Leishmaniasis (VL).

Conclusion and Discussion: The patient was treated with Liposomal amphotericin B with excellent response. The clinical presentation of VL can be similar to other infectious diseases or lymphoproliferative diseases, making the diagnosis a challenge requiring high clinical suspicion. In Portugal, leishmaniasis is endemic, caused by *L. infantum* and the clinical presentation is predominantly VL.

PV542 / #785

CUTANEOUS CMV IN PATIENT WITH MULTIPLE COMORBIDITIES

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Background and Aims: *Cytomegalovirus* (CMV) has high prevalence, but immunocompetent patients are usually asymptomatic and there is higher incidence in immunocompromised patients, especially in AIDS. Cutaneous presentation is rare, however, some cases are described in the literature as, mainly, vesicles, papules, oral/perianal and genital ulcers.

Methods: We present a 62-year-old man, morbidly obese, diabetic, alcoholic chronic hepatic disease (CHD) and hyperferritinemia, overlap syndrome (COPD/OSA), heart failure, osteoarticular disease and chronic pleural effusion after car accident.

Results: The patient was admitted due to exacerbation of his COPD, CHD and type 2 respiratory failure with hypervolemia, caused by UTI and medicated with ceftriaxone. However, there was aggravation of lower limbs (LL) edema with formation of inflamed draining blisters, consistent with cellulitis, therefore was under vancomycin and piperacillin-tazobactam, adjusted to renal function. Despite, the patient developed extensive macerated lesions in the inguino-scrotal region. These lesions worsened and were followed by epidermis discontinuation and irradiating towards the LL and glutes. Lesion swabs were performed, and they were positive for CMV. Also, positive serum CMV: IgG anti-CMV ab >500.0 U/mL; IgM anti-CMV ab 1.83. We began Gancyclovir for 14 days, although there was some delay in obtaining the drug at the hospital pharmacy. Though there was a slightly improvement of the lesions, the patient status aggravated with hepatorenal syndrome, without change or improvement, ending up passing away.

Conclusions: It is essential to recognize susceptible patients, and their multiple comorbidities, to successive infectious states resulting in frailty and immunosuppression, hence it is extremely important to initiate guided therapeutics as soon as possible.

PV543 / #786

NATIVE MITRAL VALVE MSSA ENDOCARDITIS

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Background and Aims: Despite being a rare disease, estimated annual incidence of 3-9 cases in 100,000 in developed countries, infectious endocarditis has an overall in-hospital mortality of 18%, even with adequate antibiotic therapy.

Methods: Case Report.

Results: A 72-year-old man with history of hypertension, dyslipidemia and diabetes, went to ED complaining of progressive asthenia and letargy for the last 2 days. He was feverish, tachycardic and hypotensive (90/48 mmHg). Analytically: Urea 159 mg/dL, Creatinine 2.34 mg/dL, (CRP) 422.10 mg/dL, no leukocytosis. The patient was hospitalized for infection and was started fluid therapy and empirical ceftriaxone. Despite the medication, his mental status and renal function continued to deteriorate. The blood cultures presented MSSA growth so the antibiotic was changed to flucloxacillin. The echocardiogram identified vegetation in the native mitral valve and flucloxacillin was prescribed in endocarditis doseage. Despite the early antibiotic therapy, the patient died of bacteremia and endocarditis with methicillin-sensitive *Staphylococcus aureus*.

Conclusions: This case intends to alert to the importance of a high degree of clinical suspicion for this rare but severe disease.

PV544 / #792

VARICELLA-ZOSTER VIRUS ENCEPHALITIS – A CASE REPORT

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Case Description: 95 years old male patient, previously autonomous and personal history of hypertension, heart failure, coronary disease, chronic kidney disease and iron deficiency anemia. Admitted with altered mental status with 2 days of evolution. Objectively identified spatial and temporal disorientation and dysarthria, with no other focal neurologic abnormalities. The blood tests shown no elevation of inflammatory parameters and were negative for abuse drugs. Cranial CT scan ruled out recent ischemia, intracranial hemorrhage and space-occupying lesions.

Clinical Hypothesis: Attending to the rapid neurologic worsening an infectious encephalitis, primary intracranial or metastatic tumor were the most likely clinical hypothesis. Considering the patient's age, dementia and adverse effects of medications were also admitted. Less likely was autoimmune or paraneoplastic diseases.

Diagnostic Pathways: Before further tests, it was noted at the right dorsal region the presence of cutaneous lesions, compatible

with shingles. The confirmed drug history excluded drugs that impair cognition. Laboratory testing ruled out B12 and folic acid deficiency; thyroid function was normal and serum treponemal test excluded neurosyphilis. Cranial MRI revealed signs of microcirculatory ischemic disease, without other major changes. Analysis of the cerebrospinal fluid (CSF) identified pleocytosis and elevated protein concentration, therefore it was assumed *Varicella-Zoster Virus* (VZV)-associated encephalitis and started on anti-viral treatment with acyclovir. Afterwards the CSF polymerase chain reaction tested positive for VZV, which confirmed the diagnosis.

Conclusion and Discussion: VZV-associated encephalitis typically presents with delirium within days following the vesicular eruption. The authors emphasise the importance of a complete physical examination. An adequate clinical history and physical examination could help us diagnose on time this serious illness in the elderly population.

PV545 / #798

BEHIND AN OSTEOLYTIC LESION

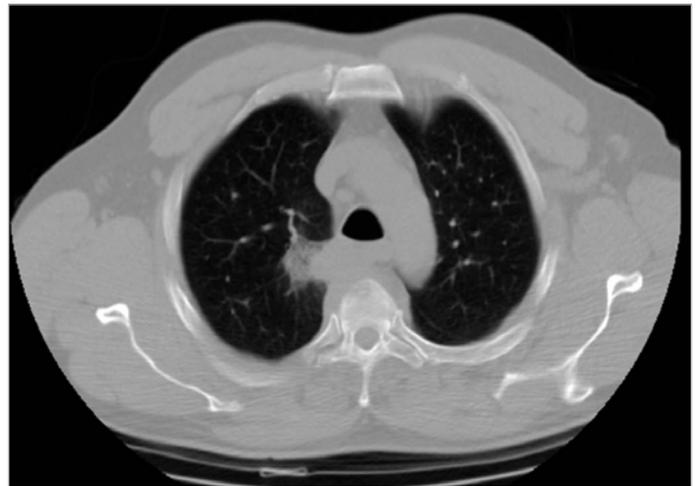
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Case description: A 49-years-old man with a history of a recent prostatitis and Meticillin-Sensitive *Staphylococcus aureus* (MSSA) bacteremia treated with 20 days of clindamycin 150 mg bid and cotrimoxazole 800+160 mg id went to the emergency department due to back pain and occasional fever during the last 3 weeks.



#798 Figure A



#798 Figure B



#798 Figure C

Clinical Hypothesis: *Staphylococcus aureus* is a common cause of skin/soft tissue infections, bloodstream infections, osteomyelitis, septic arthritis and device-related infections and it can lead to seeding of virtually any site ensuing complications.

Diagnostic Pathways: The initial study revealed: high C reactive protein, normal spine x-ray and chest CT showing a 28 mm solid nodular lesion in the right costovertebral groove above the azygos vein cross, invasion of the costal pleural and lytic aspect of a vertebral body. He was admitted in the Internal Medicine ward to additional study. A spine RMN showed a space-occupying lesion but thoraco-abdominal-pelvic CT, bronchofibroscopy and endoscopic study showed no evidence of neoplasia. A transthoracic aspiration biopsy was performed with pus drainage and isolation of MSSA.

Conclusion and Discussion: Despite the recent clinical history and taking into account the very suggestive findings of neoplasia found in the imaging study that could also justify the patient's symptoms, the existence of a primary neoplasm has always

been placed and sought. Biopsy made it possible to reach the diagnosis of osteomyelitis caused by MSSA. After 3 months of cotrimoxazole 800+160 mg bid, he maintained signs of infection and was therefore prolonged for another 3 months with clinical and imaging improvement.

PV546 / #822

ACCIDENTAL TETANUS: A RARE CASE REPORT

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Background and Aims: Tetanus is characterized by muscle spasms and dysfunction of the autonomic nervous system caused by the neurotoxins of an anaerobic bacterium, called *Clostridium tetani*. It can contaminate wounds, slight abrasions and the umbilical stump in neonates, manifesting lethally in some cases. Generalized tetanus usually presents with initial symptoms such as sweating and tachycardia. In the later stages, profuse sweating, cardiac arrhythmias, labile hypertension or hypotension and fever are often present. Tonic and periodic spastic muscle contractions are responsible for most of the classic clinical findings. The treatment of tetanus is best performed in the Intensive care unit.

Methods: Medical records from Hospital São Vicente de Paulo, Brazil, with bibliographic survey and patient consent.

Results: 62 yo, male, was admitted in ICU, due to trismus, difficulties in opening the oral cavity and progressive respiratory discomfort. He had a cutting wound after repairing a fence in his home, starting in the following days a clinical septicemia, with progressive worsening of the clinical condition, like hemodynamic instability, increased body spasms, fever and changes in the pulmonary physical examination, requiring OT intubation. After 14 days, a tracheostomy was indicated. The patient was maintained on mechanical ventilation for 18 days, with progressive clinical improvement. There was an excellent and rare clinical recovery with hospital discharge after 30 days, with almost none neurological sequelae.

Conclusions: Even the rare infectious diseases for which there are effective vaccines, remain yet a public health problem. The

knowledge of its presentation and treatment are crucial for the best management of the disease's complications.

PV547 / #844

VARICELLA ZOSTER VIRUS ENCEPHALITIS IN AN IMMUNOCOMPETENT ADULT - A CASE REPORT

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Case Description: A 81-year-old man, presented to the emergency department with a 24-hour history of progressive prostration, edema and erythematous lesions of the left side of his face, without fever. At physical examination the patient was hemodynamically stable, temperature 37.8°C. He had a rash on the left side of his face with erythematous papules and vesicles, restricted to the ophthalmic nerve area. Neurological examination shows fluctuation between agitation and prostration. The left eye was impossible to evaluate due to the exuberant edema. There was no facial asymmetry or neck stiffness and Kerning and Brudzinski signs were negative. The remaining physical examination was unremarkable.

Clinical hypothesis: The most likely diagnostic hypotheses are infection by either *Varicella-Zoster Virus* (VZV) or *Herpes Simplex Virus* (HSV). The lesions location, being apparently circumscribed to the area of the ophthalmic nerve and therefore located in a dermatome, favored VZV infection.

Diagnostic Pathways: Complete blood count were unremarkable, reactive C-protein was 59 mg/L. A head computerized tomography scan showed no acute process, and a lumbar puncture was performed showing pleocytosis with predominance of mononuclear cells. Polymerase chain reaction testing of spinal fluid confirmed VZV infection, and the patient was started on intravenous and ophthalmic acyclovir.

Conclusions and Discussion: This case illustrates VZV infection as a disease of the elderly. Despite being typically associated with immunosuppression, it shows we should suspect VZV infection and even neurological complications in immunocompetent individuals. Although the presence of rash is not mandatory, its location in cranial dermatome is a major risk factor for the development of encephalitis.

PV549 / #933

NOT ALL METASTASIS ARE BORN EQUAL

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Case Description: A 70-years-old male patient with past history of intestinal MALT lymphoma and nasopharyngeal carcinoma, with no signs of residual disease, sought hospital care due to global

weakness, fatigue and weight loss. At hospital admission, he presented with severe symptomatic hyponatremia (111 mmol/L). Hypotonic hyponatremia was successfully corrected with sodium chloride supplementation, along with hydric restriction, and the patient showed partial symptomatic improvement.

Clinical Hypothesis: In light of past history of multiple neoplasms and the patients' constitutional symptoms, a complementary study was conducted to tackle a possible relapse of either an hematologic or solid tumor.

Diagnostic Pathways: A myelogram and immunophenotypic profile were performed, showing no abnormalities; a cervical CT scan showed no signs of nasopharyngeal neoplasm relapse, but a thoracic CT scan showed bilateral pulmonary lesions compatible with metastatic tumors. During his hospital stay, the patient developed fever and inflammatory parameters started to rise. A methicillin-susceptible *Staphylococcus aureus* (MSSA) was sequentially identified in bacterial urine-, sputum and blood cultures, and the patient developed a septic arthritis on his right knee. Accordingly, PET scan disclosed multiple articular, muscle and lung parenchyma hypermetabolic lesions. Further lab tests disclosed an immunodeficiency secondary to previous rituximab treatment, with multiple immunoglobulin deficiencies.

Conclusion and Discussion: Altogether, we present a challenging case of MSSA bacteremia with multiple metastatic infectious foci, despite initial imagiologic and clinical suspicion of carcinogenic metastasis. The patient presented favorable response to combined therapy with articular and muscle abscesses drainage and long-term meropenem treatment. He was additionally treated with intravenous immunoglobulin, showing dramatic clinical improvement.

PV550 / #953

SEPTIC ARTHRITIS AS FIRST MANIFESTATION OF FATAL CATHETER-RELATED SEPTIC THROMBOPHLEBITIS: A RARE COMPLICATION

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Case description: An 81-year-old woman, hospitalized for 3 weeks for decompensated heart failure, presented pain in her right elbow with functional limitation, without previous trauma, accompanied by fever. She had a history of diabetes, dyslipidemia, hypertension, obesity and breast cancer under anastrozole treatment. On examination, the patient was lethargic, hypotensive and there was marked swelling, redness, heat and pain on palpation and mobilization of the right elbow.

Clinical Hypothesis: Septic thrombophlebitis is a rare condition with high mortality if left untreated. This endovascular infection may result in secondary metastatic disease, including arthritis, and even in sepsis. Peripheral venous catheters are an important risk factor, especially if long-lasting or incorrectly handled. Elderly

patients with neoplasia or under corticotherapy are also at increased risk.

Diagnostic Pathways: The patient's laboratory studies showed de novo leukocytosis, neutrophilia, thrombocytopenia and elevated C-reactive protein. Articular ultrasound revealed moderate effusion, compatible with septic arthritis, as well as, signs of thrombosis of the median basilic vein, suggestive of thrombophlebitis, most likely catheter-related. Ultrasound-guided arthrocentesis was unsuccessful. Blood cultures were positive for methicillin-resistant *Staphylococcus aureus*. The patient had a poor response to ceftriaxone and linezolid, and died a week later.

Conclusion and Discussion: This case illustrates a serious and often overlooked, but potentially preventable, risk of hospitalization: catheter-related thrombophlebitis, complicated by sepsis and septic arthritis, an unusual inaugural manifestation. Thus, it highlights the importance of a judicious use of intravenous therapy, the improvement of catheter handling techniques, the surveillance of symptoms of thrombophlebitis, and a timely diagnosis and treatment.

PV551 / #974

A CASE OF INFECTIVE ENDOCARDITIS AND SPONDYLITIS CAUSED BY STREPTOCOCCUS MITIS BACTEREMIA

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Background and Aims: *Streptococcus mitis*, while of ten characterized as a benign oropharyngeal colonizer, can result in bacteremia, with significant morbidity and mortality. In this case, the patient's bacteremia resulted in an infective endocarditis and a spondylitis.

Methods: We reported a case of infective endocarditis and a spondylitis caused by *Streptococcus mitis*.

Results: A 45-year-old man was admitted with a 8-week history of lumbar pain. Examination was remarkable for poor dentition and fever. Cardiac exam was significant for tachycardia. Osteoarticular exam showed a L4 spinal pain and an ankle arthritis. Labs revealed leukocytosis of 19,980. Two blood cultures were obtained and the patient was empirically started with ampicillin and gentamycin. Blood cultures from admission grew *Streptococcus mitis*. Atransthoracic echocardiogram demonstrated enlargement and thickening of the mitral leaflets and anulus, but vegetation was not observed. The patient underwent a trans esophageal echocardiogram (TEE), which demonstrated small mitral valve vegetation (6 mm). MRI revealed upper vertebral endplatespondylitis (L4). Nephritis and splenic infarctions were found in the abdominal ultrasound. For treatment, Gentamicin was replaced by rifampicin on day 5. At the third week of treatment, the patient presented a rash secondary to drugs. Thus, we stopped ampicillin and rifampicin and switched to glycopeptid and levofloxacin. The echographic control showed a regression

of the vegetation (3 mm) at 6 weeks of treatment. The patient completed a eight-week course of antibiotics and recovered without complications.

Conclusions: Poor oral hygiene was felt to be the probable source of the patient's *S. mitis* bacteremia. This case demonstrates that *Streptococcus mitis* can result in clinically significant bacteremia.

PV552 / #986

MYCOBACTERIUM TUBERCULOSIS: CAUSE OF SEPSIS IN A HIV PATIENT

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Background and Aims: HIV infection increases the risk of tuberculosis (TB). When untreated, HIV infection leads to severe immunodepression, increasing the predisposition to opportunistic infections. HIV/TB co-infection provides a worse prognosis and higher mortality for both diseases.

Methods: Case Report.

Case Description: A 54-year-old man, living in Luanda, with HIV infection diagnosed 8 years ago, after sexual contact with an infected partner. Smoker, alcohol consumer and drug user in the past. Two months before, due to diarrhea, he went to a doctor in Luanda and started antiretroviral therapy (tenofovir/emtricitabine and efavirenz). He went to our emergency department, in Braga-Portugal due to fever, asthenia, diarrhea and weight loss (20 kg), being admitted to Internal Medicine department. The determination of the viral load was 12500 copies/mL and the number of CD4 T lymphocytes was 15 cells/mm³. CT thoracoabdominopelvic revealed multiple abdominal and pelvic adenopathies, hepatosplenomegaly (suspected lymphoproliferative disease), and an infracentimetric nodular formation in the apical area of the right lung. Negative blood cultures. While waiting for bronchofibroscopy and ganglion biopsy, *Mycobacterium tuberculosis* was isolated in a cultural stool. The patient started antituberculous drugs, but, on the same day, developed hypotension, severe respiratory and renal dysfunction, having been admitted to the Intermediate Care Unit with the diagnosis of septic shock by mycobacteriosis. Despite targeted and supportive therapy, the patient died 3 days later.

Conclusions: This case demonstrates how non-compliance to therapy and delay in starting treatment are major obstacles in controlling HIV disease. Severe immunodepression predisposes to opportunistic infections, as TB, and often it manifests in nonspecific and fulminating ways.

PV553 / #998

NECROTIZING FASCIITIS-CAN WE IMPROVE THE OUTCOME?

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Background and Aims: Necrotizing fasciitis (NF) is an uncommon subcutaneous tissue infection that is associated with systemic toxicity and a high mortality rate. The prognosis of NF depends on early recognition and treatment. Our aims are to present epidemiology data, clinical and microbiological particularities of NF.

Methods: Sixteen cases were treated in the Infectious Diseases department in Sfax (Tunisia) from 2015 to 2019.

Results: The mean age was 69 years [52-89], there were 12 (75%) male and 4 (25%) female. Diabetes, peripheral vascular disease and obesity were found respectively in 7 cases (44%), 2 cases (12%) and 1 cases (6%). Three patients (19%) had recently received NSAID/corticosteroid. Skin trauma was noted in 8 patients (50%). The median time of hospitalization was 7 days [2-30]. the most common signs were fever (88%), pain (81%), swelling (94%), and phlycten (44%). Circumferential extension of inflammatory signs (62,5%), skin necrosis (56%) and purpuric spots (37,5%) were the most common local signs of severity. Eleven patients (69%) were present with symptoms of sepsis. The seat of the NF was lower extremities (82%), upper limb (6%), perineum (6%) and scalp (6%). A significant biological inflammatory syndrome was noticed. In the six bacteriologically documented forms, *Staphylococcus aureus* (67%) and *Streptococcus A* (50%) were the most isolated germ. The combination of amoxicillin-clavulanic acid and clindamycin is the most used empirically antibiotherapy (37,5%). Twelve patients had surgery 7 days [1-10] after admission. During their hospitalization, five patients had a decompensation of their diseases and two a thromboembolic complication. Death was noted in 4 cases.

Conclusions: Although FN has been associated with morbidity and mortality, we believe that surgical debridement and antibiotic administration are required to avoid a fatal outcome.

PV554 / #1002

ACUTE MEDIASTINITIS - A CHALLENGING CASE

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Case Description: 70-year-old female with hypertension, hypothyroidism, and smoking habits, is admitted due to two-weeklong symptoms characterized by fatigue, dizziness, and malaise, worsened in the last two days with pleuritic thoracalgia with dorsal irradiation. Physical exam was unremarkable.

Clinical Hypothesis: Chest X-ray revealed a silhouette sign in left cardiac border, thoracic CT described a heterogeneous

densification of anterior mediastinum and left supraclavicular lymphadenopathies. EKG had ST-segment elevation in DI-DII-V6 and an echocardiogram confirmed a small circumferential pericardial effusion associated with pericardial thickening along right ventricle free wall, so we started NSAIDs assuming a pericarditis.

Diagnostic Pathways: There was no improvement so a thoraco-abdominopelvic CT was performed and revealed a left superior mediastinic lesion (7x6x4 cm) with fat densification and necrotic areas, with a slight left pleural effusion – findings suggestive of a neoplastic cause. CT-guided biopsy showed alveoli filled by fibrinogranulocytic exudate and pneumocyte lining hyperplasia, with no malignant cells. Due to inflammatory markers rise and no other infectious source, we started empiric piperacillin/tazobactam. Blood cultures were negative, but we observed apyrexia and inflammatory markers decrease as well as mediastinic lesion shrinking after 7 days. Antibiotherapy was kept for three more weeks and we confirmed complete resolution 6 weeks after with a new CT.

Conclusion and Discussion: Despite we were not able to identify any microorganism, clinical course and treatment response confirm an acute bacterial mediastinitis. When there is not any traumatic injury, most cases come from ineffectively treated odontogenic or pharyngeal infections that are frequently ignored.

PV555 / #1015

CASE REPORT OF MILIARY TUBERCULOSIS DUE TO ANTI-TNF USE

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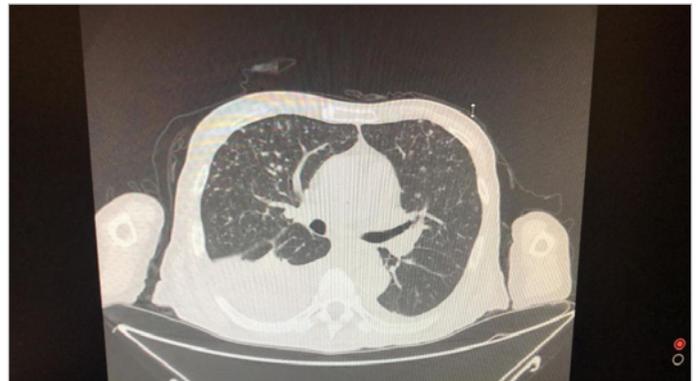
Background and Aims: There are many differential diagnoses in patients presenting with structural symptoms such as night sweats, fever and weight loss. The diagnosis of tuberculosis should be considered, especially in patients with a history of immunosuppressive therapy.

Methods: Radiological, microbiological and histopathological diagnostic methods should be used in the diagnosis.

Results: A 69-year-old male, diagnosed with known diabetes (DM), hypertension (HT), coronary artery disease (CAD), chronic renal failure (CRF), and ankylosing spondylitis (AS), was admitted to the hospital with weight loss and night sweats. On physical examination, there was herpes zoster infection scar on her back. Breathing sounds decreased in the lower zones. The patient was using antihypertensive, antidiabetic, and antiischemic. He had received anti-TNF therapy for AS 1 year ago. In computerized tomography (CT); Diffuse wall thickening was observed in the ileal loop. In the right lower quadrant, there are lymph nodes smaller than 1 cm. Endoscopy was performed for thickening in the terminal ileum. Widespread ulcers and polypoid formations were observed, encircling and narrowing the lumen. On the biopsy taken, ulcer, inflammatory granulation tissue, focal granuloma structures were seen. Sarcoidosis and tuberculosis were pre-



#1015 Figure A



#1015 Figure B

diagnosed. Thoracic CT and laboratory tests were requested. CT revealed multiple parenchymal pulmonary nodular lesions in the upper lobes of lungs. Arb positive was detected in sputum. A diagnosis of miliary tuberculosis was made with results. Tuberculosis treatment was initiated. The patient's symptoms resolved within 2 weeks. The patient who was discharged was called for outpatient clinic control.

Conclusions: Miliary tuberculosis should be considered in the differential diagnosis in patients who have received immunosuppressive therapy.

PV556 / #1037

A CASE OF SYPHILIS WITH PULMONARY INVOLVEMENT

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Background and Aims: Syphilis is an infectious disease with sexual and vertical transmission, caused by the spirochete *Treponema pallidum*. Clinical manifestations are polymorphic and diagnostic

confirmation is performed by non-treponemal and treponemal tests. Secondary syphilis emerges between 4 to 8 weeks after the primary injury.

Methods: This study reports a case of secondary syphilis in a 52-year-old adult male, without any relevant personal history, allergic to penicillin, who was hospitalized by a skin rash with 6 days of evolution and pain in the hypochondrium and left hemithorax with worsening respiratory movements decubitus. Wife reports the appearance of a pink lesion at the level of the husband glans a month earlier, which motivated her to go to the urologist, at the time with negative syphilis serologies.

Results: On physical examination, he presented a papular macula rash on the trunk, without itching or pain, with palms and plants reaching, and on the penis but without painful ulcers. The diagnosis of syphilis was confirmed by serological positivity, and treatment with doxycycline was instituted for 2 weeks. Analytically, he presented lymphopenia and increased C-reactive protein, negative standard viral serologies, but positivity for antiphospholipid antibodies, justified by infection. Chest radiography and tomography showed a left pleural effusion, admitted as pulmonary involvement of secondary syphilis. He was discharged for the consultation.

Conclusions: With this case, it is possible to emphasize the importance of a good anamnesis for better clinical guidance, however the serological positivity confirms the diagnosis. Syphilis is still a prevalent disease worldwide and therefore this diagnosis should never be neglected.

PV557 / #1044

AN UNUSUAL CASE OF FEVER, POLYARTHRITIS AND RASH

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Background and Aims: A 46-year-old woman presented with a five-day history of malaise, fever, polyarthritis, and rash. Occupational history was notable for a scratch by her pet rat six weeks prior to presentation. Physical examination revealed purpura with pustules on the palmar side of hands, arthritis of the wrists and ankles. Autoimmune diseases, HIV, STIs, viral hepatitis, *Parvovirus B19*, *Brucella* and *Bartonella* were ruled out. Echocardiography revealed no valvular vegetations, fundus examination ruled out Roth's spots. Joint aspiration yielded clear fluid with 10,000 WBC, no crystals and negative cultures. Blood and pustule aspiration cultures were negative. 16S rRNA sequencing for identification of *S. moniliformis*, performed on pustule aspirate, was negative. She received IV penicillin G with rapid clinical and laboratory improvement.

Methods: Rat bite fever (RBF) is a rare zoonotic infection caused by *Streptobacillus moniliformis* and *Spirillum minus* and transmitted by rodent bites and scratches, by contact with the rodent's saliva, urine or feces. The diagnosis was hypothesized based on her close exposure to a rat and her presenting with the classic features: fever, polyarthritis, and purpuric rash.

Results: Because of expected difficulties in culturing blood samples and synovial fluid, 16S rRNA sequencing was provided. Despite negative results, RBF was strongly suspected and penicillin G was started accordingly.

Conclusions: The triad of fever, arthritis and rash presents in a wide spectrum of diseases of infectious and inflammatory etiologies. In our patient, the history of rat contact and characteristic findings proved diagnostic, even in the absence of specific supporting labwork, and the patient responded robustly to appropriate treatment.

PV558 / #1048

STRANGE MULTIPLE EMBOLIZATIONS - A CASE OF FUNGAL ENDOCARDITIS

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Background and Aims: Fungal endocarditis is a rare and challenging disease with nearly 50% mortality.

Case Description: Man, 70 years-old, with known hypertension, dyslipidemia and diabetes, had an aortic valve replacement and right carotid endarterectomy 3 months before. He was admitted to the hospital with gait imbalance and vertigo. Brain CT scan documented a posterior circulation stroke and brain MRI showed additional ischemic lesions in the anterior and posterior vascular territories. As the patient was febrile, blood cultures were obtained and *Candida parapsilosis* was isolated. Transesophageal echocardiogram revealed an aortic valve vegetation without complications. A cervical ultrasound showed a mobile thrombus in the right carotid artery. These findings suggested a fungal endocarditis with active embolization and so, treatment with micafungin was started. No immunodeficiencies were identified, admitting the recent surgery and the diabetes as the only risk factors. He was then submitted to biological aortic valve replacement. A few days after surgery, he became confused, motivating a CSF study that revealed a mononuclear pleocytosis and proteinorrachia, no agent was identified. Due to the presumption of central nervous system infection, antifungal

therapy was changed to amphotericin and flucytosine and brain MRI confirmed a brain abscess.

Results: The patient improved with therapy for 45 days, with regression of the brain abscess, the vegetation in the carotid artery and with sterile blood cultures. He was discharged under fluconazole.

Conclusions: Funghi endocarditis are challenging to treat. This case was demanding due to the many embolizations documented and was only successful due to the work of a multidisciplinary team.

PV559 / #1050

SPLenic TUBERCULOSIS : WHAT IS SPECIFIC WITH ?

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Background and Aims: One important, though poorly described, manifestation of extra-pulmonary tuberculosis is that of splenic tuberculosis (TB). We aimed to identify the epidemiological, clinical and radiological characteristics of splenic TB in Southern Tunisia.

Methods: We reported a retrospective study including all patients with splenic tubercular involvement between 1992 and 2019.

Results: We included 10 patients (8 females and 2 males). The median age was 36 years. Immunosuppression was reported in 3 cases. Clinical findings were dominated by constitutional symptoms such as fever (80%), weight loss (70%) and night sweats (60%). Abdominal pain was noted in 3 cases. Physical examination showed splenomegaly in 4 cases and abdominal effusion in 2 cases. All patients had simultaneously others sites of TB. The main sites were lymph nodes in 8 cases, lungs in 6 cases, and liver in 4 cases. Ultrasound of the spleen was realised in 5 cases showing multiple focal hypoechoic lesions in 2 cases, isolated splenomegaly in 2 cases and splenic abscess in 1 case. Computed tomography scan showed micronodular spleen in 5 cases, multiple hypodense nodules in 3 cases, and splenomegaly with multiple fluid density formations (splenic abscesses) in 2 cases. All patients received antitubercular treatment for a median duration of 13 months [6-24]. The outcome was favorable in 9 cases and we noted one death.

Conclusions: The splenic involvement in TB is mainly reported in disseminated form of the disease. Radiological findings are highly useful for the diagnosis but should be correlated with overall clinical presentation with demonstration of tuberculosis at other body sites.

PV560 / #1054

LEGIONELLA STUDY - 2020 PORTUGUESE OUTBREAK

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Background and Aims: Legionnaires' disease (LD) is an important worldwide public health problem. To date, the largest outbreak happened in Spain (449 cases) in 2001 and the second largest in Portugal in 2014 (403 cases). A new outbreak in Portugal with 83 cases was identified between 30th October and 3rd December of 2020. Pedro Hispano Hospital (PHH) was one of the hospitals receiving patients with LD.

Methods: Information was retrieved from a community-based register of patients with LD diagnosis admitted to PHH. We studied demographic data, clinical features, treatment and outcomes.

Results: Out of 51 patients with LD admitted to PHH, 72.5% were male and the mean age was 71.9±12. Fever (86.3%) was the most prevalent symptom. Average Pneumonia Severity Index was 102.82±31, leading to a high rate of inpatient admissions (84.3%). Concerning inpatients, 9.3% were admitted to Intensive Care Unit and 27.9% to Intermediate Care Unit. Levofloxacin was the treatment of choice in over 80% of cases. The mortality rate was 19.6%.

Conclusions: *Legionella pneumophila* can cause a potentially severe infection. In our study, as in most series reports, the majority were male. The presentation at admission ranged across a spectrum of severity. Most required hospitalization, often in level II/III units. Our study recorded a mortality rate superior to most literature reports, which may be due to an older population with several comorbidities. More research is required to better understand this subject.

PV561 / #1056

THE OUTBREAK IN A PANDEMIC – A REPORT OF LEGIONELLA AND SARS-COV-2 CO-INFECTION

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Background and Aims: Legionnaires' disease (LD) is a form of pneumonia and early diagnosis is of utmost importance to ensure optimal treatment and favourable outcomes. COVID-19 is often associated with bilateral pneumonia and only a low proportion have bacterial coinfection. This study highlights the importance of differential diagnosis during the current COVID-19 pandemic, describing a unique sample of co-infection concerning these agents.

Methods: The authors reviewed a group of co-infected patients with *Legionella pneumophila* and SARS-CoV-2, admitted in Pedro Hispano Hospital (PHH) during the 2020 *Legionella* outbreak in Portugal, that occurred between the 30th October and the 3rd December. We recorded and described epidemiologic data, symptoms, laboratory and imagiologic findings, comorbidities and outcomes.

Results: 51 patients were admitted to PHH with LD diagnosis. Four (7.6%) had SARS-CoV-2 co-infection on admission and six (11.5%) developed SARS-CoV-2 infection after admission. We recorded a total of 10 patients with co-infection, with ages between 53 and 89 and a male predominance of 70%. 4 patients (40%) had bilateral pneumonia. The most frequent symptoms were fever (70%) and cough (60%). The in-hospital mortality rate was 10% and 5 patients (50%) required admission on a level II or III Intensive Care Unit during hospitalization.

Conclusions: *Legionella pneumophila* and SARS-CoV-2 co-infection is a potentially life-threatening condition associated with bilateral pneumonia with severity criteria. Nosocomial SARS-CoV-2 infection is a reality. In our population, the mortality rate of *Legionella pneumonia* was not significantly increased by SARS-CoV-2 co-infection.

PV562 / #1059

HUMAN HERPESVIRUS 7 -AN ATYPICAL PRESENTATION

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Case Description: A 19-year-old man presented in a tertiary hospital with a one week history of frontal/retro orbital headache, initially of low intensity. Over time, pain intensity increased

progressively, until it reached such a high level that made him seek medical attention. Additionally, he reported feeling feverish, although he had never measured his temperature. On examination, he was febrile (TT 38.3°C), but without focal neurological signs or neck stiffness.

Clinical Hypothesis: Human Herpes virus 7 (HHV-7), a *Herpesviridae*, is known as the cause of exanthema subitum in children. However, in rare cases, it can affect the central nervous system (CNS), resulting in encephalitis and meningitis. In adulthood, its occurrence is rarer, and is usually associated with immunocompromised individuals, although cases of CNS infection in immunocompetent people have been reported. However, it is not clear if, in the latter group, disease is caused by primary infection or reactivation of the virus.

Diagnostic Pathways: A CT cerebral venography was performed, with no remarkable findings, and a lumbar puncture found a clear cerebrospinal fluid with an increased cellularity, predominance of mononuclear cells, and a polymerase chain reaction positive for HHV-7. Therapy with acyclovir was stopped after this result. Conservative treatment was adopted. The clinical evolution was favourable, with full remission of his symptoms.

Conclusion and Discussion: With this case, we pretend to show a rare presentation of HHV-7 infection in an immunocompetent adult.

PV563 / #1070

ERYSIPELOTHRIX RHUSIOPATHIAE: THE IMPORTANCE OF A THOROUGH OCCUPATIONAL, PAST-MEDICAL AND CLINICAL HISTORY

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Case Description: A 60-yo man with cirrhosis due to alcohol-related liver disease (ARLD) presented to the Emergency Department due to syncope. He had fever (38.1°C), BP 131/84 mmHg, HR 120 ppm and SpO₂ 82%. The arterial blood gas analysis showed hypoxemic respiratory insufficiency. Analytically he had thrombocytopenia, elevation of hepatocellular, cholestasis and creatine kinase enzymes, with negative inflammatory parameters. A septic screening was pursued, and empirical antibiotic was initiated. On the fifth day of hospitalization *Erysipelothrix rhusiopathiae* was isolated from blood cultures.

Clinical Hypothesis: *E. rhusiopathiae* is a zoonotic gram-positive coccobacillus, being domestic swine the major reservoir. It's rarely found in humans, but infection might occur from direct inoculation through skin injury and is more likely in immunosuppressed individuals, particularly if there is liver cirrhosis and alcohol abuse. In humans, infection might present as localized erysipeloid

infection, diffuse cutaneous infection or bacteremia.

Diagnostic Pathway: Our patient had both occupational [he had swine, with a history of injury with the shovel with which he manages manure two weeks prior to hospitalization] and past-medical [cirrhosis due to ARLD] that made infection by *E. rhusiopathiae* more likely. At systematic physical examination, he presented no erysipeloid lesions but had Janeway lesions instead.

Conclusions and Discussion: Previous studies suggest that 90% of *E. rhusiopathiae* bacteremia result in endocarditis. Its' affinity for aortic valve and usual resistance to vancomycin make its' exclusion highly important, which we did through transesophageal echocardiography. Knowing the behavior of the bacteremia agent and our patients' predisposing factors made us more cautious and watchful to his clinical evolution, leading to a successful cure.

PV564 / #1075

BACTERAEemia IN INTERNAL MEDICINE DEPARTMENT: A CASE SERIES

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Background and Aims: Studies estimate that about 12% of bacteraemias are due to nosocomial infections and about 15% from infections associated with healthcare. They associate with a high mortality (3 to 35%) and also an increase both in the number of days of hospitalization and in the use of health resources.

Methods: It's a cross-sectional retrospective study that included all patients with positive blood cultures admitted at the Internal Medicine Department between 01/01/2016 and 12/31/2018. Clinical files were consulted, collecting data regarding gender, age, infection focus, nosocomial or community infection, microorganism isolated, patient comorbidities, hospitalization <90 days, invasive procedures <30 days, antibiotics <90 days and deaths verified.

Results: of the 750 blood cultures included, 289 (38.5%) were nosocomial infections. 582 patients (77.6%) were older than 65 years. Regarding to infectious foci, 322 blood cultures (39.9%) were identified with respiratory focus and 312 (38.6%) with urinary focus. *E. coli* bacterium was isolated in 208 (66.7%) blood cultures with an urinary focus. Concerning the comorbidities, 557 (74.3%) patients had cardiovascular disease, 261 (34.8%) diabetes and 168 (22.4%) patients had completed antibiotics <90 days. There were 203 (27.1%) intrahospital deaths, of which 137 (67.5%) occurred in the 30 days following the harvest.

Conclusions: Concluding, 38.5% of bacteraemia were due to nosocomial infections. Individuals over 65 years were the most affected. Respiratory and Urinary were the most common infectious foci and *E. coli* bacteria the most frequently isolated microorganism. As for the most frequent comorbidities, cardiovascular disease, diabetes mellitus and dependence on activities stood out. The in-hospital mortality rate was 27.1%.

PV565 / #1091

A COMPLEX CASE OF HIV-MEDIATED CD8+ ENCEPHALITIS

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Background and Aims: The presentation of acute encephalopathy in the HIV-positive patient represents diagnostic and therapeutic challenges. CD8 encephalitis is a severe form of HIV-related acute encephalopathy that with early commencement of high-dose-corticosteroids can provide promising outcomes^[1]. We report the clinical and pathological features associated with this case of CD8 encephalitis to sensitize clinicians to its early recognition.

Methods: We present the case of a forty-one-year-old HIV-positive male who presented with a three-week history of reduced power in the right upper and lower-limbs associated with expressive dysphasia.

Results: Laboratory investigations revealed a viral-load of 78,929 and a CD4 count of 77. MRI-imaging of the brain displayed "multifocal T2 hyperintensities throughout the frontal and parietal lobes" most suggestive of opportunistic infection, namely toxoplasmosis, versus lymphoma. Failure to respond to empiric toxoplasmosis therapy prompted biopsy of the left-temporal-area demonstrating 'lymphocytic inflammation and astroglial reaction with CD8 predominant population' – hallmarks of CD8 encephalitis^[2].

Conclusions: High-dose corticosteroids were commenced resulting in considerable clinical and radiological improvement with near-complete resolution on repeat imaging. This case demonstrates diagnostic and treatment challenges that arise in the context of immunosuppression. CD-8 encephalitis is a severe CNS complication of HIV that if detected early can have a favourable prognosis.

^[1]Zarkali A., Gorgoraptis N., Miller R., John L., Merve A., Thust S. et al. CD8+ encephalitis: a severe but treatable HIV-related acute encephalopathy. *Practical Neurology*. 2016; 17(1): 42-46.

^[2]Gray F., Lescure F.X., Adle-Biassette H., et al. Encephalitis with infiltration by CD8+ lymphocytes in HIV patients receiving combination antiretroviral treatment. *Brain Pathol* 2013; 23: 525-33. doi: 10.1111/bpa.12038

PV566 / #1094

BRUCellar SPONDYLODISCITIS

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Background and Aims: Brucellar spondylodiscitis (SPD) is one of the main focused forms of brucellosis. The clinical presentation is nonspecific leading to diagnostic and therapeutic delay. We

aimed to study the epidemiological, clinical, and evolutionary features of brucellar spondylodiscitis.

Methods: We conducted a retrospective study including all patients admitted for brucellar spondylodiscitis between 1990 and 2019.

Results: We included 10 patients (8 females and 2 males). The median age was 36 years. Immunosuppression was reported in 30% of cases. Clinical findings were dominated by constitutional symptoms such as fever (80%), weight loss (70%) and night sweats (60%). Abdominal pain was noted in 3 cases. Physical examination showed splenomegaly in 4 cases and abdominal effusion in 2 cases. All patients had simultaneously others sites of TB. The main sites were lymph nodes in 8 cases, lungs in 6 cases, and liver in 4 cases. Ultrasound of the spleen was realised in 5 cases showing multiple focal hypoechoic lesions in 2 cases, isolated splenomegaly in 2 cases and splenic abscess in 1 case. Computed tomography scan showed micronodular spleen in 5 cases, multiple hypodense nodules in 3 cases, and splenomegaly with multiple fluid density formations (splenic abscesses) in 2 cases. All patients received antitubercular treatment for a median duration of 13 months [6-24]. The outcome was favorable in 9 cases and we noted one death.

Conclusions: Early diagnosis of brucellar SPD leads to a favorable outcome under adequate treatment and avoid complications.

PV567 / #1096

THE DIAGNOSTIC COMPLEXITIES OF INFECTED HEPATIC CYSTS

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Background and Aims: Cystic liver lesions represent a heterogeneous class of disorders varying in aetiology. Infected Hepatic Cysts represent a rare, yet severe complication associated with high morbidity and mortality. Aetiological distinction is essential as it influences patient management. However, this can be difficult to achieve in clinical practice.

Methods: We present the case of an 81-year-old lady who presented with a five-day history of breathlessness and right-upper-quadrant pain. On examination she was afebrile, with tenderness in the right-upper-quadrant and massive hepatomegaly.

Results: Blood tests showed elevated inflammatory markers [CRP 556 mg/L, elevated white-cells [14.2 x10⁹/L] and an obstructive liver enzyme pattern. Ultrasound abdomen revealed a large complex hepatic cyst with measured volume of 8.5L. Computed-Tomography revealed dimensions of 30x24x20cm with an appearance concerning for hydatid aetiology (*Echinococcus*) – of which CT's sensitivity approaches 94%^[1]. Piperacillin-tazobactam and albendazole therapy was commenced. Percutaneous Transhepatic Drainage of 8.5 L was performed – subsequently

culture-positive for *Escherichia-Coli*, with culture and serology negative for *Echinococcus*.

Conclusions: Clinical presentation coupled with imaging resulted in a highly suspected diagnosis of Hydatid Disease, however ELISA serology returned negative. Furthermore, some case series report 30–40% of patients with hepatic cystic echinococcosis as antibody negative^[2]. Ultimately, while definitive percutaneous drainage was performed, this case highlights the complexity and diagnostic uncertainty of hepatic cystic infection.

^[1]Marrone G., Crinò F., et al. Multidisciplinary imaging of liver hydatidosis. *World J Gastroenterol.* 2012;18:1438-1447.

^[2]Zhang W., McManus D.P., Recent advances in the immunology and diagnosis of echinococcosis. *FEMS Immunol Med Microbiol.* 2006;47: 24-41

PV568 / #1104

ACINETOBACTER BAUMANII INFECTIONS: EPIDEMIOLOGY AND MICROBIOLOGICAL PARTICULARITIES

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Background and Aims: *Acinetobacter (A) baumannii* is an opportunistic pathogen which can cause nosocomial infections especially for immunocompromised individuals. Its capacity to acquire genes for resistance to antibiotics is the cause of various and severe infections. The aim of our study is to present epidemiological data and microbiological particularities of *A. baumannii* infection.

Methods: A retrospective (2013-2019) study was performed in the Infectious Diseases department in Sfax (Tunisia), reviewing cases with *A. baumannii* infections. We excluded all colonization cases. The study of antibiotic susceptibility was made by disc method according to CA-SFM standards. Susceptibility to colistin and tigecycline was determined by CMI.

Results: Sixteen patients (6 men and 10 women) with a median age of 55 years [20-75] were included. Five patients (31%) were diabetic. A recent hospitalization was noted in 6 patients (33%). A healthcare-associated infection was found in 7 cases (44%) with a median time of hospitalization of 8 days [2-30]. The most common infection entities were pleuropulmonary infection (31.3%) urinary tract infection (25%), soft-tissue infection (25%), bacteremia (12.5%) and malignant otitis externa (6.2%). Recent hospitalization, healthcare-associated infection and previous antibiotic therapy were not risk factors to acquire resistance to cephalosporin of 3rd generation ($p > 0.5$). The resistance to ceftazidime, fluoroquinolone, cotrimoxazole, aminoglycosides and rifampicin was respectively 94%, 81%, 66.7%, 50%, 16.6%. A carbapenem was noted in 73% of cases. The strains tested were susceptible to colistin in 100% of cases and to tigecycline in 90% of cases.

Conclusions: *A. baumannii* is responsible of various sites of infection in patients who had risk factors. The high resistance rate of this bacteria to different antibiotics is the main cause of treatment difficulties.

PV569 / #1109

PLEURAL TUBERCULOSIS

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Case Description: A 34 year old man, with past smoking habits, presented with 4 months history of pleuritic chest pain, fever, night sweats and asthenia. He had previously hospital staying 3 months earlier with the same symptoms. He was discharged without symptoms, after a course of antibiotherapy following a chest radiograph with left pleural effusion, blood tests with inflammatory markers and a thoracentesis revealing a pleural exsudates, with 1700 cells and adenosine deaminase (ADA) 25 U/L.

Clinical Hypothesis: The primary differential diagnoses was an infection such tuberculosis (TB), including pleural TB with or without pulmonary or a sequelae of an empyema. Auto-immune pathology or malignancy, including primary or metastatic disease (more common in older patients) was others potential clinical hypothesis.

Diagnostic Pathways: On readmission, thoracic computed tomography with left pleural effusion. Thoracentesis reveals lymphocyte predominance, ADA 47U/L and glucose 61 mg/dL. Bronchoalveolar lavage cultures were negatives. DNA *Mycobacterium Tuberculosis* was detected in pleural effusion. A pleural biopsy was performed revealing fibrose lesions, granulomas of epithelioid cells, giant cells. This leaves to the diagnosis of pleural TB without pulmonary involvement. He started anti-tuberculostatic, with improvement.

Conclusion and Discussion: Pleural disease diagnostics involves different pathologies and the fluid analysis remains the keystone for diagnostic. In this case, the pleural fluid ADA level inferior a 40 U/L and no *Mycobacterium Tuberculosis* isolation let to a false reassurance of a non-tuberculosis diagnosis, delaying the diagnosis. But the reappearance of the symptoms and a higher index of suspicion led to a new cultures and pleural biopsy which confirmed the diagnosis, remaining these the gold standard for the diagnosis.

PV570 / #1112

POSTABORTION OVARIAN VEIN THROMBOSIS

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Background and Aims: Ovarian vein thrombophlebitis (OVT) is a rare postpartum or postabortion complication. Due to its atypical symptoms, its diagnosis remains difficult. It can lead to complications which threaten the patient's life.

Methods: We report the case of a post-abortion OVT.

Results: A 21-year-old woman was admitted for a spontaneous abortion at 24 week's gestation. Before the abortion, she complained of pelvic pain and fever. Delivery was complete but the patient still had fever. She was started on a regimen of intravenous ampicillin. Blood's culture, vaginal and urine samples obtained prior to institution of therapy were negative. On examination, there was tenderness of the right iliac fossa and painful lumbar shaking with a normal gynecological examination. Labs revealed leukocytosis. Abdominopelvic ultrasound showed an intraperitoneal fluid effusion. Cefotaxime, metronidazole and gentamycin was started after stopping ampicillin. Therefore, due to the non-improvement after 3 days' treatment, a CTscan was performed showing a globular uterus, a thickening of the right tube with spontaneous heterogeneous density of the right ovary and dilation of the right ovarian vein with an hyperdense content corresponding to an OVT. Anticoagulant treatment was started. But the patient remained febrile, we switched to imipenem, teicoplanin associated with metronidazole. After 15 days of antibiotic and curative anti-coagulation, the outcome was favorable. The duration of antibiotic therapy was two months. The anticoagulation was continued for 6 months.

Conclusions: The diagnosis of TVO should be considered early in the care of patients readmitted after vaginal delivery. If prompt defervescence does not occur with antibiotic therapy, CTscan should be obtained for prompt diagnosis and therapy.

PV571 / #1118

HYPERINFECTION SYNDROME BY STRONGYLOIS STERCOLARIS

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Case Description: 62-year-old female, native from Brazil (lived there 40 years), history of arthritis medicated with prednisolone 5 mg/day for two years, presents to the Emergency Room with one-month history of bloodless diarrhea, weight loss and new-onset fever. She had already done a colonoscopy which showed ulcers and an upper endoscopy that revealed esophageal candidiasis. Physical exam was unremarkable, aside from notorious weight loss. Analysis: leukocytosis, neutrophilia; HIV and SARS-CoV-2 were negative. CT-scan revealed swollen walls of the stomach, duodenum and jejunum. She was hospitalized and medicated with fluconazol. Twenty-four hours later she developed respiratory

insufficiency, hypotension and became somnolent. X-ray: bilateral pulmonary opacities. CT-scan: bilateral crazy-paving.

Clinical Hypothesis: Infection by *Cytomegalovirus*, *Pneumocystis jirovecii*, SARS-CoV-2.

Diagnostic Pathways: An unfavorable clinical course in 12 hours with septic shock, worsening respiratory failure and need to initiate non-invasive ventilation was observed. Blood tests showed leukocytosis, without neutrophilia, lymphopenia or eosinophilia, and increased C-reactive protein 322 mg/L. Stool parasitological examination revealed *Strongylois stercoralis* larvae, all other microbiologic culture and autoimmune analysis were negative. Rapid intubation was required to perform bronchofibroscope, which showed diffuse alveolar hemorrhage, and the patient admitted to an intensive care unit with albendazole and ivermectin. Endoscopy biopsies corroborated the diagnosis. For bacterial coinfection, piperacilin-tazobactam was added. A ECMO-VV trial was attempted, but the patient worsened quickly and died.

Conclusion and Discussion: Strongyloidiasis is an endemic parasitosis in Brazil, usually asymptomatic; but, in immunosuppressed patients, like this, it causes life-threatening diseases. Clinicians must be aware that people who lived or live in endemic areas, when immunocompromised might develop serious complications.

PV572 / #1147

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. *Escherichia coli* causes most pyelonephritis. Aims: 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 aim of this study was to determine the clinical, epidemiological and laboratory characteristics of patients with acute pyelonephritis.

Methods: The data were retrieved from patient's clinical records. Statistical analysis was performed using Microsoft Excel 2016®.

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. The mean length of stay was 8 days; 4 patients (3.5%) were diagnosed with acute bilateral pyelonephritis. The most frequently identified risk factors were age over 60 years (n=66; 57.9%), recurrent UTI (n=33; 28.9%), previous UTI in the last 90 days (n=33; 28.9%), presence of urinary stones (n=33; 28.9%) and immunosuppression (n=33; 28.9%); Fever was the most frequent sign (n=82; 71.9%). The most used antibiotic was ceftriaxone (n=77; 67.5%) and the microorganism

most frequently isolated in the urine culture is *Escherichia coli* (n=54; 49.1%).

Conclusions: Older patients had a greater need for hospitalization due to comorbidities and associated risk factors. Women were the predominant sex due to their anatomical peculiarities inherent to the gender. Urine culture is recommended prior to antibiotic therapy to assess the susceptibility of the microorganism and to target antibiotic therapy.

PV573 / #1149

MALIGNANT OTITIS EXTERNA: RISK FACTORS AND THERAPEUTIC DIFFICULTIES OF COMPLICATED FORMS

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Background and Aims: Malignant otitis externa (MOE) is a serious disease, which can spread to adjacent structures causing many complications. Our objective is to assess epidemiological, clinical characteristics, risk factors and therapeutic modalities of complicated forms.

Methods: A retrospective study carried in the infectious diseases department including cases of MOE (2013-2019). Complicated MOE is defined by extension into the mastoid, skull base and intracranially. Our population is divided into: G1, complicated MOE (CMOE), G2: uncomplicated MOE

Results: of 68 patients (SR=1.06), 26.5% were diagnosed with CMOE (n=18). The median age was 60 years in both groups (p >0.05). The median diagnostic delay was 98 days in G1 versus 76 days in G2 (p >0.05). Diabetes was found in 72% of cases in CMOE. Earache (72%), otorrhea (61%), and headache (56%) were the most common symptoms. The principals complications of MOE were facial paralysis (34%), mastoiditis (28%), meningitis (16%) and thrombophlebitis (11%). The responsible germ of G1 was *Pseudomonas aeruginosa* (55%) and *Candida Spp* (34%). G1 were associated to osteolysis (61%) and acute otitis media (50%). A suitable antibiotic or antifungal treatment was indicated in all patients. Two patients with CMOE received hyperbaric oxygenotherapy. The median time of hospitalization was 17 and 14 days for G1 and G2 respectively. In G1, the median duration of treatment was longer (p <0.05). Two cases with sequelae (facial paralysis) were observed. A recurrence was noted in 44% of cases in G1 versus 28% in G2.

Conclusions: CMOE can caused therapeutic difficulties and has been associated with a high degree of morbidity, necessitating early diagnosis and timely treatment.

PV574 / #1151

CALCIFIED HEPATIC HYDATID CYST

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Case Description: A 70-year-old man presented to the emergency department with a 1-week history of watery diarrhea. A physical examination revealed diffuse abdominal pain. Laboratory studies were notable for acute kidney injury and elevated levels of c-reactive protein. The patient performed a computed tomography of the abdomen that did not detect any acute alterations, but it showed a massive calcified round mass in the right lobe of the liver, with 8 cm of diameter.

Clinical Hypothesis: Asking the patient in this respect, he confirmed the diagnosis of hepatic hydatid cyst, known for over 30 years.

Diagnostic Pathways: Relative to his clinical condition, it was admitted a gastroenteritis and he got better.

Conclusion and Discussion: Hydatid cysts of the liver are caused by parasites of the genus *Echinococcus*. The right lobe is affected in 60-85% of cases and calcification usually requires 5-10 years to develop. Most cysts are found accidentally in imaging studies and have a benign course.

PV575 / #1156

CASE REPORT: FROM PERIORBITAL CELLULITIS TO MENINGITIS

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Case Description: A 74-year-old woman, with dyslipidemia, present with a 3-day history of unilateral reddish periorbital oedema. She denied eye pain, photosensitivity, decreased vision and limited extraocular motility. There was no history of trauma or upper respiratory infection. The patient was hemodynamically stable, temperature was 37.7°C and oxygen saturation was 98% in room air. On physical examination, erythema and edema of the skin around the right eye were observed. Neurologic exam was normal. The laboratory evaluation was normal except for PCR 19,2 mg/dl. An orbital computed tomography was normal. The patient was admitted and was treated with vancomycin. On the 9th day of hospitalization, the patient presented space-time disorientation and confused speech. Meningeal signs were negative and the remaining neurological examination was normal. She had a white blood cell count of $15,600 \times 10^9/l$ and PCR of 173 mg/dl. Chest radiography, routine urinalysis and computed tomography of the head were normal. The patient had a lumbar puncture and the analysis of cerebrospinal fluid was compatible with meningitis. She was treated with antimicrobial therapy with favorable clinical and analytical evolution, without isolation of the agent.

Clinical Hypothesis: Periorbital cellulitis.

Diagnostic Pathways: laboratory evaluation; computed tomography of the head; Chest radiography; routine urinalysis; lumbar puncture.

Conclusion and Discussion: This clinical case represents the importance of treating facial cellulitis with the appropriate antibiotic due to the potential complications such as meningitis specially in the elderly.

PV576 / #1161

DISSEMINATED TUBERCULOSIS – A TROUBLED DIAGNOSIS

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Case Description: We present a case of a 78-year-old male who was autonomous until 3 months ago, when he started to lose weight and to have disorientation and gait unbalance. He had a history of plasma cell dyscrasia under study, chronic kidney disease of unknown etiology and silicosis. He was admitted to the hospital, with a worsening renal function, with light chain proteinuria, hepatic cytocholestatics, a marked temporo-spatial disorientation and gait instability.

Clinical Hypothesis: Despite the general trends of decreasing tuberculosis rates, Portugal remains one of the countries with the highest burden of tuberculosis in Europe, so, in this case, it should be a hypothesis. Other diagnosis could be considered such as granulomatous diseases, or a neoplastic process or even an infiltrative disease such as AL amyloidosis (which is a hypothesis to consider since he had a plasma cell dyscrasia under study).

Diagnostic Pathways: Gastric content and respiratory secretions were first collected, both negative for Koch's bacilli. A lumbar puncture was performed with a slight proteinorrhachia but without cells. The cerebral MRI suggested an infectious process disseminated in the brain. Bone marrow and hepatic biopsies revealed the presence of non-necrotizing epithelioid granulomas. Bronchoalveolar lavage and urine collection showed Koch bacilli. This led to the diagnosis of disseminated tuberculosis with involvement of the central nervous system, kidney, liver, bone and lung. He started antituberculous therapy with marked improvement.

Conclusions: Diagnosing tuberculosis is challenging, but a high level of suspicion and a proactive diagnostic attitude leads to the correct approach to these patients.

PV577 / #1173

OSTEOMYELITIS DUE TO *PREVOTELLA DENTICOLA* IN A PATIENT WITH SICKLE CELL DISEASE

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Case Description: Sickle cell disease is a common inherited blood disorder, affecting primarily patients of African ancestry in Portugal. Its main acute complications are vaso-occlusive crises. *Prevotella* species are Gram-negative, necessarily anaerobic and most frequently associated with dental procedures. We report a case of a case of infection due to *Prevotella denticola* in a patient with no previous dental manipulation. A 21-year-old male, native of Cape Verde, with medical history of sickle cell disease and a recent hospitalisation for vaso-occlusive crisis, was brought to the emergency service with a clinical picture of jaundice, chills and right knee pain and oedema. Upon examination the patient was afebrile, had scleral icterus, normal blood pressure, tachycardia and the right knee was swollen, warm and painful on palpation.

Clinical Hypothesis: The clinical hypothesis was septic arthritis and vaso-occlusive crisis

Diagnostic Pathways: Complete blood count revealed Haemoglobin of 8.8 gr/dL, erythroblasts and leucocyte count 30,090 cel/uL with neutrophilia. C-reactive protein 29.5 mg/dL and total bilirubin 14.8 mg/dL. A diagnostic arthrocentesis was performed with effusion suggestive of septic arthritis and the culture of the synovial fluid identified *Prevotella denticola*. Right knee and upper leg x-ray showed onion skin periosteal reaction on the distal femur and magnetic resonance imaging confirmed osteomyelitis.

Conclusion and Discussion: The patient was treated with antibiotics and submitted to a distal femur corticotomy and a right knee arthroscopy. *Prevotella* infections are rare and are mainly associated with dental procedures, and no cases of septic arthritis due to *Prevotella denticola* are reported in the literature.

PV578 / #1182

AN IMMUNOCOMPROMISED STATUS HIV NEGATIVE

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Case Description: The authors present a woman, 72 years old, who came to the emergency room with dyspnea for little efforts and paroxysmal nocturnal dyspnea. She has several comorbidities like asthma, SLE, Sjogren S., diabetes, hypertension, atrial fibrillation, dyslipidemia and obesity and she was polymedicated, including

fluticasone + formoterol and deflazacorte, since the SLE diagnosis, for at least 25 years. The exams reveals a decompensated heart failure on B profile with BNP elevated, pleural effusion and respiratory insufficiency which requires hospitalization. After one week of hospitalization she mentioned odynophagia, nausea and vomiting, epigastric pain and asthenia. We were able to see an oral candidiasis and the endoscopy revealed an esophageal candidiasis.

Clinical Hypothesis: At this level we started to search for a status of immunosuppression, like HIV, primary immunodeficiency or immunosuppressive medication.

Diagnostic Pathways: She was HIV negative, she does not have hematologic malignancies or solid organ cancer, but she was taking oral and inhaled corticosteroids. She has diabetes and is elderly.

Conclusion and Discussion: We started to reduce the oral corticosteroid but she needed to continue the inhaled one. She started therapy with fluconazole 200mg for 14 days. We adjusted her medication to compensate for heart failure and she got home without oxygen supplementation. With this case we want to emphasize that esophageal candidiasis can occur in patients without HIV, who are immunocompromised by other factors like corticotherapy, diabetes and older age. We also want to remember the adverse effects of oral corticotherapy and the need of switching for corticosteroid savers.

PV579 / #1208

VISCERAL LEISHMANIASIS IN AN IMMUNOCOMPETENT PATIENT

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Case Description: A previously healthy 26-year-old man presented to the emergency department with a 6-month history of fever, fatigue and an unintentional 12 kilogram weight loss. On observation, splenomegaly was palpable. Further studies revealed a leucocytopenia and anemia. Blood cultures as well as serologies for HIV, HBV, HCV, Epstein-Barr virus, and Cytomegalovirus were negative. Abdominal CT confirmed a heterogeneous hepatosplenomegaly. Examination of a bone marrow aspirate revealed the presence of amastigotes within the macrophages cytoplasm. The patient started treatment with liposomal amphotericin B leading to complete resolution.

Clinical Hypothesis: The differential diagnosis in a patient with fever and splenomegaly must include other infective causes such as typhoid, tuberculosis, leptospirosis; autoimmune disorders such as rheumatoid arthritis, sarcoidosis, amyloidosis and systemic erythematous lupus and haematological disorders such as leukaemia, lymphoma, polycythaemia vera and myelofibrosis.

Diagnostic Pathways: Bone marrow aspirate revealed the presence of amastigotes within the macrophages' cytoplasm, a classic appearance of *Leishmania spp.*

Conclusion and Discussion: The patient started treatment with liposomal amphotericin B leading to complete symptom resolution and splenomegaly. Leishmaniasis is a globally widespread zoonosis that is transmitted by the bite of an infected female phlebotomine sandfly. Domestic dogs are the parasite reservoirs. Clinically, leishmaniasis is subdivided into cutaneous, mucocutaneous and visceral (kala-azar) forms. The most severe form is Visceral leishmaniasis (VL) that is characterized by a disseminated intracellular protozoan infection that targets tissue macrophages in the liver, spleen and bone marrow. Both *Leishmania infantum* and *Leishmania donovani* can cause VL, being *L. infantum* the most prevalent pathogen in the Mediterranean countries. Our case raises awareness of VL in immunocompetent patients that should be included in the diagnostic workup of patients with splenomegaly.

PV580 / #1209

INVASIVE PNEUMOCOCCAL DISEASES

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Background and Aims: Invasive pneumococcal disease (IPD) refers to disease in which the bacterium enters a sterile site (blood, cerebrospinal fluid, pleural fluid). IPD often proves rapidly fatal, even where medical treatment is available. The aim of this study is to describe clinical and therapeutic particularities of IPD.

Methods: This is a retrospective study including cases of IPD over a 5-year-period. (2014-2019)

Results: of 16 patients, 11 were males with a mean age of 47±16 years. Comorbidities observed in 12 (75%) cases were mainly Diabetes mellitus, COPD. Two patients (12.5%) have received anti pneumococcal vaccine. The most common clinical condition observed was meningitis (56.2%) followed by pneumonia (43.8%). In pneumonia, *S. pneumoniae* was isolated from sputum (3 cases) and blood (7 cases). For meningitis, 77.7% had an associated encephalitic component. Pneumococcal meningitis was confirmed with lumbar puncture: culture (7 cases) or PCR (2 cases). All isolates were sensitive to levofloxacin and glycopeptid. Antibiotic treatment is usually empirical, based on cefotaxime or ceftriaxone (93.5%). An association was necessary in 8 cases: vancomycin (n=5), Levofloxacin (n=2), fosfomicin (n=1). Treatment duration was 16 days for meningitis and 12 days for pneumoniae. Complications of meningitis included ventriculitis (1 case), cerebral venous thrombosis (2 cases). Pneumococcal pneumonia was associated to a pleural effusion in 5 cases. The evolution was favorable in all cases.

Conclusions: IPD has poor prognosis and penicillin-resistant strains have become increasingly common. This study emphasizes the importance of judicious use of antibiotics, and pneumococcal vaccine in order to limit complicated forms.

PV582 / #1246

PRIMARY PYOPERITONEUM COMPLICATED BY ACUTE PYLEPHLEBITIS : AN UNUSUAL CAUSE OF ABDOMINAL PAIN IN A PATIENT WITH TYPE 2 DIABETES MELLITUS

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Case Description: A 65-year-old female, a known case of type 2 diabetes mellitus, non-compliant with her oral hypoglycemic medication presented with episodic abdominal pain and diarrhea. Patient gradually developed abdominal distension and dyspnea. On general physical examination, hypotension was noted. Abdomen was distended with positive shifting dullness without any guarding or rigidity. Lung auscultation revealed reduced breath sounds with dullness on percussion in right infra-axillary region. Traube space was dull on percussion. Other systemic examination was unremarkable.

Clinical Hypothesis: On the basis of history and physical exam, a few differentials were thought of 1) Intra-abdominal abscess, 2) Ascites due to underlying cirrhosis secondary to non-alcoholic fatty liver disease, 3) Budd-Chiari syndrome, 4) Intra-abdominal malignancy and 5) Abdominal tuberculosis.

Diagnostic Pathways: Abdominal ultrasound revealed extensive porto-systemic anastomoses and gross ascites. Purulent ascitic fluid was tapped with fluid culture growing *Klebsiella pneumoniae*. CECT abdomen revealed presence of extra hepatic portal vein obstruction with peritonitis and intra-abdominal fluid collections. Workup for secondary etiologies of pyoperitoneum did not yield any cause.

Conclusion and Discussion: Abdominal pain in an adult with type 2 diabetes mellitus requires an exhaustive diagnostic exercise with a wide range of possible etiologic factors. Primary peritonitis should be considered as a rare differential for abdominal pain in diabetic patients and such patients require early institution of antibiotics, aggressive fluid resuscitation and adequate surgical control. In conclusion, patients with diabetes mellitus warrant an extensive workup for abdominal pain due to the multitude of disorders causing the problem.

PV583 / #1315

EXTRAPULMONARY MYCOBACTERIAL DISEASE IN AN IMMUNOCOMPROMISED HOST

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Background and Aims: This case report highlights the importance of considering uncommon extrapulmonary manifestations of mycobacterial disease (tuberculous and non-tuberculous) and the importance of treatment in an immunocompromised host.

Methods: Patient case study during hospitalisation.

Results: Male, 56 years old. Is referred to the Emergency Department due to anemia (Hb 5,7 g/dL) found in routine blood tests, fever and significant weight loss within one month. At the admission work-up revealed anemia, leucopenia, thrombocytopenia, increased values of liver markers, lactate dehydrogenase and positive HIV serological test. Abdominal CT scan has shown the presence of multiple abdominal adenopathies and splenomegaly. He started corticotherapy, received blood transfusions and started antiretroviral therapy. Bone marrow biopsy revealed the presence of granulomatous inflammation and positive Ziehl-Neelsen stain, positive blood marrow PCR for tuberculous and nontuberculous mycobacteria without the possibility to differentiate them by marrow culture. Bone marrow mycobacterial disease was assumed and started antituberculous treatment together with clarithromycin. Respiratory and peripheral blood specimens were negative for Ziehl-Neelsen stain and PCR for mycobacteria. Due to the severity of immunosuppression (CD4: 7/mL; 3%) blood PCR for CMV was requested and was positive so treatment with ganciclovir was also started. Pancytopenia stabilized without transfusions and the patient was afebrile until medical discharge.

Conclusions: Bone marrow mycobacterial disease is a rare and oftentimes delayed diagnosis. Pancytopenia is a consequence of bone marrow infiltration and reversed after the treatment starts. Because of the non agent identification of the bone marrow blood culture for typical and atypical disease, treatment for both entities was continued.

PV584 / #1317

AN ACQUATIC LESION ON THE MAINLAND: A SUSPICIOUS FLARE IN AN ELDERLY IMMUNOSUPPRESSED WOMAN.

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Background and Aims: 81 year-old female came to our ED for worsening edema, exertional dyspnea and pain in the right knee. In her past medical she presents rheumatoid arthritis in therapy with hydroxychloroquine, methotrexate and steroid.

Methods: Physical examination was normal except from edema, multiple papular and nodular lesions in the lower limbs. Blood tests revealed normochromic and normocytic anemia, increase in phlogosis indices and chronic renal failure. Topical therapy and Levofloxacin were started, suspecting latent tuberculosis quantiferon test (QTF) was performed, and after the finding of positivity prophylactic isoniazid was started.

Results: Since there was no clinical improvement skin swab and biopsy of the lesions were performed: both tested positive

for *Mycobacterium marinum*. Therapy with rifampicin and clarithromycin was promptly started and continued for 6 weeks until skin picture resolution,^[1] moreover, seen the infectious state, methotrexate was suspended, and steroid therapy was reduced. In consideration of the cross-reactivity of *Mycobacterium marinum* with *Mycobacterium tuberculosis* to QTF, administration of Isoniazid was suspended.

Conclusions: Few cases of infection from *M. Marinum* are reported in the world and there are no clinical studies large enough to be able to express absolute recommendations for treatment. Diagnosis is based on isolation from biopsy material and culture. While the infection is highly related to aquatic exposure, in most cases a source of contagion is not evident as it is described in our clinical case.

[1]Griffith, D. E. et al. An official ATS/IDSA statement: diagnosis, treatment, and prevention of nontuberculous mycobacterial diseases. *Am. J. Respir. Crit. Care Med.* 175, 367–416 (2007)

PV585 / #1323

MEASLES IN PREGNANCY: FREQUENTLY ASKED QUESTIONS

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Background and Aims: When measles occurs during pregnancy, maternal and fetal morbidity is increased. Particularly pregnant women are exposed to a higher risk of severe respiratory distress that might cause death. The aim of our study is to describe the therapeutic approach during the 2018's epidemic.

Methods: It is a retrospective study, including all pregnant women infected or exposed to measles, between December 2018 – August 2019.

Results: In total, ten patients were collected. The mean age was 30 ± 3.5 years. Two patients had a history of dysthyroidism. Only one patient, at 26 weeks' gestation, was symptomatic. She presented with fever, conjunctiva and productive cough. Clinical examination showed a generalized maculopapular rash, conjunctivitis and bi basal crackles. Biologically, CRP was positive with lymphopenia and cytolysis at twice the normal. From a therapeutic standpoint, antibiotic therapy based on third generation cephalosporin was associated with symptomatic treatment. The diagnosis of measles was retained in view of the rash fever, the epidemiological context and contact with a measles case. The outcome was favorable with normalization of the biological assessment and normal course of pregnancy. Non-immune pregnant women (n=6) exposed to measles received an immunoglobulin prophylaxis (200 mg/Kg/j) within 6 days after contact in order to reduce the risk of infection and severe morbidity. For immune patients, they did not require any special medication.

Conclusions: Measles are viral diseases that may adversely affect

nonimmune pregnant women and their fetuses/neonates. The prevention can be achieved through measles vaccination before pregnancy.

PV586 / #1324

VIRAL MENINGITIS: EPIDEMIOLOGIC AND CLINICAL PARTICULARITIES

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Background and Aims: Viruses are in increasingly important cause of meningitis. The diagnosis is based on clinical practice, cytochemical and bacteriological study of cerebrospinal fluid (CSF), especially in view of the development of PCR. We aimed to describe the epidemiological and clinical characteristics of viral meningitis.

Methods: This is a retrospective study, including cases of viral meningitis (with or without encephalic involvement), hospitalized in an infectious diseases department over a period of 9 years (2010-2019). The viral agent was retained by PCR and/or Serology.

Results: We collected 153 patients (94 men). The average age was 30 years. No history was noted in 87.6% of cases. The onset of symptoms was sudden (78.4%). Viral meningitis presents with headache (92.2%), fever (86.3%) and neck stiffness (85.6%). The main neurological abnormalities were altered mental status (14.6%), seizures (9.8%) and focal neurologic deficits (3.3%). CSF findings included an elevated white blood cell count with a lymphocytic predominance (97.4%), a high proteins level (33.3%) and a normal glucose level (88.9%). HSV (8.5%), West Nile Virus (4.7%), mumps (5.9%), Rubella (4.6%), VZV (2%) and HIV (0.7%), caused meningitis. Viral agent was not found in the remaining cases. Cerebral MRI was pathologic in 20 cases. For HSV, VZV and HIV, specific treatment was instated. For other cases, treatment was supportive. The evolution was favorable in 98%.

Conclusions: Despite improvements in diagnosis of viral meningitis, many cases remain without an identified virus. There are no established treatments other than acyclovir. Further research is required into diagnostic tools and treatments.

PV587 / #1325

TUBERCULOUS MENINGOENCEPHALITIS ASSOCIATED WITH BRAIN TUBERCULOMAS DURING PREGNANCY: A CASE REPORT

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Background and Aims: Tuberculous meningitis (TBM) is globally highly prevalent in resource-limited countries and in immunocompromised patients. Central nervous system tuberculosis is one of the severest forms of extra pulmonary

tuberculosis during pregnancy, especially with the difficulties in the therapeutic management of this form.

Methods: We showed a case of TBM in a pregnant woman hospitalized in an Infectious Disease Department.

Results: We present a 24-year-old, pregnant woman, who at 22 weeks of pregnancy manifested signs and symptoms of meningoencephalitis with decreased level of consciousness, hemiparesis, and generalized recurrent seizures. Based on medical history, cytochemical changes in cerebrospinal fluid (mild mononuclear pleocytosis (220WC), decreased level of glucose, positive PCR-BK), and cerebro-medullary MRI constatations (multiple tuberculomas, arachnoiditis of the base and posterior epiduritis spread over the entire spine), the diagnosis of TBM was retained. Antituberculous therapy (rifampicin, ethambutol and isoniazid) was initiated on the fourth day of admission associated to corticosteroids (dexamethasone) and antiepileptic drugs. Given the severity and extension of the lesions, pyrazinamide was added after a pharmacovigilance survey. Pregnancy monitoring was regular. Morphologic ultrasound at 26 weeks did not show any abnormalities. The delivery was by cesarean section at 34 weeks. The newborn was in good health with no visible deformities. On long-term follow-up after delivery, after 21 months of treatment, she was cured with sequelae left hemiparesis without any additional complications.

Conclusions: In countries with a high prevalence of tuberculosis, screening for central nervous system tuberculosis should be considered in the differential diagnosis of meningitis in pregnancy. Cerebral imaging is essential to establish the diagnosis.

PV588 / #1348

SEVERE CASE OF EXTRAINTESTINAL MANIFESTATION OF TYPHOID FEVER: A CASE REPORT

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Background and Aims: Typhoid fever is a potentially multisystemic disease with a wide variety of symptoms ranging from minor gastroenteritis to fatal multiorgan failure. It is caused by *Salmonella enterica* serotypes *typhi*, and the less common *paratyphi*. We present a rare case of a rapidly progressing manifestation of the disease on an otherwise healthy individual.

Methods: A 19-year-old man presented to the ER with persisting fever, malaise and generalized lymphadenopathy. He reported no medical history or additional symptoms prior to this instance. Initial imaging revealed pericardial effusion, bilateral pulmonary infiltrates and acalculous cholecystitis. Physical examination and laboratory tests were consistent with sepsis. Further investigation ruled out endocarditis and SARS-CoV-2 infection while blood, urine and stool cultures came up negative.

Results: Based on the initial presentation and the multiorgan involvement, typhoid fever was suspected and was further

supported by the elevated Widal antibodies. Ciprofloxacin was added to the antibiotic regiment and the patient presented signs of recovery shortly after. Upon cardiologic examination, following routine ECG, Brugada syndrome was found as an underlying condition. The patient made a full recovery with no residual disease on subsequent visits, while the Widal antibodies reached their highest values one week after discharge.

Conclusions: This is a prime example of the diverse presentation of typhoid fever, and the absence of symptoms from the gastrointestinal tract is worth mentioning. The diagnosis was based on the extraintestinal manifestation of the disease as the immediate administration of antibiotic therapy due to the patient's toxic state hindered the isolation of the pathogen.

PV589 / #1356

SYPHILITIC ANEURYSM – A RARE FINDING

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Case description: Male, 51 years old, divorced, 30 pack-years smoking history and recurrent alcohol consumption (2L of wine/day). No other relevant medical history. The patient resorted to the emergency department (ED) due to left upper limb edema, hoarseness, anorexia, asthenia and weight loss over a month. It was noted a left maxillary mass, referred by the patient as a dental abscess.

Clinical Hypothesis: Superior vena cava syndrome, Constitutional syndrome, Dental abscess.

Diagnostic Pathways: In the ED: a chest x-ray showed an aortic arch mass; which was confirmed as an aortic aneurysm by chest CT, with no signs of dissection; CT scan also showed left pleural effusion, a perihilar formation and mediastinal lymphadenopathy. During admission: positive RPR and VDRL tests and skin lesions indicating secondary syphilis with cardiovascular implications (aneurysm). The left maxillary mass was studied with x-ray and CT showing two osteolytic lesions and several lymphadenopathy. One of the lesions was biopsied demonstrating a poorly differentiated carcinoma, probably lung cancer. A bronchofibroscopy was considered but not performed because of the aneurysm's rupture risk.

Conclusion and Discussion: The patient was discharged while waiting for the biopsies' results. Unfortunately there was no time to start cancer treatment because his general condition kept getting worse and eventually the patient died. This case study is interesting because, not only shows a rare entity (syphilitic aneurysm), but also several other complicated diagnosis in the same patient and the difficulty of handling them all in the best interest of our patients.

PV590 / #1363

SAPROCHAETE CAPITATA CATHETER-RELATED BLOODSTREAM INFECTION IN A PATIENT WITH CENTRAL NERVOUS SYSTEM VASCULITIS: CASE REPORT.

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Case Description: A 56 year old woman previously on low-dose azathioprine for lupus was admitted to the ICU with an intracavitary infection. Despite improvement following extended spectrum antibiotics, she persisted with an aggressive, agitated behavior marked by confusion and incoherent speech. Brain and spinal MRIs were consistent with CNS vasculitis. A 5 day course of methylprednisolone (1 g/day) was then started and followed by 1g of cyclophosphamide. She however developed new leukocytosis and worsening mental status.

Clinical Hypothesis: Infectious disease superimposed on lupus encephalitis.

Diagnostic Pathways: Blood and catheter-tip cultures were positive for *Saprochaete capitata*. We proceeded with amphotericin B at a dose of 5 mg/kg/day and oral voriconazole 600 mg/day as loading dose followed by 400mg/day maintenance dose. The leukocytosis subsided after 5 days and amphotericin B could be discontinued by 10 days of treatment. Voriconazole was further continued for 14 days.

Discussion and Conclusion: Invasive fungal infections are an increasing cause of morbidity and mortality for severely ill patients. The rare species *Saprochaete capitata* has been largely associated with profound neutropenia, usually in the setting of malignancy or organ transplant. In those cases, mortality rates have been as high as 80%. To our knowledge this is the first report in a patient treated for autoimmune disease. Despite the lack of standardized fungal breakpoints for this species, rapid recognition and treatment with amphotericin B and voriconazole have been proved effective.

PV592 / #1410

NOT EVERYTHING IS COVID-19

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Case Description: A 49-years-old male, owner of a dog, a cat, sheep and chickens, went to the emergency room due to dyspnea and non-productive cough. He had breathing difficulties and severe hypoxia (P/F 80). Workup showed neutrophilic leukocytosis, high C-reactive protein and procalcitonin, negative *Streptococcus Pneumoniae* and *Legionella* antigens, negative

blood cultures; diffuse heterogeneous infiltrate on chest x-ray, a consolidation on the right pulmonary field with air bronchogram and also left smaller consolidations on chest CT and negative SARS-CoV-2 nasopharyngeal swab. He was admitted due to pneumonia acquired in the community of undetermined etiology and ceftriaxone 2g id + azithromycin 500mg id was started. Despite the initial decrease in the inflammatory parameters he developed refractory hypoxemia.

Clinical Hypothesis: The first diagnostic hypothesis was COVID-19. However, given the value of procalcitonin, CT findings and negative SARS-CoV-2 test, a bacterial etiology became the most likely.

Diagnostic pathways: In the face of a nonresolving pneumonia and the absence of microbiological isolations, the study proceeded: negative HIV, influenza A, B, RSV and adenovirus and negative *Mycoplasma* and *Chlamydia pneumoniae* DNA on bronchial secretions. Given the contact with birds, *Chlamydia psittaci* DNA was also searched and it was positive.

Conclusion and Discussion: Psittacosis diagnosis was made and doxycycline 100 mg id was started with clinical improvement. In the middle of a pandemic not everything is COVID-19. *C. psittaci* is a cause of pneumonia that often goes unrecognizable whose main reservoir are birds but transmission by other animals although rare has been described.

PV593 / #1414

RETROPECTIVE ANALYSIS OF COMMUNITY ACQUIRED PNEUMONIA DUE TO STREPTOCOCCUS PNEUMONIAE IN A LOCAL HOSPITAL

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Background and Aims: *S. pneumoniae* is the most frequent cause of community-acquired pneumonia (CAP). This study aims to acknowledge the demographic characteristics of affected patients and evaluate prevention strategies.

Methods: A retrospective study of pneumococcal disease in patients with suspected CAP at a local hospital is presented, from November 2017 to November 2019.

Results: Three hundred and seventy patients were diagnosed with pneumococcal infection. Most frequent diagnostic methods used were urinary antigen testing (UAT) (87.30%), sputum (6.49%) and blood cultures (3.24%). Only 11.41% UAT resulted positive. Pulmonary comorbidities were found in 43.65% of patients – predominantly chronic obstructive pulmonary disease (24.76%) – and 4.33% presented any kind of immunosuppression (mainly due to malignant disease). Most cases were admitted to general wards

(83.28%), whereas 6.32% to the ICU. Overall mortality of the sample was 13.31%. Pneumococcal vaccination was present in 56.97% of the overall sample; whereas in patients 65 y.o or older it increased to 76.58%. Hospital admission was more frequent in vaccinated patients (OR 2.86, IC95% 1.55-5.36, p=0.001); however, ICU admission was lower (OR 0.36, IC95% 0.14-0.99, p=0.049) and with no differences regarding overall mortality (OR 1.36, IC95% 0.66-2.81, p=0.404). Nevertheless, such relation could correspond to a selection bias as vaccinated patients are, precisely, those with more comorbidities: any lung disease (OR 1.67, IC95% 1.01-2.75, p=0.044) or COPD (OR 2.63, IC95% 1.40-4.95, p <0.01).

Conclusions: The most frequent diagnostic tool is UAT, despite its low rentability. Patients affected with pneumococcal disease have many comorbidities, although prevention strategies are not fully applied.

PV594 / #1418

SYSTEMIC LUPUS ERYTHEMATOUS AND INFECTION

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Background and Aims: Systemic lupus erythematosus (SLE) is an autoimmune disease involving multiple systems. Patients with SLE are more susceptible to infections due to the disorder of their immune system combined to effects of the immunosuppressive therapy. The aim of our study was to describe infectious complications which took place at different points of the evolution of SLE.

Methods: A retrospective study was conducted from 2008 to 2019, in the internal medicine department, including patients with SLE that developed an infection.

Results: A total number of 28 SLE patients had developed one infection or more. All patients were females. Their mean age was 35 years [16-84 years]. The mean time between the onset of the infectious episode and the diagnosis of SLE was 13 months. Infectious episodes inaugurated the disease in 3 cases (10.7%). Bacterial infections were the most frequently observed (n=13; 46.4%). They were dominated by urinary tract infections (n=7; 25%). Three patients (10.7%) developed infectious pneumonia and two (7%) developed dental abscesses. Three patients (10.7%) were diagnosed with lymph node tuberculosis and one with boutonuse fever. Mycosic infections were found in 4 cases (14.2%): 3 cases of oral candidiasis and 1 case of esophageal candidiasis. Viral infections were noted in 8 patients (28.5%), dominated by HSV (n = 4; 14.2%) and CMV (n = 3; 10.7%). The evolution was favorable in all cases.

Conclusions: Infections are frequent during SLE evolution. Their clinical manifestations can be confused with lupus flares. That is why infections must be systematically researched during the course of SLE.

PV595 / #1439

CLINICAL CHARACTERIZATION OF CAMPYLOBACTER ENTERITIS - A 10-YEAR RETROSPECTIVE STUDY IN A PORTUGUESE HOSPITAL

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Background and Aims: *Campylobacter* spp. infection, mostly *Campylobacter jejuni*, is considered the most frequent cause of acute gastroenteritis in adults in industrialized countries. The incidence of this infection has exceeded *Salmonella* and *Shigella*'s and continues to grow across Europe. The purpose of this study was to analyze the clinical features of adult patients with *Campylobacter enteritis*.

Methods: As a retrospective study, we reviewed the files of all adult patients diagnosed with *Campylobacter enteritis* at our hospital between December 2010 and December 2020.

Results: A total of 37 patients were diagnosed with *Campylobacter enteritis*. The mean age was 64.9 ± 19.9 years. We observed a similar distribution between male (51%) and female (49%) patients. Most of the *Campylobacter* stool cultures were requested at the emergency department (70%) and 22% at the internal medicine (IM) ward. *Campylobacter jejuni* was the most frequently found (86%) species. Regarding symptoms, acute diarrhea was found in 30 patients (81%), abdominal pain in 12 (32%) and fever in 10 (27%). Antibiotic therapy was initiated in 29 patients mainly with fluoroquinolones (72%), in which we found a longer hospital stay (12.3 ± 3.5 days) when comparing with patients who only had supportive therapy (7.3 ± 4.7 days). Acute renal injury was the most frequent complication (66%).

Conclusions: The vast majority of the *Campylobacter enteritis* cases were suspected in the emergency department and *Campylobacter jejuni* was the most frequently found species. Although most infections are self-limited, a course of empirical antibiotic therapy was initiated in most of the patients. Dehydration related complications were frequent.

PV596 / #1456

SEVERE LEPTOSPIRAL INFECTION IN SOUTHERN ISRAEL

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Case Description: A 55 year-old man from semi-arid Southern Israel is admitted for acute-fulminant hepatitis. Following a comprehensive workup, the surprising diagnosis of leptospirosis, virtually non-existent in Southern Israel, is established. He is

treated accordingly and fully recovers. The exact source of this rare infection remains unknown.

Clinical Hypothesis: The initial differential diagnosis included alcoholic hepatitis combined with paracetamol induced hepatitis (owing to a concomitant use prior to admission) and acute viral hepatitis.

Diagnostic Pathways: Serologies for viral hepatitis (HBV, HCV, HEV, EBV, CMV, HIV) and blood cultures were obtained. An abdominal computed tomography was conducted. A panel of autoimmune hepatitis and other rheumatic disorders was obtained. Finally, leptospiral serologies were obtained.

Conclusion and Discussion: We present case of life-threatening hepatitis in a 55-year-old man. After other, more common reasons were ruled out, we found the culprit was leptospirosis, despite absence of any known risk factors. We still do not know how the patient described here contracted leptospirosis, as this infectin is extremely uncommon in Southern Israel, and the patient did not report any possible exposure. Possible sources might be still water at his city, such as floods resulting from a leakage in the water supply of sewers. Climate change and urban sprawl might change the endemic areas of some pathogens, and requires broadening the differential diagnosis in future cases.

PV597 / #1461

OPPORTUNITIES FOR INTERVENTION ON AMBULATORY QUINOLONE PRESCRIPTION

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Background and Aims: Antimicrobial stewardship programmes (AMSP) seldom have focused on ambulatory antimicrobial prescribing. Our AMSP focuses primarily on hospital antimicrobial prescribing, but as we aim to start intervention on the ambulatory setting, we sought opportunities for intervention on ambulatory quinolone prescription.

Methods: We selected the prescriptions made by urologists during 2018 for analysis, and manually checked them for adequacy.

Results: A total 237 prescriptions were analysed. When antimicrobial therapy was prescribed (136 prescriptions), 18.4% had no reported diagnosis and 31.6% had no reported symptoms. Most patients did not have any urinalysis or culture at all; among those who had, 27.7% had a urinalysis not suggestive of urinary tract infection and 67.4% had a positive urine culture, 83.9% of which had a suitable oral alternative as per susceptibility testing. Antimicrobial therapy was not indicated in 13.9% of cases; when it was, quinolones were considered inadequate in 71.4% of cases, especially when prulifloxacin was prescribed (83.3%)

and when the diagnosis was not prostatitis or epididymo-orchitis (87.2%). Incorrect duration was found in 51.1% of cases. Forty-six prescriptions were made for prophylaxis, mostly for prostate biopsy. All of these were considered inadequate.

Conclusions: We found a high prevalence of inadequate ambulatory quinolone prescriptions in Urology. Many followed incomplete recordings, faulty laboratory use, or inattention to alternatives. During prescription, we found frequently inadequate treatment duration and poor quinolone choice. As for antimicrobial prophylaxis, quinolone prescribing is considered inadequate by default in our hospital according to our internal protocol. These prescribing errors could serve as a starting point for future interventions.

PV598 / #1464

CLINICAL CHARACTERISTICS AND ETIOLOGIES OF PROLONGED FEVER

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Background and Aims: Prolonged Fever (PF) is a common reason for hospitalization and remains a diagnostic challenge for the internist. The aim of our study was to describe the clinical characteristics and etiologies of prolonged fever of unknown origin.

Methods: A retrospective study was conducted in the Internal Medicine Department from 2009 to 2020, including all cases of PF defined by a fever $>38.3^{\circ}\text{C}$, lasting >2 weeks, with no established diagnosis after 3 days of hospitalization or 2 outpatient consultations.

Results: Twenty patients were included: 14 women and 6 men. Their mean age was 44 years [15-80]. The average duration of fever progression before hospitalization was 5 weeks [2-12]. Initial examination revealed: general signs (n=12), arthralgia (n=10), headache (n=4), myalgia (n=3), skin signs (n=7), lymphadenopathy (n=6), splenomegaly (n=5) and/or hepatomegaly (n=3). Etiological investigations revealed an infection in 50% of the cases dominated by bacterial infections including infectious endocarditis (n=2), tuberculosis (n=2), rickettsiosis (n=2), BGN septicaemia and dental granuloma each in one case. CMV infection was noted in 2 cases and visceral leishmaniasis was diagnosed in one case. Inflammatory origin concerned 9 patients: Still's disease (5 cases), systemic lupus erythematosus (1 case), mixed connectivitis (1 case), rhizomelic pseudo-polyarthritits (1 case). Neoplastic origin was represented by a case of lymphoma. One case of idiopathic macrophage activation syndrome (MAS) was noted. Secondary MAS was observed in 8 cases. Evolution was favorable in 17 cases (85%).

Conclusions: Every PF requires a careful clinical approach. The diagnosis of MAS should be considered. Early and appropriate management improves the prognosis.

PV599 / #1474

WHEN NOT AT ALL IT SEEMS - INAUGURAL DIAGNOSIS OF HIV WITH OPPORTUNISTIC INFECTION

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Background and Aims: Infection by the *Human Immunodeficiency Virus* (HIV) may present with non-specific symptoms that, without a high degree of suspicion, the diagnosis may not be considered. *Pneumocystis jirovecii* (PJ) pneumonia remains one of the main opportunistic infections in patients with HIV and low CD4 count, especially if it is less than 200.

Methods: A 50-year-old man, with history of pulmonary emphysema and smoking, went to the Assistant Physician for anorexia, weight loss, odynophagia and dysphagia for solids with 5 months of evolution. Computed Tomography (CT) revealed suspicion of primary atypia of the pancreas with hepatic metastasis, having been referred for consultation with oncology. In that consultation, he was admitted for respiratory infection with hypoxemia. From the research carried out, HIV positive stood out with opportunistic infection by PJ, then transferred to the hospital of residence area

Results: He presented with cachexia, dyspnoic, but vigilant and oriented. Analytically with leukopenia, lymphopenia and rise in CRP. Complied with targeted therapy with improvement of inflammatory parameters, however maintaining the need for supplemental oxygen therapy in growing. He had a viral load of 889,000 and lymphocyte populations with 9 cells/microL CD4, having started empirical antiretroviral therapy and tested for resistance to antiretrovirals. Due to a worsening of the respiratory condition, a CT was performed, which revealed areas of consolidation bilaterally, starting with piperacillin / tazobactam and ciprofloxacin due to suspected bacterial overinfection. Due to poor response of the patient, he died

Conclusions: This case demonstrates the aggressiveness of HIV and opportunistic infections without antiretroviral therapy

PV600 / #1476

CHLAMYDIA TRACHOMATIS INDUCED REACTIVE ARTHRITIS IN A YOUNG MALE: A CASE REPORT

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Case Description: A 20-year-old caucasian male presented to the emergency department with a month history of arthralgias of inflammatory pattern. He started complaining of back pain and was medicated with NSAIDs. He felt better but after a week bilateral

gonalgia, joint swelling and stiffening appeared. He consulted his physician and performed a magnetic resonance of the knees that showed articular effusion and edema induced lesions of the surrounding tissues. He had no accompanying symptoms (LUTS, urethral discharge, odynophagia, conjunctivitis, constitutional syndrome, mucocutaneous lesions, fever, gastrointestinal or respiratory manifestations). He was an active smoker and had sexual risk behavior. His past medical history was unremarkable.

Clinical Hypothesis: A diagnosis of spondyloarthritis was considered - reactive arthritis versus peripheral spondyloarthritis.

Diagnostic Pathways: Workup study revealed mild anemia, elevation of inflammatory markers and sterile leukocyturia. Urine screening was positive for *Chlamydia trachomatis* and negative for *Neisseria gonorrhoeae*. Serologies for HIV, hepatitis B and C and VDRL were negative. A thorough screening for autoimmune disease was negative, except for a positive HLA-B27. Arthrocentesis showed an inflammatory and sterile synovial fluid. Radiographic study of sacroiliac joints and lumbosacral spine were normal.

Conclusion and Discussion: The diagnosis of reactive arthritis to *C. trachomatis* infection was made. Reactive arthritis can occur following a sexual transmitted infection being *C. trachomatis* the most common inciting pathogen. The prevalence of HLA-B27 is increased in patients with spondyloarthritis, including reactive arthritis. The patient was treated with azithromycin and keeps on follow-up. This case highlights the need to include *C. trachomatis* infection in the differential diagnosis of acute or chronic arthritis among sexually active individuals.

PV601 / #1490

ANOTHER ENDOCARDITIS AGENT, RARE BUT SERIOUS - STREPTOCOCCUS PASTEURIANUS

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Case Description: Endocarditis is one of the most challenging diagnoses in Internal Medicine. In the case that follows, combined with this challenge, particular findings arise, namely an unusual etiological agent. We present the case of a 71-year-old woman, history of severe aortic stenosis corrected 1,5 years ago, rheumatoid arthritis (with positive rheumatoid factor) and bicytopenia under study (thrombocytopenia of probable chronic immune etiology with >9 years, under corticotherapy and eltrombopag and recently anemia). Asthenia and general malaise, using health care several times.

Clinical Hypothesis: Analytically, sustained elevation of inflammatory parameters and active urinary sediment, the recurrent presumption of urinary tract infection is made by following several courses of antibiotics. Isolation of *Streptococcus pasteurianus* in blood culture, not valued. About 3 months

later she returns to the emergency department. On objective examination, a description of pallor and dehydration, hypotension, oropharyngeal petechiae, grade II/VI systolic aortic murmur, inspiratory crackles on 1/3 bilaterally and moderate edema up to the knees. Analytically leukocytosis 14.97×10^9 and C reactive protein 310.7 mg/L.

Diagnostic Pathways: Empirically starts piperacillin/tazobactam and is hospitalized for study. Isolation at 24h of *Streptococcus pasteurianus* in blood cultures, extending the spectrum to ceftriaxone, vancomycin and gentamicin. Documented splenic infarctions and transthoracic echocardiography suggesting a probable endocarditis, which is confirmed with transesophageal echocardiography (marked signs of infection, with extensive vegetation mass 24x5 mm, multiseptate periprosthetic abscess). She underwent surgical intervention with the exclusion of perivalvular abscess and replacement of aortic prosthesis.

Conclusion and Discussion: Thus, there is an unusual agent of endocarditis to condition serious infection.

PV602 / #1510

URINARY CATHETER IN AN INTERNAL MEDICINE INFIRMARY: AN ANALYSIS ON THE CRITERIA AND COMPLICATIONS

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Background and Aims: Urinary tract infection is the most common hospital-care associated infection (30-40%), while the urinary catheter is an important entryway for pathogens. Urinary catheter (UC) associated urinary tract infections (UCAUTI) contribute in a great way to hospital spending, prolonged hospital-stay and antibiotics use. We pretend to characterize the population of patients with an UC in an infirmary of Internal Medicine.

Methods: Descriptive study of population characterization, selecting the patients carrying an UC on admission and those that needed catheterization while in-hospital, for a period of 6 months.

Results: 67 patients were selected, 57 were female, 49 were older than 80 years old. In 58% of the patients, catheterization occurred in the ED. 56% with objective to monitor urinary output, 18% due to urinary retention. There were 15 cases of UCaUTI and 1 case of bacteriemia with an urinary starting point. In this group of patients, we verified a total of 342 days of UC, with 23 days without complying with UC criteria. 14 positive urine cultures. *Escherichia coli* (n=6) (1 ESBL+), *Klebsiella pneumoniae* (n=5) (1 ESBL+), *Proteus mirabilis* (n=2), *Pseudomonas aeruginosa* (n=1). 3 of the 13 deaths verified in the selected population were due to UCaUTI.

Conclusions: The ED is the place where, in most cases, catheterization starts, so it may be necessary to create protocols for urinary catheterization in the emergency setting. We believe it is important to describe in clinical diary the motive for catheterization, so that it is not forgotten and can be removed as soon as possible.

PV603 / #1515

CHARACTERISTICS OF ADULT PATIENTS ADMITTED TO INTERNAL MEDICINE WITH INFLUENZA VIRUS INFECTION: MONOCENTRIC RETROSPECTIVE ANALYSIS OF CLINICAL-DEMOGRAPHIC VARIABLES AND PROGNOSIS

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Background and Aims: The study analyses the characteristics of patients with laboratory-confirmed influenza and hospitalised in Internal Medicine. It assesses the prognosis with regard to intra-hospital mortality and/or transfer to ICU, identifying possible predictive elements.

Methods: Data analysis was carried out on 79 patients who tested positive for naso-pharyngeal swabs for influenza viruses during the 2018-2019 influenza season at the Internal Medicine Department of "Santa Croce e Carle di Cuneo".

Results: In all cases the isolated virus was Influenza A. The most frequent comorbidities found were neurological diseases (40.5%), diabetes (25.3%) and heart failure (17.7%); the most frequent symptoms were fever (84.8%), cough (72.2%), dyspnea (55.7%), asthenia (20.2%) and confusion (16.5%). Intra-hospital mortality in the sample was 6.3%, while 7.6% of patients requested a transfer to an ICU. The prevalent complications were respiratory failure (54.4%), pneumonia (39.2%), cardiovascular complications (26.6%), exacerbation of heart failure (15.2%) and pleural effusion (12.7%). 78% of the population in our study were given antibiotic therapy, 34.2% systemic glucocorticoids; 92.4% of patients were treated with oseltamivir.

Conclusions: A plausible overtreatment of antibiotic drugs and systemic glucocorticoids emerged. Almost all patients were treated with oseltamivir, whose use was associated with a favorable clinical course, although not in statistically significant terms. A close link between infectious and cardiovascular diseases was observed: patients with heart failure or those who developed any cardiovascular complications had a higher risk of adverse outcome. In addition, the presence of pleural effusion by chest X-ray was found to be a negative prognostic predictor, although not in statistically significant terms.

PV605 / #1517

A RARE CASE OF SEVERE MOLLUSCUM CONTAGIOSUM IMMUNE RECONSTITUTION INFLAMMATORY SYNDROME

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Case Description: 57-year-old HIV-positive male, with a CD4 count of 304 cells/mm³ and a suppressed viral load, was referred to our institution with an extensive facial rash which had begun as two small nodular skin lesions 8 months previously. He presented to the hospital 5 months after commencing antiretroviral therapy (ART), complaining that the rash had markedly worsened over the past 3 months. He had no previous history of opportunistic infections.

Clinical Hypothesis: Differential diagnoses which were considered for this erythematous, umbilicated and widespread nodular dermatosis included *Molluscum contagiosum*, oral human Papilloma virus, and cutaneous cryptococcosis.

Diagnostic pathways: A skin biopsy was performed which showed large cytoplasmic eosinophilic inclusion bodies (Handerson-Paterson bodies), confirming the diagnosis of *Molluscum contagiosum*.

Conclusion and Discussion: Paradoxical immune reconstitution inflammatory syndrome (IRIS) in HIV-positive patients initiating ART results from restored immunity to specific antigens, causing a worsening of a pre-existing infection. Infection with *Molluscum contagiosum* is commonly noted in HIV-positive individuals but ART alone is usually sufficient to lead to resolution. Very few cases of molluscum contagiosum IRIS have been reported, and intractable IRIS despite immune reconstitution is extremely rare.

PV606 / #1520

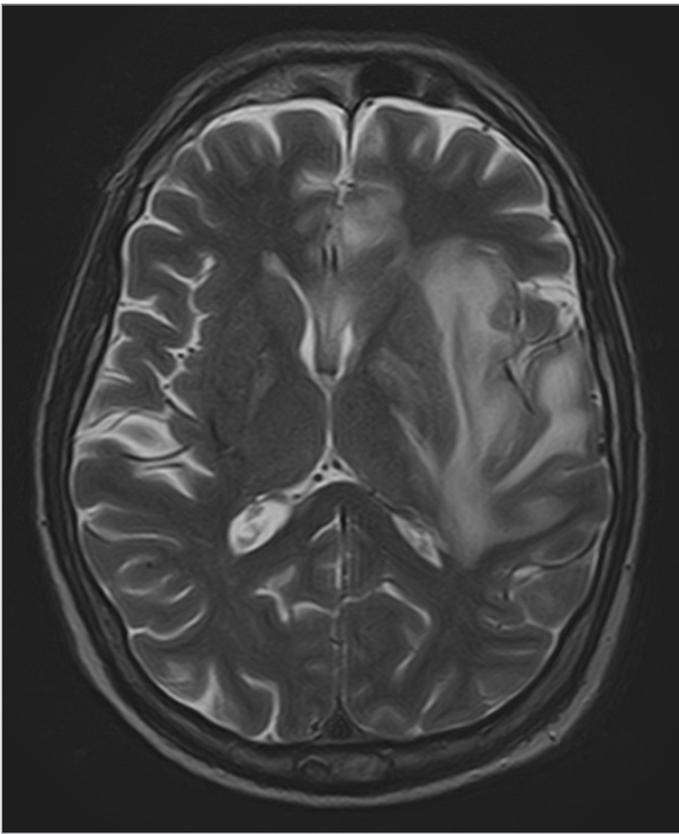
HERPES SIMPLEX VIRUS ENCEPHALITIS

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Background and Aims: Herpes simplex virus type 1 (HSV-1) encephalitis is the most common cause of fatal encephalitis worldwide and involves all age groups. Patients with this condition typically present with fever, headache, seizures, focal neurologic signs and impaired consciousness. The gold standard for establishing the diagnosis is the detection of HSV-1 DNA in



#1520 Figure

the cerebrospinal fluid (CSF) by polymerase chain reaction (PCR). MRI is the imaging study of choice to evaluate HSV-1 encephalitis and, in the majority of cases, is abnormal.

Methods: We report a case of a patient with HSV-1 encephalitis.

Results: 48-year-old male, with a past medical history of untreated hepatitis C and active alcoholism, presented to the hospital with headache, myalgias and an episode of a tonic-clonic seizure. Blood tests showed a slight lymphocytosis, brain computed tomography was normal and he was discharged on that day. Five days later, he was brought to the emergency department with fever, confusion, dysarthria and tonic-clonic seizures. HSV-1 DNA was detected on the CSF by PCR. Brain MRI showed an extensive lesion, in the left temporal, frontal and insular region, compatible with HSV-1 encephalitis. The patient initiated antiviral therapy, however with poor response and he eventually died one day later.

Conclusions: HSV-1 encephalitis is a devastating disease with significant morbidity and mortality, despite available antiviral therapy. This disease must be considered early on in any patient presenting with suggestive signs or symptoms since it is among the most treatable infectious etiologies of encephalitis.

PV607 / #1522

PARVOVIRUS B19 IN AN INTERNAL MEDICINE WARD – A CLINICAL CASE

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Case Description: The authors describe a case of a 66-year-old female patient with known history of controlled hypertension and dyslipidemia, presenting with fever, myalgia, arthralgia, erythematous peri-orbital maculopapular rash and asthenia, for the last 15 days. On physical examination, the patient was hemodynamically stable and afebrile, with mucocutaneous pallor, and there were no palpable adenopathies, tumefactions or organomegalies.

Clinical Hypothesis: The history and physical examination suggested an infectious, autoimmune or neoplastic disease.

Diagnostic Pathways: Analytically, she presented with normochromic and normocytic anemia (hemoglobin 9.7g/dL, mean corpuscular volume 81.0 fL and mean corpuscular hemoglobin concentration 32.3 g/dL) and elevated C-reactive protein (137,29 mg/L), having been admitted to an Internal Medicine ward for surveillance and study of the clinical case. of the entire analytical, cultural, imaging and endoscopic study, a positive IgM for parvovirus B19 was found, which led to the diagnosis. The patient showed good clinical evolution, prescribed with paracetamol, lysine acetylsalicylate and cetirizine for symptom control.

Conclusion and Discussion: Infection with *Parvovirus B19* is a frequent infection in childhood, with the acquisition of immunity to this virus. However, this infection may be acquired during adulthood, often asymptomatic in immunocompetent adults. When symptomatic might present with fever, skin rash, myalgia and arthralgia, with hematologic abnormalities, especially with the destruction of erythrocyte progenitor cells. Although it is an uncommon entity in patients admitted to an Internal Medicine ward, in the presence of fever with erythematous maculopapular rash and anemia, the hypothesis of infection by *Parvovirus B19* should be considered.

PV608 / #1552

CMV SECONDARY PTI

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Case Description: Female, 72 years old. History of hypothyroidism, osteoporosis and osteoarthritis. The patient resorted to the emergency department (ED) due to gingival bleeding and bruises (whole body) for over 2 months, aggravated with nose bleeding and asthenia.

Clinical Hypothesis: - Immune thrombocytopenic purpura - Myelodysplastic syndrome

Diagnostic Pathways: In the ED: lab work showed bicitopenia (anemia - hemoglobin 8.9 g/dL and severe thrombocytopenia - 2000/uL platelets). During admission: lab work presented positive antibodies for CMV and Hepatitis B; positive antiplatelet

antibodies GP IIb/IIIa and GP Ia/IIa and positive autoimmune screening (ANAS and connective tissue); the bone marrow biopsy showed dysplasia in all cell lines (myelocytic, monocytic and erythroid maturative delay), probably indicating myelodysplastic syndrome. The patient was treated with supportive blood and platelets transfusions, corticosteroids and human immunoglobulin (mild improvement). Steroid-induced diabetes was diagnosed. After being discharged, the patient was followed up in the Day Hospital, being treated with erythropoietin, aminocaproic acid, low corticosteroids' dose (due to advanced age and side effects) and supportive transfusions. The CMV's infection was treated with ganciclovir. The patient was referred to Hematology due to myelodysplastic syndrome's suspicion.

Conclusion and Discussion: After 5 months the patient no longer needed supportive transfusions (nowadays asymptomatic), indicating a possible CMV secondary bicitopenia. The myelodysplastic syndrome's suspicion could also be secondary to CMV infection or the ganciclovir treatment. The possible causal relation between CMV's infection, or its' treatment, and the bicitopenia, makes this an interesting case, as it highlights the intricacies of hematological diseases' differential diagnosis and treatment.

PV609 / #1559

A RARE AGENT OF INFECTIVE ENDOCARDITIS

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Case Description: We present the case of a 76-year-old male with arterial hypertension, dyslipidemia and diabetes mellitus type 2, insulinotreated, with micro- and macrovascular complications. Chronic kidney disease on hemodialysis by arteriovenous fistula. Moderate aortic stenosis. Atrial fibrillation without anticoagulation. Pacemaker carrier. Several hospitalizations in the past year for infectious complications, the last one because of cellulitis with *Pseudomonas aeruginosa* bacteremia, without evidence of endocarditis on echocardiogram, treated with effective antibiotic therapy for 21 days. He was evaluated in the emergency department 5 days after discharge, with respiratory symptoms, hypoxemia and fever.

Clinical Hypothesis: The most probable diagnosis is of infectious etiology (namely pneumonia).

Diagnostic Pathways: Chest radiograph had signs of congestion. It was started empiric antibiotic therapy for nosocomial pneumonia. *Pseudomonas aeruginosa* was isolated on blood cultures. A transesophageal echocardiogram was performed, which revealed signs of infective endocarditis of the aortic valve, with severe aortic regurgitation and mild left ventricular dysfunction. Surgical

treatment was refused because of the high surgical risk. He was treated with directed antibiotic therapy for 6 weeks, with clinical improvement. Even so, the patient died soon after discharge.

Conclusion and Discussion: We present the case of an infective endocarditis of the native aortic valve by *Pseudomonas aeruginosa*, an atypical agent. Its treatment is based on effective antibiotic therapy (usually 6 weeks) with cardiac surgery when indicated. In this case, severe aortic regurgitation and heart failure are both indications for early valvular surgery. This patient had a poor prognosis, since surgery was not performed.

PV610 / #1562

INVASIVE PNEUMOCOCCAL DISEASE MANIFESTING AS PNEUMONIA AND MYOPERICARDITIS

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Case Description: 21-year-old patient, past history of smoking and alcohol abuse, presenting to the emergency room with cough and fever from 6 days before, progressively decreased level of consciousness and aggravated respiratory difficulty. His sister had been diagnosed the day before with Influenza B infection. At admission he was barely responsive, febrile, with clear signs of respiratory failure and severe hypoxia, sinus tachycardia, hypotension and hyperlactaemia. Chest x-ray showed bilateral lung infiltrates. He was intubated, circulatory support was initiated and he was admitted to the intensive care unit. A point-of-care echocardiogram showed a mild pericardial effusion without hemodynamic compromise. He was started on ceftriaxone, azithromycin and oseltamivir empirically.

Clinical Hypothesis: Septic shock in the context of viral or bacterial pulmonary infection.

Diagnostic Pathways: Blood analysis revealed severe leucopenia, C-reactive protein 31 mg/dL and procalcitonin 61 ng/mL. High-sensitivity cardiac troponin I rose to 704 pg/mL. *Streptococcus pneumoniae* was identified in blood cultures, nasopharyngeal secretions and endotracheal aspirate. Influenza virus was not detected on antigen and polymerase chain reaction tests. HIV test was negative.

Conclusion and Discussion: Diagnosis of Invasive Pneumococcal Disease (IPD) was made based on bacteremia and presumed pneumococcal myopericarditis, this in particular prompting continuation of ceftriaxone for 28 days. The patient responded well to antibiotic therapy. A follow-up echocardiogram at the end of therapy showed no pericardial effusion and normal cardiac function. As shown here, IPD may be severe if not timely identified and treated. Complications such as pericardial effusion can ensue, which aggravates prognosis and requires prolonged treatment.

PV611 / #1576

ATYPICAL AND EXTENSIVE HERPES ZOSTER AS A MANIFESTATION OF HIV INFECTION

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Case Description: 60-year-old female patient presenting to the emergency department with a 4-day history of painful and nonpruritic vesicular and erythematous rash, progressively involving the right shoulder, arm, forearm and hand, with increased pain. The patient reported having no other cutaneous lesions or any other symptoms. She had a past medical history of herpes zoster more than three years before, on the same location. She denied having high risk sexual behaviors, blood transfusions or illicit drug consumption. Physical exam revealed an extensive vesicular and erythematous rash, from the dorsal surface of the shoulder to the dorsal surface of hand and also involving the thenar eminence. There were no other remarkable findings on examination.

Clinical Hypothesis: *Herpes Zoster.* We suspected of immunodeficiency based on the extent of dermatome involvement, past history of zoster, relatively young age and no other cause of immune dysfunction.

Diagnostic Pathways: General blood analysis showed mild lymphopenia with $1.25 \times 10^9/L$. An antibody/antigen HIV test was positive for HIV 1. Posterior testing revealed a viral load of 105,923 copies/mL, CD4+ count of 329 cells/microL (24%), CD4+/CD8+ ratio of 0.41 and HLA-B5701 negative. Other sexual transmitted infections were excluded.

Conclusion and Discussion: The patient was started on acyclovir. She was admitted to the infectious disease ward, where she was prescribed with highly active antiretroviral therapy. There was a good response to treatment and she was successfully discharged. This case shows how atypical herpes zoster infection can be an early manifestation of immunodeficiency, prompting clinicians to exclude HIV infection.

PV612 / #1604

THE EASY WAY TO WEIL DISEASE DIAGNOSIS – CLINICAL SUSPICION

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Background and Aims: A 64-year-old woman with asthenia and myalgias of one week evolution. She was jaundiced, conjunctival hemorrhage, hematoma's and petechiae, hepatomegaly with hepatalgia. Thrombocytopenic (30,000 platelets/L), prothrombin 56%, non-oliguric renal injury (creatinine 5.9 mg/dL), AST 123 IU/L, ALT 124 IU/L, AP 295 IU/L, GGT 173 IU/L, hyperbilirubinemia (7.8 g/dL, 6.37 direct) and high CRP (6 mg/dL). Without fever,

abdominal pain, anemia. No history of alcohol, drug abuse, liver toxins, exposure to jaundiced patient.

Methods: Diagnostic hypotheses: acute hepatocellular disease, viral hepatitis, drugs (paracetamol, halothane, chlorpromazine), other infectious like leptospirosis, toxins and autoimmune. The cholestatic, intra or extrahepatic and ischemic injury could be the cause. The presence of several hemorrhages is very suspicious for a leptospirosis.

Results: Abdominal ultrasound (AU) will evaluate obstructive causes and viral serologic markers (A, B, C, E, CMV and EBV) could exclude the viral hepatitis. Conjunctival hemorrhage favors a leptospirosis, for which a lack of diagnostic tools, only an imperfect and late serology, 5 to 7 days, will confirm the diagnosis. There are no autoimmune features but the Auto Ab could help eliminate this hypothesis. After AU and normal cardiac function, the patient was started on ceftriaxone and doxycycline. A positive IgM antigen for leptospirosis was received 7 days after.

Conclusions: The association of jaundice and renal failure without fever is always a difficult problem. The normal biliary tract and several signs of clinical coagulation abnormalities is a strong suggestion for *Leptospira* treatment. The Weil's Syndrome is the most dangerous type, once related with mortality.

PV613 / #1610

ALL-AROUND TUBERCULOSIS - JUST A HUNCH?

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Background and Aims: According to World Health Organization, Tuberculosis is still one of top 10 causes of death and the leading cause from a single infectious agent.

Methods: The authors present the case of a 32 years old man, natural from Brazil, with progressive worsening nausea, vomiting, coluria and diarrhea, with no constitutional symptoms, including fever. Regarding family history, his mother was receiving treatment for pulmonary tuberculosis. At examination, he had abdominal distention, lower limb edema and jaundice.

Results: Laboratory findings included pronounced liver enzymes elevation with cytocholestatic pattern. From additional study, a thickened pericardial membrane and large pericardial effusion with cardiac tamponade was confirmed. The CT scan also revealed pleural effusion, pulmonary hilar and mediastinic adenopathies and a space occupying lesion at upper right lobe. A pericardiocentesis was performed with improvement of congestive heart failure and acute hepatitis. IGRA was positive, however other mycobacteriological research tests, including PCR for *Mycobacterium tuberculosis* in pericardial fluid and BAAR on sputum, were negative. Despite this, due to high degree of clinical suspicion, disseminated tuberculosis with pericardial involvement was assumed and prednisolone and antibacillary therapy (isoniazid, rifampicin, pyrazinamide, ethambutol) was started. A

new CT scan showed cavitation of previously mentioned apical lesion, corroborating our diagnosis and confirming pulmonary involvement. Without further clinical worsen, the patient was discharged to continue antibacillary therapy at home, with no recurrence of symptoms.

Conclusions: Globally, TB incidence is falling and tuberculous pericarditis is and infrequent form of tuberculosis. However it should be considered in the presence of high clinical suspicion and appropriate epidemiological context.

PV614 / #1645

CASE REPORT: PARASITOSIS IMITATING AN INFLAMMATORY SYSTEMATIC DISEASE

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Background and Aims: The differential diagnosis of fever is long and it is of great importance for the clinician to identify the source. Here we describe a rare case of fever of undetermined origin.

Methods: A 47-year-old woman, with unremarkable medical history, presented with a history of fever and diarrhea, lasting 1 week, followed by relapsing episodes of fever, dry cough, rash, arthralgias and myalgias. The patient had already completed a 6-day course of corticosteroids, antihistamine and antibiotics with significant amelioration of symptoms. After completing this medication, there was a second relapse of fever, rash, lips edema and dry cough. On admission, the patient was febrile, with mild face erythema, maculopapular rash on her back, and myalgias while the rest of physical examination was insignificant. Laboratory findings included leukocytosis with eosinophilia (1690/ μ l), increased levels of C-reactive protein, creatinine phosphokinase, aldolase, lactate dehydrogenase and aminotransferases.

Results: Extensive diagnostic work-up, including imaging studies, endoscopic exams and echocardiogram attributed to no significant findings. Due to persistent myalgias, an electromyogram followed by muscle biopsy were performed which revealed inflammatory myopathy of parasitic etiology with trichinosis.

Conclusions: The final diagnosis was trichinosis, a food-borne parasitic infection caused by nematodes of the genus *Trichinella*. In our case, the clinical manifestations were completely compatible with the two common stages of *Trichinella* pathogenesis (intestinal and muscle stage). The gradual onset of symptoms, raising suspicion of a systematic disease and the evaluation from different specialties provoked a significant delay in patient diagnosis and treatment, with no further complications.

PV616 / #1725

GONOCOCCAL ARTHRITIS: A CASE SERIES OF 58 PATIENTS IN LA RÉUNION ISLAND

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Background and Aims: In the context of re-emerging sexually transmitted infections (STI), we studied gonococcal arthritis, the most frequent form of disseminated infections due to *Neisseria gonorrhoeae* (NG).

Methods: We conducted a retrospective study of all confirmed (PCR or culture) cases of joint damage due to NG, in the 4 public hospitals of Réunion island over the 2008-2020 period.

Results: Fifty-eight patients were included, with a sex ratio of 1.07 and a median age of 42 [25-53] years. There was no HIV-infected patient. Thirty-six (62%) had heterosexual orientation and 3 (5%) homosexual. Unsafe sex was reported before symptoms onset in 45/50 (90%) cases, with a median delay of 15 [8-30] days. Clinical presentation was monoarthritis in 17 patients, oligoarthritis in 33 and polyarthritis in 8, with a median number of 2 [1-3] affected joints. Twenty-eight (48%) had tenosynovitis. Genital symptoms were present in only 9 cases, whereas 50% presented extra-genital symptoms. Median CRP level was 133 mg/L. NG was isolated from joint fluid in 39 patients (16 positive culture, 13 positive PCR, and 10 with both techniques), from blood cultures in 7 patients, from urinary or genital swabs in 15 and 16 patients respectively. Among 31 available strains, 20 were resistant to quinolones and none to oral or IV cephalosporins. 27 (47%) were diagnosed with concomitant STI. All patients received antimicrobial therapy, mainly IV cephalosporins (97%) and 11 had joint surgery.

Conclusions: In our series, gonococcal arthritis affects mainly young heterosexual non-HIV adults without comorbidities. Resistance to quinolones was frequent.

PV617 / #1726

LEPTOSPIROSIS, A LITTLE DIAGNOSED DISEASE: DESCRIPTIVE STUDY OF DIAGNOSTIC CASES IN A THIRD-LEVEL HOSPITAL

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Background and Aims: Leptospirosis is a zoonotic disease (especially related to rodents) very prevalent in tropical areas but less frequent in temperate regions such as Spain, although the actual figures are unknown. Furthermore, it is an underdiagnosed pathology because it requires a high index of suspicion for the diagnosis (nonspecific and often mild clinical symptoms). It is potentially deadly disease.

Methods: We carried out a descriptive prospective study of the cases diagnosed in our hospital since 2000, with a total of 10 documented cases; mean age 39.7(SD 22.3). Origin of the

Clinical characteristic	Analytical characteristic
Fever	90 % (9)
Asthenia	100 % (10)
Arthralgias	80 % (8)
Myalgia	100% (10)
Osteoarthritis	30% (3)
Headache	40 % (4)
Nausea/ vomiting	40 % (4)
Abdominal pain	50 % (5)
Hepatitis	90 % (9)
Hepatomegaly	40 % (4)
Splenomegaly	50% (5)
Lymphadenopathy	30% (3)
Skin rash	30% (3)
Petechiae	40% (4)
Conjunctival injection	90 % (9)
Weightloss	30% (3)
Chestpain	0 % (0)
Cough	50 % (5)
Renal insufficiency	90 % (9)
Weil syndrome	80 % (8)
Neurological disorders	30% (3)
Thrombopenia	80% (8)
Leukopenia	0 % (0)
Leukocytosis	20% (2)
Anemia	60% (6)
Pancytopenia	0 % (0)
Liver enzymes alteration	100% (10)
CRP elevation	100% (10)
VSG elevation	50% (5)

#1726 Table A

		Unrealized	Realized	Negative realized	Positive realized
Culture	Blood culture	10 % (1)	90 % (9)	70 % (7)	20 % (2)
	Urine culture	70 % (7)	30 % (3)	30 % (3)	0% (0)
	LCR culture	90 % (9)	10% (1)	10% (1)	0% (0)
Serology		0% (0)	100 % (10)	30 % (3)	70 % (7) IgG/IgM + 10 % (1) IgG - / IgM + 60 % (6)
PCR		80 % (8)	20 % (2)	0% (0)	20 % (2)

#1726 Table B: Microbiologica/ diagnostic method.

Antibiotic treatment	Doxiciclina	60 % (6)
	Penicilina G	10 % (1)
	Ceftriaxona	20 % (2)
	Tazocel	10 % (1)
Jarisch-Herxheimer reaction		10 % (1)
Antibiotic treatment duration		8.3 (DE 1.5)
Hospital stay duration		12.6 (DE 4)
ICU admission		60 % (6)
Death		0% (0)

#1726 Table C: Treatment and evolution.

infection was known in 4 cases: 3 from food and 1 from contact with infected animals.

Results: The clinical and laboratory characteristics are shown in Table #1726a.

Most of the symptoms and laboratory abnormalities are higher in our series, probably due to the severity of the cases. Diagnosis can be made in three possible ways: serology (the most common), blood, urine or CSF culture (although it is slow growing and not very sensitive) or PCR if it is available. In our hospital, as the bibliography describes, most of the cases were diagnosed by serology. Table #1276b.

Many of the cases are self-limited without treatment, but when a patient is hospitalized, antibiotic treatment is recommended; Table #1276c describes the patterns of our cases and their evolution during admission.

There is risk of a Jarisch-Herxheimer reaction (approximately 21% of cases), which has only been described in one of our patients.

Conclusions: Leptospirosis is a poorly understood but potentially serious disease. It must always be suspected to be diagnosed. Serology and PCR are very useful. Antibiotic treatment is simple and effective.

PV618 / #1744

VENTRICULOPERITONEAL SHUNT INFECTIONS PRESENTING AS CASES OF FEVER OF UNKNOWN ORIGIN

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Background and Aims: Cerebrospinal diversion devices are essential in the management of hydrocephalus. Contamination of the devices is one of the most serious complications. Most cases of shunt infections develop within the first year of shunt placement. We describe two cases of ventriculoperitoneal (VP) shunt infection, presenting as fever of unknown origin more than 10 years after VP shunt placement.

Methods: *Case #1.* A 80-year-old female was referred to a tertiary hospital due to fever of unknown origin. The patient complained of fever over the last four weeks with episodic headache. Blood cultures were sterile, while no diagnosis was reached after extensive evaluation. A VP shunt was placed 15 years ago, following hydrocephalus due to ruptured brain aneurysm. A lumbar puncture revealed central nervous system (CNS) infection with *Pseudomonas aeruginosa* isolation from cerebrospinal fluid cultures. *Case #2.* A 67-year-old male admitted with a history of fever of 30 days' duration. Present history was unremarkable except for a VP shunt 17 years ago following hydrocephalus due to ruptured brain aneurysm. *Pseudomonas aeruginosa* was isolated from cerebrospinal fluid cultures.

Results: Both patients were successfully treated with neurosurgical replacement of the VP shunt along with extended antibiotic treatment, and had an uneventful recovery.

Conclusions: VP shunt infection should be considered in oligosymptomatic patients with fever of unknown origin, regardless of the time since VP placement.

PV619 / #1746

A RARE CASE OF HEPATIC ABSCESES BY DESULFOVIBRIO DESULFURICANS

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Case Description: We report a case of an 83 years old, diabetic, Indian woman who was admitted to the emergency department for general malaise, asthenia, and progressively more prostrated in the last three weeks. The patient had no other symptoms, such as fever.

Clinical Hypothesis: From the study, we highlight: Leukocytosis ($26,000 \times 10^9 / \mu\text{L}$) and increased CRP (16 mg/dL). In the ultrasound study, a liver abscess was identified and blood cultures were

positive for *Desulfovibrio desulfuricans*. From the epidemiological history, it was found that the patient had been in Portugal for over 30 years with access to drinking water and good hygiene conditions in her home. His diet was vegetarian Indian, but the food would be well cooked.

Diagnostic Pathways: The abscess was drained and the patient completed 36 days of antibiotic therapy with metronidazole. Unfortunately, the patient was infected with SARS-CoV2, having developed pneumonia and respiratory failure, and later on aspiration pneumonia that culminated in her death.

Conclusion and Discussion: Infection by *Desulfovibrio desulfuricans* is rare in humans and the pathogen can be found in soils, waters, and the stools of animals. The epidemiological link was not achieved.

PV620 / #1750

OUTPATIENT PARENTERAL ANTIMICROBIAL THERAPY (OPAT) AT HOSPITAL AT HOME (HAH) SERVICES FOR PATIENTS REFERRED FROM INTERNAL MEDICINE WARDS: A NATIONALWIDE MULTI-CENTER DESCRIPTIVE STUDY

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Background and Aims: Infectious diseases are common in patients from internal medicine wards. Treating these patients through OPAT could help relieve the pressure from overcrowded hospitals. However, little specific information is available on OPAT for these group of patients. We aimed to analyze the characteristics and OPAT outcome provided by HAH units in patients referred from internal medicine wards.

Methods: Retrospective multi-center study of patients >21 years old discharged on OPAT from internal medicine wards between July 2011 and December 2020 from the Spanish OPAT Registry.

Results: Among 12,865 OPAT episodes, 6,563 were transferred

from hospital wards and 2,661 (40,5% - 2,483 patients) from internal medicine ward. 55,5% were male, mean age 72 (15-101; SD 17.5); mean Charlson's index 2.55 (0-14; SD 2.19). Most common infections were urinary tract infections (33.6%), respiratory (32.2%) skin and soft tissue infections (9.8%), and intraabdominal (8.0%). Most frequent microbial isolates: *E. coli* 616 (37.6% ceftriaxone R); *P. aeruginosa* 235 (22.5% piperacillin-tazobactam R); *K. pneumonia* 144 (56.2% amoxicillin-clavulanate R); *S. aureus* 116 (26.7% methicillin R); *E. faecalis* 71 (8.4% ampicillin R). Antimicrobial more used: Ceftriaxone (26.7%); ertapenem (23.2%); piperacillin-tazobactam (16.1%); meropenem (4.1%); daptomycin (3.9%). Mean global (hospital plus OPAT) iv treatment length: 14.7 days (1-124; SD 10.3) and mean OPAT length 8.3 days (0-77; SD 6.9), representing 56.4% of the total iv treatment duration. 177 patients (6.6%) were readmitted before HaH ending.

Conclusions: OPAT based on hospital at home services is a feasible and efficient strategy for treating patients referred from internal medicine wards.

PV621 / #1757

EXTENSIVELY DRUG-RESISTANT TUBERCULOSIS, WHAT TO EXPECT IN THE FUTURE?

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Case Description: Male, 35 years, melanodermic, natural from Guinea-Bissau, resident in Portugal. No relevant medical history or usual medication. Admitted for a right cervical mass, fever, weight loss and anorexia in the previous 3 months.

Clinical Hypothesis: The *Human Immunodeficiency Virus* (HIV) infection, by lowering CD4 levels below critical values (<200/ μ L) makes individuals susceptible to opportunistic infections, like *M. tuberculosis*. HIV infection is one of the most important risk factor to tuberculosis, increasing the risk of reactivation or progression to active TB.

Diagnostic Pathways: Was diagnosed with HIV infection, stage 3 (viral load HIV-1 938616 c/mL, CD4 - 98 cel/ μ L), HIV nephropathy and tuberculous lymphadenitis (chronic granulomatous lymphadenitis in the histology and mycobacteria in direct exam). Patient begun ART, anti-TB drugs and prophylactic co-trimoxazole. In the 22nd day in the hospital was admitted to ICU due to respiratory failure. The bronchoalveolar lavage identified *Pneumocystis jirovecii*, was medicated with prednisolone and antibiotics with significative improvement, leaving the ICU in the 31st day. In the 72nd day the patient had suppressed viral load and a CD4 count of 67 cel/ μ L. Due to an altered mental state a lumbar puncture was performed in the 80th day, because CT scan did not show any pathologic signs. The cerebrospinal analysis identified

Cytomegalovirus and *M. tuberculosis*. Because it was an extensively drug-resistant tuberculosis was only begun ganciclovir until the laboratory revealed the drug susceptibility.

Conclusion and Discussion: HIV infection is a risk factor to develop drug-resistant TB, especially in high prevalence regions like Africa. The propagation of this forms of TB is a serious health danger.



AS10. KIDNEY AND URINARY TRACT DISEASES

PV622 / #20

LONG-TERM RENAL OUTCOMES IN PATIENTS WITH UNILATERAL ATROPHIC KIDNEY

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Background and Aims: Unilateral atrophic kidney in adults can be seen for various reasons. This study aims to determine renal survival in patients with unilateral atrophic kidney and to investigate the factors affecting survival.

Methods: We retrospectively analyzed the data of 199 patients with unilateral atrophic kidney and followed-up in our clinic between January 1994 and December 2019. Demographic data (sex, age at admission, follow-up period) and clinical characteristics (family history, presence of coexisting urinary anomalies, Tc-99m DMSA rates, and laboratory results) were obtained from medical database. Laboratory results in the first and last clinical visit of the patients and kidney sizes obtained by ultrasonography were compared. Chi-square test was used to compare categorical variables, and Wilcoxon test was used to compare means.

Results: Patients were followed for a mean 56,5±56,7 months after diagnosis. 114 patients (57,3%) were women. The mean age was 44,4±16,8 years. 103 patients (51,8%) had atrophic right kidney. The most common etiology was chronic pyelonephritis (17,1%). There were hypertension in 133 (66,8%) patients and diabetes mellitus in 25 (12,6%) patients. The mean Tc-99m-DMSA kidney scintigraphy results for the right and left atrophic kidneys were 14,7±10,6% and 15,6±12,1%, respectively. ESRD (eGFR≤15 ml/min/1,73 m²) developed in 17 (8,5%) patients, creatinine level doubled in 7 (3,5%) patients, ≥0,5 g/g proteinuria calculated by spot urine total protein/creatinine ratio developed in 12 (6,0%) patients during follow-up period.

Conclusions: Complications such as hypertension, proteinuria, ESRD are common in patients with unilateral atrophic kidney. These patients should be carefully monitored.

PV624 / #189

A CASE OF CIPROFLOXACIN-ASSOCIATED ACUTE INTERSTITIAL NEPHRITIS

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Background and Aims: Acute interstitial nephritis (AIN) is a condition characterized by an inflammatory infiltrate in the kidney interstitium, and is associated with functional decline. It is most often caused by drugs, but also by autoimmune diseases or infections.

Methods: 79 year-old admitted with subacute inflammatory diarrhea. At presentation, C-reactive protein of 12.50 mg/dL and creatinine 1.1 mg/dL. Complementary study started whilst assuming possible infectious etiology.

Results: *Clostridioides*, *Giardia* and parasitological and bacteriological stool cultures were negative. Colonoscopy with findings compatible with ulcerative colitis. This patient was started Ciprofloxacin at admission and Mesalazine on the eighth day, On the tenth day, acute kidney injury (Creatinine 5.1mg/dL) developed and granular casts compatible with AIN were found in urinalysis. Both drugs were stopped and corticosteroids were prescribed, with improvement. Later, rechallenge with mesalazine has been made, and, at the sixth month of treatment, there was no evidence of worsening of kidney function. This finding, and the initial timeline, are consistent with ciprofloxacin associated AIN.

Conclusions: Sometimes, finding the culprit drug in patients with AIN is complicated, especially in patients taking multiple medications. Timeline is key to its identification, and, in this case, although 5-aminosalicylates are more involved in this pathology, ciprofloxacin was the likely etiology.

PV625 / #298

RENAL VEIN THROMBOSIS COMPLICATING TUBERCULOSIS IN RENAL TRANSPLANT PATIENT: A CASE REPORT

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Background and Aims: Allograft renal vein thrombosis is a rare complication of kidney transplantation. Most cases occur in the first weeks after transplantation and they are most related

to donor, recipient, surgery, and immunosuppression, with mechanical factors. Allograft loss is the usual outcome. We report an unusual case of late renal vein thrombosis complicating Tuberculosis in renal transplant patient.

Methods: A 34-year-old man had undergone living related kidney transplantation in 2012. His maintenance immunosuppression included prednisone, Tacrolimus, and mycophenolate mofetil. At last follow-up in June 2020, his serum creatinine was at 14 mg/L. In June 2020, he was diagnosed with Tuberculous lymphadenitis. First line Anti Tubercular Therapy (ATT) was started and the patient was discharged. Three weeks later, he presented with right-sided abdominal pain over the kidney transplant. Routine investigations revealed acute renal failure. A progressive deterioration of allograft function was documented, and the patient became anuric within a few days. Hemodialysis was started. Doppler ultrasound examination of the abdomen revealed deep allograft venous thrombosis. Renal graft biopsy was performed revealing acute renal tubular necrosis with vascular congestion. A pro-thrombotic and auto-immune studies were normal and Polymerase Chain Reaction of cytomegalovirus was negative.

Results: The patient was put on low-molecular-weight heparin and 15 days later, acenocoumarol was started. He recovered diuresis, hemodialysis treatment was discontinued and his serum creatinine decreased. First line ATT was sustained with a good clinical response. Follow-up angio-magnetic resonance imaging revealed the persistence of thrombus with focal cortical necrosis.

Conclusions: Our case shows that venous thrombosis may complicate active tuberculosis. The particularity of our case is the unusual site of thrombosis and its presentation in transplant patient.

PV626 / #353

TWO CASES OF INFECTIOUS COLITIS COMPLICATING MULTIPLE MYELOMA

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Background and Aims: Multiple myeloma, although a rare disease, is the second most common hematologic malignancy. Infections represent a major threat to multiple myeloma patients, commonly affecting respiratory and urinary tract. Involvement of gastrointestinal tract has been rarely reported. We describe the case of two female patients admitted to our department for multiple myeloma with renal impairment, and who developed infectious colitis during hospitalization.

Methods: Our two patients had 63 and 57 years old respectively. In both cases, stage II multiple myeloma has been recently diagnosed and combination chemotherapy (velcade-prednisolone-thalidomide) was used for the treatment on admission. One week later, the first patient developed fever and a sub-occlusive syndrome while the second patient complained of nausea and bloody diarrhea with abdominal pain. Elevated CRP was noted in both cases.

Results: An abdominal computed tomography scan was performed in the first case showing diffuse edematous thickening of the colorectal wall, compatible with infectious colitis. Rectosigmoidoscopy revealed mucosal erythema with superficial erosions in both cases. Colonic biopsies showed acute infectious colitis with edema and neutrophil infiltration. No viral inclusion was noted. Stool culture isolated *Escherichia coli* in the second case. The two patients were treated with antibiotics including metronidazole and they both improved within a few days.

Conclusions: Evidence of coexistence of multiple myeloma and gastrointestinal tract involvement can be found in the literature and is thought to be a result of amyloid deposition. To our knowledge, there have been no previously reported cases of infectious colitis during myeloma. Such complication should be kept in mind and prompt diagnosis with appropriate anti-infective chemotherapy must be started in order to reduce the risk of mortality.

PV627 / #358

MINIMAL CHANGE NEPHROTIC SYNDROME REVEALING MUCOSA-ASSOCIATED LYMPHOID TISSUE (MALT) CONCOMITANT TO MIXED CONNECTIVE TISSUE DISEASE: A CASE REPORT

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Background and Aims: Non-Hodgkin lymphoma (NHL) is a well-known hematologic malignancy. MALT lymphomas are uncommon, accounting for 5% of all NHL. Involvement of the kidney is extremely rare, resulting in a direct effect of the malignancy, a complication of it, or the consequence or side effect of chemotherapy.

Methods: We describe the case of a 31-year-old woman with a history of rheumatoid arthritis, who presented with the clinical symptoms of impure nephrotic syndrome. The patient complained of vomiting, generalized weakness and xerophthalmia. Generalized oedema and posterior cervical nodes were both noted at clinical examination. Laboratory findings on admission revealed proteinuria, acute renal failure, anemia and lymphopenia.

Results: Ophthalmic exam showed a low tear film break-up time (TBUT). An auto-immune study including anti-nuclear antibodies (AAN), autoantibodies to extractable nuclear antigens (ENAs), anti-nucleosome antibodies and anti-Sm was positive. Anti-SSA and anti-SSB were both negative. Endoscopy with biopsy and extensive immuno-histochemical study of lymph nodes showed MALT lymphoma. Renal biopsy was performed revealing minimal change glomerulonephritis. The patient was put on chemotherapy (cyclophosphamide-doxorubicine-vincristine-prednisone). Clinical manifestations and laboratory parameters of both nephrotic syndrome and lymphoma resolved, and the renal function remained stable during follow-up.

Conclusions: The kidney may be involved in several different systemic diseases. Lymphoma may also occur as a manifestation

of a long during systemic disease. To the best of our knowledge, this is the first case that illustrates a rare association between non-Hodking lymphoma, minimal change glomerulonephritis and systemic disease.

PV631 / #576

WAYS TO IMPROVE THE MANAGEMENT OF PATIENTS WITH KIDNEY DISEASE AND DIABETES, TAKING INTO ACCOUNT THE ASSOCIATED PATHOLOGY

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Background and Aims: According to the current literature and clinical data, a personalized approach to the treatment of patients with type 2 diabetes and related pathology – diabetic kidney disease, chronic kidney disease (CKD), obesity and cardiovascular pathology – is promising and justified, however it needs further study. To develop a personalized approach to the diagnosis and treatment of patients with kidney disease and type 2 diabetes, taking into account the associated pathology.

Methods: Recent (past 2 years) clinical records of patients with type 2 diabetes and kidney diseases were analyzed, including the diagnosis of comorbidities (renal, cardiovascular pathology etc.). Data analysis was performed using standard programs.

Results: We analyzed the data of 86 patients, women 40 (46.6%), men 46 (53.4%), average age 58 ± 8.2 , all had comorbidities, including kidney disease 74.4%, diabetic kidney disease 44.2%, CKD 30.2%, metabolic disorders 46.2%, cardiovascular disease 52.3%, hypertension 48.8%, diseases of the respiratory system 6.2%, gastrointestinal tract 48.3%, other 24.5%. According to the results of the study, the most significant impact on the quality of life of patients and compensation of diabetes had timely diagnosis and control of kidney and cardiovascular system disorders.

Conclusions: Better understanding of aspects of early clinical diagnosis of kidney disease in patients with type 2 diabetes, in particular early screening using laboratory markers, will introduce more effective preventive and therapeutic approaches to the management of kidney disease and other complications and comorbidities of type 2 diabetes.

PV632 / #611

COMMUNITY ACQUIRED ACUTE KIDNEY INJURY (CA-AKI) ETIOLOGIES AND OUTCOMES: FINDINGS FROM A TERTIARY HEALTH CARE CENTRE

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Background and Aims: Acute kidney injury (AKI) is commonly encountered in community settings (CA-AKI) and contributes to morbidity, mortality, and increased resource utilization. Sepsis can be both an etiology and complication of AKI. This study aimed to study the sepsis as etiology and/or complication of CA-AKI and its outcome in relation to sepsis.

Methods: Patients with a diagnosis of CA-AKI admitted in the medicine ward of B.P. Koirala Institute of Health Sciences, Dharan between April 2017 and March 2018 were retrieved and reviewed. A predesigned proforma was filled. Data were entered in MS-Excel and later analysed using SPSS version 11.0.

Results: A total of 366 patients with a discharge diagnosis associated with sepsis and CA-AKI were found. The mean age of the patients was 55.87 ± 18.36 years. Majority were male (53.7%, $n=193$). The median hospital stay was 5 days (Range: 1 day-37 day). Sepsis as an etiology of CA-AKI was seen in 103 (28.1%) patients. Sepsis complicated CA-AKI was recorded in 19 (5.2%) patients. Other common etiologies of CA-AKI were cardio-renal syndrome (19.76%), hypovolemia (11.21%), and glomerulonephritis (10.62%), etc. Dialysis was done in 29 (7.9%) of the patients. Majority of patients (78.7%, $n=288$) achieved complete recovery while 54 (14.75%) had partial recovery at the time of discharge. 24 (6.6%) of the patients suffered in-hospital mortality. Mortality was higher in patients with AKI complicated by sepsis ($p=0.009$).

Conclusions: Sepsis as a cause and/or complication is high in patients with CA-AKI. A prospective study of CA-AKI is recommended to better understand sepsis-associated CA-AKI.

PV635 / #802

RENAL INVOLVEMENT IN SJOGREN S SYNDROME: CASE REPORT

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Background and Aims: Primary Sjögren's syndrome (pSS) is a chronic progressive autoimmune disorder characterized by lymphocytic infiltration of the exocrine glands, which affects the

salivary and lacrimal glands, presenting dryness of the mouth and eyes. The renal involvement in pSS consists of immune complex glomerulonephritis and interstitial disease with interstitial infiltration by lymphocytes, tubular atrophy and fibrosis.

Case report: A 34-year-old woman who had polyuria and polydipsia for 10 years ago, chronic asymptomatic hypokalemia, kidney stones, and rashes. The patient mentioned long-standing severe dry mouth without any skin or eye dryness. The anti-Sjögren's antibody A and B were checked and were both found to be positive. A skin biopsy of the lesion on the lower extremities was performed, which led to a diagnosis of leukocytoclastic vasculitis and ruled out SLE. A kidney biopsy was obtained, which revealed tubular interstitial fibrosis with infiltration of lymphocytes and plasmacytes and glomeruli with completely or near-completely sclerotic, with no endocapillary hypercellularity, crescent formation, or evidence of thrombosis. For pSS treatment, she was started on azathioprine, hydroxy-chloroquine, and steroids.

Results: An ophthalmology exam diagnosed dry eyes, even though the patient was completely asymptomatic. Acidosis improved and her bicarbonate level normalized. Nocturia and polyuria, which were her chief concerns, improved.

Conclusions: The patient presented renal manifestations of pSS, including diabetes insipidus, renal tubular acidosis type I, tubulointerstitial nephritis, and nephrolithiasis. None of these findings are common presentations of pSS. The presence of all of these symptoms in one individual makes this patient an interesting and unique case.

PV636 / #857

POST-OBSTRUCTIVE POLYURIA: CREATININE 18MG/DL; DIURESIS OF 10.6L IN 24H

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Background and Aims: A 76 year old man, with history of benign prostatic hypertrophy, mechanical prosthesis in an aortic position and hypocoagulated with warfarin, went to the emergency department for abdominal pain, melena and anuria with 5 days of evolution. On objective examination: painful abdomen on palpation in the hypogastrium, palpating the bladder globe. Analytical evaluation: Hb 3.96 g/dL; urea 400 mg/dL, creatinine 18.2 mg/dL. He was cuffed and started intravenous hydration. He had a urine output of 10.6 L in <24h, having made about 4000 cc of serum in that period.

Methods: Urinary retention is a relatively common urological problem and should be suspected in patients with abdominal pain and difficulty in urinating. Pathological post-obstructive diuresis is an abnormal state of polyuria, defined by a urinary output of >3000cc in 24 hours. These patients are at risk of severe dehydration, electrolyte imbalances, hypovolemic shock and death. We intend to discuss the importance of hydration in post-obstructive polyuria.

Results: During hospitalization, he had a renal/bladder ultrasound. Presented hypokalaemia, hypernatremia. He was kept under intravenous hydration and had a gradual improvement in renal function, at the time of discharge with creatinine 4mg/dL and urea 80mg/dL. He underwent transurethral resection of the prostate.

Conclusions: Despite the expected post-obstructive diuresis, there was a marked volume depletion, with high risk of dehydration and electrolyte changes. At a time when the excess volume used in resuscitation is already being discussed, maintaining a patient with post-obstructive polyuria is an exception. Monitoring and hydrating is essential, especially when the loss of fluids and electrolytes is excessive.

PV637 / #858

NEPHROTIC SYNDROME, EOSINOPHILIA AND THROMBOCYTOPENIA IN A YOUNG PATIENT: AN UNUSUAL PRESENTATION OF MINIMAL CHANGE DISEASE

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Background and Aims: Minimal Change Disease (MCD) accounts for ~15% of all cases of nephrotic syndrome (NS) in adults. It may be primary or associated with systemic diseases (i.e., lymphomas, autoimmune disorders), infections, drugs or allergies. Herein, we present an interesting case of a young patient presenting with NS and thrombocytopenia.

Methods: A 44-year-old female, with a recent history of asthma and NSAIDs overuse, presented with progressively worsening bilateral lower extremity edema for the last two weeks and thrombocytopenia. Physical examination was unremarkable.

Results: Laboratory tests revealed thrombocytopenia (88,000/ μ l), mild eosinophilia (1,080/ μ l) and low albumin levels (28.6 g/L) with concurrent severe renal protein loss (13g/24h). Serologic evaluation for infectious and autoimmune diseases was normal. Serum and urine protein electrophoresis revealed no monoclonal band. Echocardiogram and whole-body CT imaging showed no underlying pathology. Peripheral blood smear microscopy was normal, while bone marrow analysis revealed low grade clonal T cell infiltration. Molecular testing for myelo- or lymphoproliferative diseases was also negative. Renal biopsy findings were compatible with MCD. Thrombocytopenia was attributed to the NSAIDs overuse or an ITP-like syndrome related to MCD. The patient was treated with methylprednisolone 64 mg/d and LMWH. Two weeks later, laboratory testing revealed 0.1 g protein/24h and normal blood count.

Conclusions: Renal biopsy is crucial in patients with NS. Although MCD is characterized by complete remission in most cases when treated with corticosteroids, close follow-up is highly recommended, due to its high relapse rate, as well as its association with underlying systemic disorders that may arise even years after the initial diagnosis.

PV638 / #875

THE ASSOCIATION OF ARTERIAL STIFFNESS WITH INTRADIALYTIC HYPERTENSION IN HEMODIALYSIS PATIENTS

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Background and Aims: Intradialytic hypertension (ID-HTN) is independently associated with all-cause and cardiovascular mortality in hemodialysis (HD) patients. The aim of the study was to examine the relationship between ID-HTN and arterial stiffness in end-stage renal disease patients on HD.

Methods: Consecutive HD patients with regular vascular access were enrolled. All of the patients underwent routine HD 3 times a week (4-4,5 hours per session) using standard high-flux dialysis membranes. We excluded subjects with eKt/V <1,2 and dialysis vintage <3 months. Arterial stiffness was assessed as aortic pulse wave velocity (PWVao) and aortic augmentation index corrected for heart rate 75 (Alx75) obtained by oscillometric measurements of the brachial artery waveform during 24-hour ambulatory blood pressure monitoring. ID-HTN was defined as an increase of 10 mmHg or more in systolic blood pressure (SBP) postdialysis compared to predialysis values.

Results: Twenty-eight HD patients (56% males, median age 55 [47.5; 62.0] years, dialysis vintage 3.5 [2.1; 7.7] years) met the inclusion criteria. Participants with ID-HTN (n=11) had significantly higher pre-dialysis SBP, PWVao and Alx75. ID-HTN was inversely associated with diabetes nephropathy, urine output, serum creatinine and albumin levels.

In multivariate logistic regression we obtained two independent predictors of ID-HTN: Alx75 >25.8% (relative risk (RR) 2,200; 95% confidence interval (CI) 1,152-4,203) and PWVao >11,95 m/s (RR 2,157; 95% CI 1,259-6,125).

Conclusions: In this study, Alx75 >25.8% and PWVao >11,95 m/s were associated with high frequency of ID-HTN, suggesting the leading role of progressive arterial stiffness in the occurrence of this specific cardiovascular complication.

PV639 / #894

PROFILE OF ACUTE KIDNEY INJURY IN CRITICAL CARE PATIENTS

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Background and Aims: Acute kidney injury is a global health problem. This study aims to study the causes and treatment related outcomes of the patients with AKI in an ICU from an Indian teaching hospital.

Methods: It was a prospective cohort study conducted in a tertiary care hospital in South India from December 2016 to November 2019. All patients in the ICU were screened for enrolment in AKI using RIFLE criteria with creatinine, GFR and urine output daily for a period of seven days.

Results: A total of 152 patients were taken for final analysis after exclusions. The mean age of the subjects was 44.15 years. Majority of the study subjects (55.9%) belonged to 26-50 years of age. Majority of the study subjects were females (51.3%) and the rest were males. Sepsis was found to be present in 52% (79) of the study subjects followed by Gastro Intestinal loss 36.2% (55), crush injury 9.03% (15), snake bite 3.3% (5), poisoning 4.6% (7) and acute liver failure 1.3% (2). It was found that 62.5% (95) of the study subject's AKI had resolved after appropriate management. Among the rest of the study subjects, 27.6% required hemodialysis for recovery, 3.3% had persistence of AKI, 3.9% progressed to CKD and 2.6% died.

Conclusions: In conclusion, even though sepsis is the commonest cause of AKI, Gastrointestinal loss independently contributes to poor outcome of AKI. Majority of the people recovered from AKI spontaneously with conservative management. Few people required dialysis for recovery of AKI & very few people progressed to CKD.

PV640 / #987

IS IT JUST MYELOMA?

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Case Description: 82-year-old female with hypertension and type-2 diabetes mellitus is admitted due to a two-week long anasarca. Initial blood tests were significant to urea 182 mg/dl, creatinine 3,07 mg/dl and NT-proBNP 3012 pg/ml, and urine sample had protein +++ and haemoglobin +++; diagnostic paracentesis was compatible with a transudate. Hypoalbuminemia 1.6 g/dl and ratio proteinuria/creatininuria 9695 mg/g confirmed nephrotic syndrome and further studies revealed a IgG kappa/lambda monoclonal gammopathy; myelogram confirmed multiple myeloma diagnosis. Simultaneously, abdominal ultrasound suggested chronic liver disease.

Clinical Hypothesis: Presentation as a nephrotic syndrome made us think that there must be another cause to this kidney disease, so we continued with further studies.

Diagnostic Pathways: Fat pad biopsy was inconclusive, but kidney biopsy confirmed AL amyloidosis. More blood tests suggested that liver disease was from autoimmune cause (ANA 1:640; ASMA 1:100 and remaining causes were excluded), but liver biopsy was not performed.

Conclusion and Discussion: Coexistent AL amyloidosis is a well-recognized association with multiple myeloma, mostly when there is nephrotic albuminuria and anasarca. When we suspect of amyloidosis, histologic diagnosis is essential and a sample from the affect organ should be obtained because abdominal fat pad is frequently negative, as we have seen in this case. Multiple myeloma patients seem to have as increased risk of several autoimmune diseases, so despite we have not found any similar cases, we cannot ignore the possibility that autoimmune hepatitis is secondary to multiple myeloma.

PV641 / #993

CARDIORENAL SYNDROME TYPE 1: BEYOND DIURETICS

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Background and Aims: The cardiorenal syndrome type 1 (CRS1) occurs when an acute cardiac dysfunction causes acute kidney injury (AKI). Venous congestion represents one of its main mechanisms and one of the targets of the treatment. Renal replacement therapy (RRT) is an alternative if low/no response to diuretic. The primary outcome of this study was to compare patients with CRS1 responsive to diuretic and who underwent RRT.

Methods: Retrospective review of the patients admitted to the Nephrology department from January 2017 to December 2019 with CRS1.

Results: From 39 patients, 59% were women, with a mean age of 76.9±9years and a high prevalence of diabetes mellitus (89.7%) and hypertension (HTN) (87.2%). Chronic kidney disease (CKD) was present in 94.8% (mean GFR 26mL/min/1.73m²) (CKD-EPI). Heart failure (HF) was present in 92.3%, 63.8% with low-ejection fraction. The main HF decompensating agents were infection (23.1%), bad adherence to therapeutic (23%) and acute coronary syndrome (ACS) (12.8%). All patients were started on IV furosemide, 35% in association with another diuretic, 69.2% had no response and started RRT. A history of CKD, HTN and oligoanuric AKI at admission were related to the need of RRT (p <0.05). The mean time of RRT was 2.5±1.5 days. The maintenance RRT was related to known end-stage CKD (mean GFR 18.3±5.9mL/min/1.73m²);

ACS at admission and advanced HF (p <0.05). The intra-hospital mortality rate was 0.3% and 28,2% at 6 months follow-up.

Conclusions: It is important to recognize early the patients in higher risk of low/no response to diuretic in CRS1, so that we can adopt individualized therapeutic strategies.

PV642 / #1023

KIDNEY FAILURE: A WORLD OF DIFFERENT DIAGNOSES

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Background and Aims: A 66-year-old man with a history of smoking, without further comorbidities, was observed at the emergency department due to worsening renal function after routine laboratory tests noted a serum creatinine (Cr) of 4.8 mg/dL (Cr 3.5 mg/dL recorded ten days before), with normal Cr values six months previously. The patient complained of nausea, denied changes in urinary output or other symptoms. On physical examination: systolic blood pressure of 165 mmHg, no peripheral edema. Blood tests revealed hyperkalemia (5.5 mEq/L), without acidemia and a microcytic anemia. Urinalysis showed proteinuria (4 g/L). There was increased corticomedullary differentiation in both kidneys on ultrasound, without hydronephrosis.

Methods: Considering the decline in renal function, the patient was admitted in the Internal Medicine Department with a probable subacute kidney disease (SKD) for further evaluation. Obstructive causes were excluded on ultrasound and prerenal causes seemed unlikely given the clinical and laboratory findings. An intrinsic etiology, such as vascular, glomerular or tubular-interstitial disease, was the most likely hypothesis.

Results: Further tests confirmed proteinuria in the nephrotic range and the kidney biopsy revealed crescent formation and other findings suggestive of vasculitis and pauci-immune glomerulonephritis. An autoimmune panel was positive for ANCA-MPO antibodies.

Conclusions: The patient started treatment with glucocorticoid and cyclophosphamide for an ANCA-associated vasculitis (AAV), leading to a slow but progressive improvement in renal function. Considering that AAV has a poor prognosis if no treatment is provided, a quick and efficient diagnosis is essential in cases of SKD in order to prevent further decline in kidney function.

PV643 / #1088

EMPHYSEMATOUS CYSTITIS IN A NON DIABETIC PATIENT: THE VALUE OF CT IMAGING

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Background and Aims: A 85-year-old male with medical history of vascular dementia and hemorrhagic stroke 2 years ago, presented to emergency service with fever (40°C), dyspnea and vomiting. On physical examination, the patient was prostrate, dehydrated, without evidence of jaundice, blood pressure of 110/66 mmHg, frequency of 60 bpm and oxygen saturation of 97% on room air. His abdominal examination was benign and pulmonary and cardiac auscultation were normal.

Methods: At this point physicians suspected of possible pancreatitis, urinary infection or even pyelonephritis, but further studies had to be done to clarify the diagnosis.

Results: Arterial blood gases revealed hyperlactacidemia without acidosis. First blood results showed raised leukocytes with 90,5% neutrophils, slight increase of C-Reactive Protein, ALT of 735 U/L, AST of 934 U/L, amilase of 560 U/L, lipase of 1504 U/L, GGT of 319 U/L and LDH of 771 U/L. Serum creatinine was normal of 1.0 mg/dl and urea 99 mg/dl. SARS-CoV-2 test was performed which was negative. In this context, computed tomography of the abdomen and pelvis was carried out which showed gallbladder distension with wall thickening, sludge and pericholecystic fluid, sufficient for the diagnosis of cholecystitis. Moreover, it described intraluminal and intramural gas in the bladder but without gas involves the renal parenchyma. Urine culture isolated *Escherichia coli*.

Conclusions: Emphysematous cystitis is a rare form of complicated urinary tract infection that usually occur in diabetic patients. Imaging methods play an important role in differential diagnosis of emphysematous cystitis and pyelonephritis because it differs in treatment, being the latter of surgical treatment.

PV644 / #1177

RENAL IMPAIRMENT AS A PREDICTOR FACTOR FOR LONG-TERM MORTALITY

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Background and Aims: Chronic renal dysfunction has been shown to be an independent risk factor for morbidity and mortality in elderly patients. The purpose of this observational study was to determine the association between renal dysfunction and mortality during long-term follow-up.

Methods: All patients admitted to an Internal Medicine Department between October 2013 and October 2014 were followed post discharge for 72 months.

Results: A total of 681 patients were included in the analysis. Mean age was 76 years. Renal function was normal (GFR >90 ml/min) in 32% patients, whereas 30.4% had moderate impairment (GFR 30 to 60) and 10.1% patients had severe impairment (GFR <30). Death occurred in 400 (59%) patients. The majority of patients with renal impairment (RI) died (81%) during the 6 years follow-up period. The mortality was higher as the RI stage was more advanced (stage 2 - 52%, stage 3 - 73%, stage 4 - 79% and stage 5 - 86%). At all RI stages, early mortality, 6 months after discharge, was significantly higher compared to longer term mortality. Kaplan-Meier survival analysis demonstrated that estimated time until death was significantly lower for patients with moderate (4 months vs 7 months; CI 95% 4,228 - 9,772) and severe (3 months vs 8 months; CI 95% 1.524 - 4.476) renal impairment compared with the group with normal renal function following an hospital admission.

Conclusions: Moderate and severe RI was an important predictors of all-cause mortality. These patients should be closely monitored in the early post-discharge period.

PV645 / #1188

NEPHROCALCINOSIS AND PRIMARY SJOGREN SYNDROME

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Background and Aims: Type 1 renal tubular acidosis (RTA) is reported as one of the most lithogenic diseases. Kidney stone disease (KSD) as primary cause of chronic kidney disease (CKD) is rare (2-3%) but has severe consequences. RTA is rarely inherited and primary Sjogren Syndrome pSS can be one of the main causes.

Methods: Case Reports: A 35 years-old woman presents with severe nephrocalcinosis and CKD with tubular proteinuria. No clinical sicca syndrome.

Results: Metabolic investigation reported low serum bicarbonate, permanent alkaline pH and undosable citraturia corresponding to type 1 RTA without hypercalciuria. Ureteroscopy shown diffuse submucosal nephrolithiasis. The autoimmunity screening was positive for antinuclear antibodies (>1/1280) with anti-SSA, anti-SSA Ro52, anti-SSB antibodies. Anti-dsDNA, anti-Sm, anti-nucleosome antibodies, ANCA, anti-GBM antibodies and cryoglobulinemia were all negative. No complement consumption. Serological screening for HAV, HBV, HCV, HIV, EBV negative. A renal biopsy performed demonstrated a tubulointerstitial nephritis TIN without any glomerular involvement. Corticosteroids and citrate substitution were initiated with improvement of renal function

Conclusions: In patient with RTA, urolithiasis, hypocitraturia and anti-SSA/SSB, pSS should be considered. Renal manifestation of

pSS varies from ionic disturbances, TIN or nephrolithiasis. These can lead to CKD in absence of early diagnosis and adequate treatment. Underdiagnosed, type 1 RTA and TIN are reported to occur 2 to 7 years after the onset of pSS, but may already develop before sicca symptoms. This case highlights the importance of considering autoimmunity in the investigation of RTA in TIN and nephrocalcinosis and reminds that renal involvement could be the first manifestation of pSS.

PV647 / #1285

BERGER'S DISEASE: A CASE REPORT

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Background and Aims: Initially described in the late 1960s by Berger and Hinglais, Berger is characterized by the predominant deposition of IgA (and, to a lesser extent, other immunoglobulins) in the renal glomerulus mesangium. According to Barratt (2005), IgA nephropathy is the most common lesion found in primary glomerulonephritis across the most developed countries in the world. This work aims at presenting a case study, evaluating the difficult diagnosis of Berger's disease and its maintenance after its diagnosis.

Methods: This is a case study of a patient monitoring in Renal Therapy Center of Lages, Brazil. Data were collected through interviews with the patient and reports of diagnostic tests

Results: After a diagnostic hypothesis of IgA Glomerulonephritis, requested complementary changes showed significant changes that corroborated for the hypothesis: 24h proteinuria: 2641.24 mg/24h; Normocytic and normochromic anemia discreet; CH50 (complement): 134 u/CAE; Presence of dysmorphic red blood cells at sediment analysis exam. Thus, they showed mostly changes compatible with glomerulonephritis. Renal biopsy (gold standard) showed mesangioproliferative glomerulonephritis with expansion of the mesangial matrix and areas of sclerosis. In note the morphological Picture associated with immunofluorescence findings are compatible with IgA nephropathy. Treatment was started with antihypertensive drug. It is also being followed up with a nutritionist to control protein intake, lipid and carbohydrate levels and increased daily water intake. Along with this he started a routine physical exercises.

Conclusions: Early diagnosis of Berger's disease interferes with a better prognosis, since significant maintenance measures need to be taken, reducing the patient's hematuria and proteinuria.

PV649 / #1590

LOGISTIC REGRESSION MODEL TO PREDICT INTRADIALYTIC HYPERTENSION IN PATIENTS WITH END STAGE RENAL DISEASE

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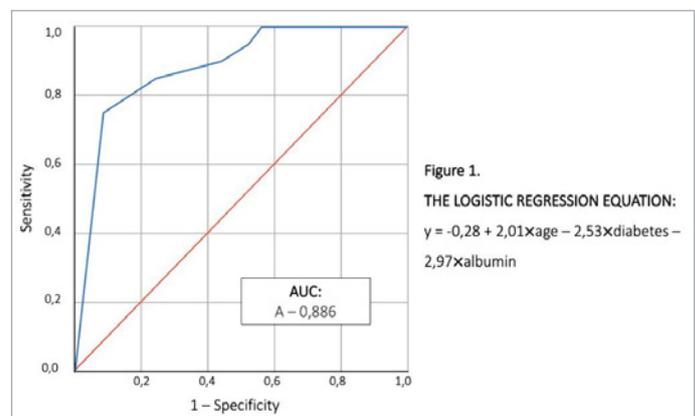
Background and Aims: Intradialytic hypertension (ID-HTN) is a serious cardiovascular complication and an independent mortality risk factor in hemodialysis (HD) patients. However, predicting the occurrence of ID-HTN clinically is a complicated task. This study aimed to develop a predictive model for ID-HTN with high accuracy and high explanatory power.

Methods: A single-center observational cross-sectional study was performed. We enrolled 45 HD patients (60% males, median age 51 [41; 61] years, dialysis vintage 4,5 [1.1; 7.8] years) who underwent 5,644 HD treatment sessions. We excluded subjects with eKt/V <1.2 and dialysis vintage <3 months. ID-HTN was defined as an increase in systolic blood pressure (SBP) more than 10 mmHg after HD session.

Results: 20 patients (44%) suffered from ID-HTN. They were older and had significantly lower albumin, urine output and significantly higher pre-dialysis SBP, than patients without ID-HTN. ID-HTN was also associated with use of highly dialyzable drugs and inversely associated with diabetic neuropathy. Bivariate correlations ($p < 0,05$) and cut-off value for each predictor are shown in Table:

CHARACTERISTIC	ID-HTN (N=20)	CONTROL (N=25)	R	CUT-OFF VALUE
Age, y	56 [50,3; 62]	43 [31; 55]	0,391	48
Residual renal function, n (%)	7 (35%)	18 (72%)	-0,370	1
Diabetes mellitus, n (%)	2 (10%)	9 (36%)	-0,301	1
Pre-dialysis SBP, mmHg	154 [144; 160]	142 [138; 150]	0,354	147
Highly dialyzable drugs, n (%)	13 (65%)	6 (24%)	0,412	1
Albumin, g/l	37 [34; 38,75]	43 [36; 45,5]	-0,394	42,5

#1590 Table: Numerical data are presented with median (Me) and interquartile range (IQR); R – Spearman's rank correlation coefficient; cut-off value was identified using a ROC curve.



#1590 Figure

Using the identified risk factors, we constructed a predictive model for ID-HTN based on logistic regression: $y = -0.28 + 2.01 \times \text{age} - 2.53 \times \text{diabetes} - 2.97 \times \text{albumin}$; $p = \exp(y) / (1 + \exp(y))$.

Figure 1590. shows the covariate-adjusted ROC curve by logistic regression model.

Conclusions: In present study 44% of dialysis patients suffered from ID-HTN. Our logistic regression model based on age, diabetes mellitus and albumin demonstrates high predictive value (AUC 0,886) with sensitivity of 85% and specificity of 76%.

PV650 / #1625

EDEMA IN A YOUNG MAN

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Case Description: The authors present the case of a 23 years-old male who presented with bilateral leg edema as well as occasional morning edema of the eye lids and upper limbs. His complaints started 3 weeks before and had been worsening ever since. There were no other relevant findings on physical examination. Blood tests revealed an acute kidney injury, hypoalbuminemia, gross proteinuria and hematuria. Renal ultrasound was normal. He was admitted to the hospital ward for further examination.

Clinical Hypothesis: Nephrotic or Nephritic Syndrome which can be caused by diabetes, SLE, HIV, iatrogenia by NSAID or other drugs.

Diagnostic Pathways: The 24h urine analysis revealed nephrotic proteinuria (6.79 g/24h). ANA were negative, as well as ANCA and anti-MBG antibodies. C3 and C4 levels were normal. Serologies were negative. Seric electrophoresis revealed hypoalbuminemia and acute phase proteins elevated with a non-pathological seric immunofixation. An IgG decrease was noticed. The renal biopsy showed a membranous glomerulonephritis and he started taking corticosteroids. As the patient's renal function kept worsening, he was sequentially started on stronger immunosuppressors: cyclophosphamide, azathioprine and rituximab. Only with rituximab did the proteinuria decrease and the symptoms disappear.

Conclusion and Discussion: The sudden onset of edema in a young person should always lead to the suspicion of acute kidney disease, particularly nephritic or nephrotic syndromes. An early diagnosis and correct treatment can be life-saving. A thorough history and physical exam may help with finding the cause. A biopsy of the kidney is the gold standard for establishing the correct diagnosis.



AS11. ONCOLOGIC AND HEMATOLOGIC DISEASES

PV655 / #16

INTRACRANIAL MALIGNANT SOLITARY FIBROUS TUMOR METASTASIZED TO THE CHEST WALL

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Background and Aims: Solitary fibrous tumor (SFT) is a rare fibroblastic mesenchymal neoplasm; it is predominantly benign and rarely metastasizes. It occurs mainly in the tissue structure of the serosa in the pleura and the thorax, and can be found throughout the body, though extra-thoracic localization is uncommon. We recently diagnosed intracranial malignant SFT (IMSFT) metastasized to the chest wall, 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 the keywords "SFT" to identify relevant studies or case reports, based on PubMed databases from January 1st, 2010 to May 31th, 2020.

Results: We found no other cases. The patient was an 81-year-old man. He was referred to our hospital due to progressive gait disturbance. His medical history included partial resection due to brain tumor and radiation therapy, starting when he was 74 years old. A plain head computed tomography (CT) scan revealed an 8×5.1×6.5 cm mixed-density mass at the left frontal lobe, accompanying a midline shift, and a plain chest-abdomen CT scan revealed a 6×4.1×6.5 cm low-density mass in the left chest wall. A CT-guided percutaneous lung biopsy was performed, and the pathological findings were SFT corresponding to brain tumor. We established a definitive diagnosis of IMSFT metastasized to the chest wall. He offered palliative care, afterwards he passed away on the 29th hospital day.

Conclusions: We reported the first case of IMSFT metastasized to the chest wall.

PV656 / #48

LETHALIDES AS FIRST SIGN OF A LUNG NEOPLASM

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Background and Aims: Cutaneous metastases (lethalides) from extracutaneous primary tumors are a rare entity. They appear in 1-12% of cancer patients and are usually a late manifestation of disseminated disease. In men, they are mainly due to primary malignant lung tumors (12-28%). In women, the lung is the fifth most prevalent origin (4%). Lung cancer does not frequently metastasize to the skin, when it does, the median survival time is 5.75 months.

Methods: 54 year-old male smoker of 15 cig/day and drinker of 2 liters of beer/day. Consulted in June-19 due to an erythematous



#48 Figure

and suppuration right malar lesion of 4x4 cm. A skin biopsy was compatible with skin metastasis of squamous cell carcinoma. CT showed a lung lesion and a transbronchial biopsy showed EGFR/ALK/ROS1 negative of lung squamous cell carcinoma, PD-L1 <1%. Extension study evidenced right frontal diploe metastatic in contact with the malar skin metastasis through the transdiploic venous system. Patient began chemotherapy treatment with torpid evolution despite three lines of treatment, dying 7 months after diagnosis.

Results: The appearance of atypical skin lesions makes it necessary to rule out a neoplastic origin, because they could be the first sign of a neoplastic disease. A correct anamnesis is important to discover alarm symptoms. Chemotherapy, surgical excision, and radiation therapy may be helpful for treatment, however mean survival is 3 to 6 months and a mortality >70% in the first year after diagnosis.

Conclusions: We must give the necessary importance to dermatological lesions as a guiding sign for the diagnosis of pathologies such as neoplasms.

PV657 / #50

CUTANEOUS EPIDERMOID CARCINOMA IN RELATION TO SUPPURATIVE HYDRADENITIS WITH BIOLOGICAL TREATMENT

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Background and Aims: Hidradenitis suppurativa is a chronic inflammatory disease with outbreaks of variable intensity, characterized by the presence of boils, painful nodules or abscesses that predominantly affect the large intertriginous areas of the body, especially the armpits, groin and anogenital region. The most severe complication, although rare, is squamous cell carcinoma.

Methods: Forty-eight-year-old male smoker was referred to Dermatology for assessment of inflammatory lesions in gluteal and intergluteal areas since ten years that are in outbreaks and for which he has not performed specific treatment.

Results: Clindamycin and rifampicin were started for ten weeks. Referral was made to Infectious Diseases Unit to rule out active/latent tuberculosis infection. Samples were taken from two paponodular lesions, reported as hypertrophic viral warts. After this, due to lack of response, Adalimumab was started. Due to worsening, it was decided to re-biopsy the lesions, reported as cutaneous squamous cell carcinoma. Patient started Cemiplimab through compassionate use, receiving only one cycle due to progressive deterioration, dying one month later.



#50 Figure

Conclusions: Differential diagnosis should be made with boils, carbuncles, erysipelas, dermoid cysts, lymphogranuloma venereum and tuberculosis. Hidradenitis suppurativa affects areas rich in apocrine glands and hair follicles. Its etiology is unknown but there are associated factors such as smoking, obesity or HPV. It manifests in the form of lesions and fistulous tracts that ooze chronically. Squamous cell carcinoma is a rare complication in chronic wounds and surgery is preferred. Chemoradiotherapy keeps controversial. Although neoplastic degeneration is rare, it has been described, so monitoring and performing biopsies of any suspicious lesion is key.

PV658 / #57

WARM AUTOIMMUNE HEMOLYTIC ANEMIA (WAHA) OF INFREQUENT CAUSE

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Background and Aims: Warm autoimmune hemolytic anemia (WAHA) is a rare and often difficult to diagnose entity. It can

be associated with autoimmune processes, viral infections, immunodeficiencies, hematological and solid neoplasms.

Methods: We review the digital medical record to describe the case.

Results: A 67 year-old woman diagnosed with stage IV synchronous neoplasia of the sigmoid and descending colon due to metastatic liver, who urgently required palliative bypass surgery due to obstructive symptoms. Oncology prescribed several lines of treatment, the last according to the FOLFOX + Bevacizumab scheme with disease progression. Six days after receiving the last chemotherapy regimen, she went to the emergency department due to moderate bleeding through an ostomy. Anemia and progressive thrombopenia were observed, being diagnosed by Hematology of anemia and autoimmune hemolytic thrombopenia due to warm antibodies with the presence of Auto +, CD + and IgGC3d. Prednisone, folic acid, prophylactic cotrimoxazole, and calcium supplements were started at 1 mg/kg/day. During her hospitalization, deterioration of renal function was observed, assessed by Nephrology, they diagnosed renal failure of mixed etiology: prerenal (diathesis from ostomy and hydrosaline depletion) and use of nephrotoxic agents. She evolved favorably, recovering the hemoglobin and platelet levels prior to admission.

Conclusions: WAHA is a difficult-to-diagnose entity that usually responds well to corticosteroid treatment. Its association with solid neoplastic processes is infrequent. The limited publication of similar cases makes this complication a diagnostic challenge that requires a multidisciplinary approach.

PV659 / #58

CAN A MAN HAVE AS MANY DISEASES AS HE DAMN WELL PLEASES?

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Background and Aims: A 55 year-old Caucasian man was admitted for a three-week history of ascites and abdominal pain. During emergency-department evaluation a pleural effusion was also noted. Medical history started in 2018 with legs numbness and tingling, interpreted as chronic-inflammatory-demyelinating-polyneuropathy. During neurological workup, an IgA-lambda monoclonal-gammopathy-of-undetermined-significance was defined. Recent blood exams showed TSH elevation; thyroid ultrasound was compatible with thyroiditis. Also, mild renal function decrease was recently highlighted.

Methods: Physical examination: prominent ascites was noticeable; vesicular breath sound was reduced at lung bases. Hemangiomas was evident all-over skin; he also reported legs brownish discoloration. Legs hypoaesthesia was noted. Cardiac examination was unremarkable. Laboratory showed mild anaemia. C-reactive-protein was normal. Electrophoresis confirmed mild IgA-lambda monoclonal-gammopathy. Autoantibody screening was unremarkable. Peripheral-blood phenotyping showed no clues. Bacteriological, mycobacteria and viral screening tested

negative. A paracentesis retrieved low cellularity, high protein fluid, cultural exams were negative; cytologic examination showed no atypic cells. Hypoandrogenism was noted.

Results: Diagnostic workup was conducted in thought that patient rich medical history could be fitted in a unifying diagnosis. While systemic autoimmune diseases or vasculitides could be intriguing hypotheses, there were no hematologic alterations and autoantibodies resulted negative. A positron-emission-tomography showed no neoplasm signs. Considering lysosomal storage diseases, there was no cardiac involvement and testing resulted negative. Fat pad biopsy showed mild congo-red stain positivity, but subsequent bone-marrow biopsy resulted negative for amyloidosis, although displaying plasma-cell infiltrates.

Conclusions: POEMS syndrome was the most convincing hypothesis: while no osteolytic lesions were evident and VEGF tested normal, plasma-cell infiltrates producing IgA-lambda and polyneuropathy along with minors diagnostic criteria were enough for diagnosis. The patient was then administered chemotherapy in haematological ward.

PV661 / #130

A COLORECTAL CANCER IN A YOUNG MAN

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Background and Aims: Lynch syndrome (LS) is a rare inherited disease with autosomal dominant transmission responsible for about 2 to 5% of the colorectal cancer. Individuals with LS have a 70% risk of developing this type of cancer usually at younger ages and mainly in the right colon.

Methods: A 44 year-old man with history of high blood pressure, depressive syndrome and toxicophilic habits. He presented to the ER with asthenia, history of weight loss and bilious vomiting.

Results: Analytically, severe ferropenic anemia that required blood transfusion and acute kidney injury, that improved with intravenous hydration. Upper digestive endoscopy (UDE) showed gastric stasis and gastritis; total colonoscopy showed diverticulosis and a polyp non-malignant; body CT showed a thickening of proximal jejunum. He was discharged, maintaining outpatient follow-up; performed enteroscopy that showed numerous movements of the capsule at duodenal level, with backward movements to the stomach. He keeps vomiting so he was hospitalized. Repeated UDE to remove videocapsule and a lesion in D3/D4 causing non-surpassable stenosis was seen. Body CT confirmed upper intestinal occlusion distal to the Treitz angle, with distention of the stomach and duodenum and involvement of jejunum loops. He underwent laparotomy and resection of the lesion. It was compatible with adenocarcinoma, with loss of expression of MSH2 and MSH6, with a high probability of LS, so he was proposed for adjuvant chemotherapy and referred for genetics consultation.

Conclusions: It is important to be aware of hereditary syndromes that may be related to colorectal cancer at young ages since its incidence is not negligible and has great impacts on prognosis.

PV662 / #148

DESCRIPTIVE STUDY OF THE LEVEL OF SELF-TRANSCENDENCE AND WELL-BEING OF CANCER PATIENTS

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Background and Aims: Self-transcendence is a quality inherent in every human being. This process of personal transformation allows cancer patients to find real meaning and purpose in life. It is characterized by the ability of cancer patients to expand their awareness of their surroundings on the intrapersonal, interpersonal and transpersonal levels. The objective of this study was to assess the level of self-transcendence and well-being of patients with treated cancer.

Methods: This is a descriptive study which included patients treated in the medical oncology department at the Habib Bourguiba university Hospital. Data collection was carried out by a self-transcendence questionnaire developed by the theory of Pamela G-Reed and validated by experts in the field of health. We used also the FACT-G score.

Results: 42 patients were interviewed. The surveyed sample was made up of 75% of women and 25% of men. Patients were over or equal to 50 years old in 52% of cases. Metastatic cancer was present in more than half of the cases (52.5%). 80% of patients were treated with chemotherapy, and 12% of cases were treated with intermittent chemotherapy with radiotherapy. The results of the overall self-transcendence level remain high in the majority of cases (77%), against (23%) who had a moderate level. The level of overall well-being of cancer patients remains moderately impaired in 85% of the cases. 10% of the cases had a little altered degree and 5% had an altered degree.

Conclusions: Our data were similar to those of the literature. Recommendations are needed to improve the self-transcendence and well-being of cancer patients.

PV663 / #150

FEBRILE NEUTROPENIA SECONDARY TO DOCETAXEL IN LOCALIZED BREAST CANCER

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Background and Aims: Docetaxel is an antineoplastic agent of the taxane family. Its effectiveness in terms of reducing mortality has been demonstrated. However, it can have serious side effects. The aim of this work is to screen for febrile neutropenia in patients with localized breast cancer treated with docetaxel.

Methods: This is a prospective study with 60 patients treated for localized breast cancer over a period of one year. Neutropenia was defined by a neutrophil count less than or equal to 1500. Fever in febrile neutropenia was defined as a temperature greater than 38.3°.

Results: We collected 60 patients whose mean age was 51 years. Febrile neutropenia was present in 5 patients (8.33%) with a mean time to onset of neutropenia of 7 days with extremes ranging from 6 to 9 days. Hospitalization and an infectious investigation were indicated in the 5 patients with antibiotic therapy with ceftazidime amikacin in 3 patients and with ceftazidime, amikacin and metronidazole in 2 patients with aciclovir in one patient and fluconazole in another. The outcome was favorable in 4 cases without recurrence after reintroduction of the drug. In the other case, grade 4 febrile neutropenia was associated with grade 4 anemia, severe asthenia, polyarthralgia and colitis confirmed by colonoscopy; hence the definitive discontinuation of the cytotoxic was recommended.

Conclusions: Docetaxel is a cytotoxic agent which is used in the treatment of breast cancer. However, its use is often associated with many side effects that can sometimes be serious and require its discontinuation.

PV664 / #154

SURGERY OR CHEMOTHERAPY, WHICH ONE TO GO FIRST IN GASTRIC CANCER?

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Background and Aims: Gastric cancer is associated with high morbidity and mortality rates worldwide. Advanced gastric cancer is a serious disease which has a poor prognosis and affects the quality of life because of gastrointestinal stenosis.

Methods: A 54 year old female patient was admitted to the first Surgical Clinic. Emergency Clinical County Hospital of Targu Mures

accusing epigastric pain accompanied by nausea, loss of appetite and weight loss. The actual pathology onset was insidious during the past 6 months without symptoms improvement after the symptomatic treatment. An upper gastrointestinal endoscopy was performed showing an exulcerated infiltrative tumor, affecting the gastric wall circumferentially 5-7 cm under cardia. We decided that preoperative chemotherapy should be the first choice, followed by surgery.

Results: A 4/5 subtotal gastrectomy with end-to-end manual gastro-duodenal (Pean) anastomosis and D1 lymphadenectomy was performed. The postoperative evolution was uneventful. In the 5th postoperative day a barium swallow test was performed showing no leakage and the patient was discharged on day 10 postoperatively.

Conclusions: The preferred treatment for advanced gastric cancer is surgery, considered to be the only radical treatment but in some cases, patients can receive preoperator chemotherapy which can shrink the tumor on specific types of histopathological forms.

PV665 / #156

THE IMPACT OF KIDNEY FUNCTION ON SURVIVAL IN ELDERLY PATIENTS DIAGNOSED WITH PRIMARY ACUTE MYELOID LEUKAEMIA

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Background and Aims: Acute myeloid leukaemia (AML) is an aggressive haematologic cancer. Its treatment depends on patient age, performance status (PS), and other comorbidities, while higher treatment toxicity was reported with worse kidney function. Less is known about the impact of chronic kidney disease (CKD) on survival in elderly patients with primary AML.

Methods: We performed a single centre retrospective analysis of 41 patients (49% male) aged over 65 years with primary AML. The median observation period lasted 107 days (IQR 289, maximum 1169). PS was calculated, patient history, a complete blood count, basic biochemistry profile, and a bone marrow biopsy were done. The estimated glomerular filtration rate (eGFR) was calculated using the CKD-EPI creatinine equation and CKD was defined as eGFR <60 ml/min/1.73m².

Results: The median age of patients was 78 years. The mean eGFR was 58.5±21.9 ml/min/1.73m². CKD was present in half of patients (51.2%). The CKD group was significantly older than the non-CKD group, median 84 and 73.5 years (p=0.012), respectively. During the observation period 34 (82.9%) patients

died. Kaplan-Meier survival analysis showed statistically lower survival for CKD compared to non-CKD patients (p=0.037). Cox regression model, adjusted for age, comorbidities, and treatment, revealed the main predictors for patient survival to be CKD, PS, and blast percentage.

Conclusions: Our results indicate that elderly CKD patients with primary AML have a worse survival. Further studies should be done to evaluate possible interventions and tailor chemotherapy regimen to kidney function in these patients.

PV666 / #157

LOW BACK PAIN AS PRESENTATION OF SICKLE CELL DISEASE: CASE REPORT

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Introduction: Sickle cell disease result from a beta-globulin mutation that cause production of S hemoglobin. Clinical manifestations result from hemolytic anemia and vaso-occlusive events.

Clinical Case: 27 year-old male, black, born in Guinea-Bissau, resident in Portugal. Resorted to the ER for severe low back pain. Performed an abdominal ultrasound that showed hepatomegaly and vesicular lithiasis and presented hemolytic anemia, leukocytosis, cytolysis and cholestasis. The blood smear showed numerous sickle cells and some target cells. Electrophoresis revealed 6% of HgF and 85% HgS, not detecting HgA2 and HgA1c. All these findings led to the hypothesis of a vaso-occlusive crisis in the context of sickle cell disease although the triggering factor was not evident. He referred anemia in childhood with transfusion need, family history of sickle cell anemia (mother and sister) but denied previous episodes similar to this one. He performed CT scan that showed cardiomegaly, pulmonary opacities translating atelectasis, pancreatic atrophy with multiple calcifications suggestive of chronic pancreatitis and the spleen was not identified. During hospitalization presented fever, cough, respiratory failure and increased inflammatory parameters.

Results: He performed a chest CT that showed extensive lobar consolidation. A study was carried out aimed at other organs where non-recent cerebral gliotic/ischemic foci were identified which did not meet the criteria for silent infarcts.

Conclusions: Despite the anemia requiring several transfusions a favorable clinical evolution was observed namely the infectious process in response to antibiotics. He was discharged with an indication for vaccination (pneumococcus, haemophilus and meningococcus) due to the asplenia.

PV667 / #158

ACUTE NEUROLOGICAL DEFICIT AS PRESENTATION OF UNKNOWN NEOPLASM: CASE REPORT

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Introduction: Neoplasms of unknown primary origin are tumors in which the malignancy is demonstrated by biopsy and the primary site is not identified after an exhaustive investigation.

Case Description: 63-year-old male, smoker. Resorted to the ER due to decreased strength and hypoaesthesia of the left lower limb, headache and lumbago. Performed a brain CT that revealed multiple intra-axial lesions and thoraco-abdominal CT showed an irregular nodular lesion and several micronodules in the left lung, an adenopathic conglomerate in the hilum and several hepatic and adrenal nodular lesions of probable secondary origin.

Diagnostic Pathways: He underwent bronchofibroscope where irregular hypervascularized endobronchial neoplasia was observed. Biopsy was performed and bronchial aspirate revealed inflammation. The histology described "carcinoma without an unusual phenotype in lung cancer" and immunohistochemistry suggested a metastatic etiology. PET-FDG detected catching lesions in the buttock muscles and diffuse bone metastasis. He was proposed for treatment with holocranial radiotherapy and vinorelbine. About a month later he went to the ER for epigastric pain, hematemesis and melena. The endoscopy revealed multiple ulcerated lesions with a crater-like appearance in the gastric mucosa suggestive of metastases and the patient died due to upper gastrointestinal bleeding. The histology of gastric lesions concluded that it was a sarcomatoid carcinoma.

Conclusions: We present a rare case of sarcomatoid carcinoma. The immunohistochemistry of a mass identified the histological type of tumor through the presence of cell markers. However despite several specific organ markers were tested it was not possible to determine the primary origin of the tumor.

PV668 / #159

MULTIPLE MYELOMA OR MULTIPLE PLASMOCYTOMA: CASE REPORT

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Introduction: Extra-medullary plasmacytoma is a rare immunoglobulin-producing malignant tumor that corresponds to 4% of plasma cell disorders and results from the proliferation of monoclonal plasmocytes. Its most frequent location is nasal cavity or nasopharynx and symptoms are epistaxis, rhinorrhea and nasal obstruction.

Case Description: 58-year-old man, smoker, hospitalized for bilateral pneumococcal pneumoniae with hypoxic respiratory

failure, bacteremia a streptococcus pneumoniae, acute kidney injury and macrocytic anemia. During hospitalization he presented progressive hypercalcemia with neurologic impairment and unilateral epistaxis and an obliterative ulcerated lesion was observed in the right nasal cavity. He reported nasal obstruction for several months and two respiratory infections in the previous 6 months.

Diagnostic Pathways: From the study performed a monoclonal serum peak of immunoglobulins G/K, Kappa light chains in serum and urine, increased sedimentation velocity and B2-microglobulin and decreased albumin were detected. The brain CT and MRI showed lytic bone lesions in calotus, skull base, vertebrae and skeleton. Treatment with antibiotics, fluids and pamidronate was instituted with symptomatic improvement of renal function and normocalcemia. The histology of the nasal mass revealed "respiratory and dermopapillary mucosa where a neoplastic population of plasma cells is identified" and bone marrow biopsy showed 28% of plasma cells. Another CT scan revealed two new mediastinal plasmocytomas. In addition to the plasmocytomas the findings showed the presence of target organ damage constituting diagnostic criteria of Multiple Myeloma.

Conclusions: Induction treatment with bortezomib, lenalidomide and dexamethasone was proposed followed by consolidation with chemotherapy and bone marrow auto-transplant.

PV669 / #167

THE CHALLENGE OF CAVITATED LUNG INJURY

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Background and Aims: Cavitated lung injury can occur in context of infection, neoplasm or chronic systemic disease. A good clinical and epidemiological history is important to the diagnosis. *Staphylococcus aureus* (SA) infection is a cause with increasing incidence and a high mortality rate despite targeted therapy.

Methods: A 79-year-old man, ex-smoker, diabetic, with 2 weeks of right knee pain and edema of the lower limb. He had inflammatory signs and severe pain at mobilization. Analytically with normocytic/normochromic anemia, acute kidney injury and elevated C-reactive protein. Arthrocentesis with purulent material. Septic arthritis was diagnosed, with isolation of sensitive methicillin SA and bacteraemia by the same agent, and subsequent documentation of multiple abscesses and the need for two joint washes. He completed 6 weeks of targeted antibiotics with clinical improvement. Searching for another cause of infection, it was found a single cavitated lung lesion, spiculated contours and thick wall in left lung's lower lobe.

Results: Cavitory pneumonia/septic embolism was the first hypothesis in a patient who presented with bacteraemia and

septic arthritis. The study was completed, the final diagnostic was primary squamous cell carcinoma of the lung. After resolution of the infectious condition, symptomatic palliative treatment is considered.

Conclusions: Infection is the most frequent cause of cavitated lung disease. However, malignant neoplasm shouldn't be forgotten. In primary lung cancer, cavitation is detected in 7-11% of radiographs and >25% of CT scans. The squamous cell carcinoma is the most often histological type associated with cavitation, which also has a worse prognosis and a higher risk of complications.

PV670 / #187

AN ABDOMINAL PAIN, A CANCER DIAGNOSIS: METASTASES AND SYNCHRONOUS TUMOUR? A CLINICAL CASE OF A CATASTROPHIC VERDICT

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Case Description: 67-year-old woman, history of hypertension and dyslipidaemia, presented with abdominal diffuse pain, two weeks of evolution and aggravation, in the epigastric region, with anorexia, nausea, vomiting and loss of weight. Urinary debt and intestinal function were maintained. She was dehydrated, apyretic, BP 112/74 mmHg, pulse 78, eupnoeic without need of supplementary oxygen. Abdomen was diffusely painful with an epigastric mass. Laboratory findings showed Hb 11.1 g/dl, leucocytes 18.94×10^9 , neutrophilia 16.65×10^9 , CRP 17.21 mg/dl, Urea 341 mg/dl, creatinine 6.5 mg/dl, potassium 6.8 mEq/L. Abdominal radiography displayed a calcified mass in the left quadrant.

Clinical Hypothesis: Elderly people with a constitutional syndrome associated with gastrointestinal symptoms are more likely to be diagnosed with gastric cancer and, despite not the most frequent, may develop a synchronous tumor. Considering radiographic found, renal cancer also needed to be considered.

Diagnostic Pathways: Abdominal CT showed a renal mass with multiple calcifications (15x10 cm), para-aortic adenopathy, a solid mass in the abdominal central region (15x8.7 cm), independent from the renal lesion contacting with stomach large curvature. Multiple bone metastasis in costal arch, acetabulum and right femoral neck. After multidisciplinary discussion, no other invasive studies were taken.

Conclusion and Discussion: A Metastatic renal cancer with a synchronous gastric tumour was diagnosed. Patient was supported by palliative care. Incidence of gastric cancer with a second, synchronously presenting primary cancer, ranges between 2.0–10.9%, with synchronous detection of gastric and renal cancer being already reported in literature. Gastrointestinal symptoms are the most common manifestations in these patients.

PV671 / #227

A SYSTEMATIC REVIEW AND META-ANALYSIS ON THE EFFICACY AND SAFETY OF METFORMIN AS ADJUNCTIVE THERAPY AMONG WOMEN WITH BREAST CANCER

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Background and Aims: Breast cancer is the most common cancer among women worldwide including the Philippines, and is one of the leading causes of cancer-related mortalities. Metformin has been found to have direct and indirect anti-tumor mechanisms, and because of its availability and good safety profile, it has been investigated to be useful in various malignancies including breast cancer. This study aims to determine the efficacy and safety of administration of metformin as adjunctive therapy on mortality among females with breast cancer.

Methods: This is a systematic review and meta-analysis of randomized clinical trials (RCT's) on the use of metformin as adjunctive therapy when combined with standard chemotherapy on the outcomes of progression-free survival (PFS), overall survival (OS), overall response rate (ORR) and clinical benefit rate (CBR).

Results: Three Phase 2 RCT's metformin use as adjunctive therapy for locally advanced and metastatic breast cancer were included in this systematic review and meta-analysis. Clinical trials on early breast cancer are still ongoing. This study showed that metformin added to standard chemotherapy among women with metastatic breast cancer does not improve the PFS and OS based on the systematic review, and likewise has no impact on the ORR with a relative risk of 1.42 95% CI 0.45-4.55, and CBR with an RR of 0.87, 95% CI 0.55-1.37. It appears to be safe and may even be protective for the development of neutropenia based on at least one study.

Conclusions: This study shows there is insufficient evidence of benefit for metformin on survival among women with metastatic breast cancer.

PV672 / #264

EOSINOPHILIA AND NEPHROTIC SYNDROME IN AN ELDERLY PATIENT PRESENTING WITH SUDDEN RENAL IMPAIRMENT: A DIAGNOSTIC CHALLENGE

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Background and Aims: Amyloidosis is characterized by the deposition of insoluble fibrils in extracellular tissues. More than 30 different types of amyloidosis exist; the most common are

primary (AL), secondary (AA) or ATTR-related. Renal involvement is frequently seen. Herein we present a rare case of multiple myeloma-associated amyloidosis presenting with eosinophilia.

Case Description: A 89-year-old female with an unremarkable medical history presented with progressively worsening renal function and bilateral lower-extremity edema (non-responsive to furosemide) for the last two months. Physical examination was unremarkable.

Diagnostic Pathways: Laboratory tests revealed eosinophilia (4670 K/ μ l), normocytic anemia (Hct=35%, Hb=12.1 g/dl), GFR of 8 ml/min/1.72 m², low albumin levels (20.6 g/L) with severe renal protein loss (9.5 g/24h). The patient was treated with methylprednisolone 60 mg/d, anticoagulation therapy, human albumin 100 mg/d IV for 5 days, ACE inhibitor and statin. Serum and urine protein electrophoresis revealed a monoclonal band of IgA Kappa light chain. CT imaging was negative for bone lesions. Renal biopsy was not performed due to their small size. Abdominal fat biopsy was non-diagnostic. Bone marrow analysis showed plasmacytic infiltrate and Congo-Red positive depositions around the vessels. The patient's nT-pro BNP levels were elevated, while Troponin-T was low. Cardiac echocardiogram revealed grade I diastolic dysfunction without sparkling.

Conclusions: Although primary amyloidosis is a rare entity, in cases with a high suspicion index, including edema and sudden renal impairment, medical community should be alerted for its diagnosis, since prognosis is poor. Eosinophilia is a rare first manifestation of multiple myeloma. Small-sized kidneys in amyloidosis are also uncommon.

PV673 / #292

YOUNG MAN WITH ABNORMAL BLEEDING AFTER SURGERY

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Case Description: A 32-year-old male, with no relevant past medical history, was admitted after a L1 and L2 fracture, requiring surgery treatment. Following it, persistent discharge was observed from the surgical drains for the next 5 days.

Clinical Hypothesis: A blood test showed a prolonged prothrombin time, with normal partial time of thromboplastin and fibrinogen. The admission blood test was reviewed and the same alteration was found in it. The patient was asked again, who continued denying any personal or family history of spontaneous skin or mucous bleeding, persistent bleeding after major or minor surgery, or petechiae. During his hospital stay he had had no petechiae, bruising, or mucous bleeding.

Diagnostic Pathways: Extrinsic factor dosing was requested. It was found that the patient had 40% of factor VII (FVII), rated as a mild FVII deficit.

Conclusion and Discussion: FVII deficiency is the most common of the Rare Inherited Coagulation Disorders (RICD).

The inheritance is autosomal recessive but there is variable penetrance. Furthermore, there is poor correlation between the FVII level and the bleeding phenotype. With these parameters and clinical symptoms, a mild acquired FVII deficiency can't be confirmed in this case.

PV674 / #299

HELICOBACTER PYLORI NEGATIVE MALT LYMPHOMA

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Case Description: Female, 86-years-old, admitted with progressive fatigue for 1 month, associated with anorexia and weight-loss, with no visible blood-loss. At examination the patient had marked muco-cutaneous pallor. Analytically with severe anemia (hemoglobin 6.5 g/dL, mean corpuscular volume 69.1 fL, mean corpuscular hemoglobin 20.8 pg), and iron deficiency (iron 11 μ g/dL, ferritin 4.6 ng/mL, transferrin saturation 3%).

Clinical Hypothesis: Iron deficiency anemia, in resource-rich countries, is usually attributed to blood-loss, with the gastrointestinal tract commonly involved. We hypothesized that the most probable diagnosis would be a gastrointestinal neoplasm.

Diagnostic Pathways: Esophagogastroduodenoscopy identified a 5 cm, well delimited, ulcerated lesion in the greater curvature of the stomach, biopsies revealed a Hp-negative MALT-lymphoma, with no evidence of adenopathies or lesions in the computerized tomography scan. The patient refused blood transfusions for religious reasons and was treated with intravenous iron. She was referred to Hematology, and due to the patients age, frailty, dimension and expression of the lesion, treatment was started with Rituximab.

Conclusion and Discussion: MALT ("mucosa associated lymphoid tissue") lymphomas correspond to 8% of all non-Hodgkin lymphomas, and are considered indolent. They are more common in women over 60, frequently located in the stomach and 90% are associated with *Helicobacter pylori* (Hp) infection. When this infection is absent, pathogenesis remains unknown prognosis is worse because eradication leads to complete remission in 75% of cases. In the absence of infection, treatment options are limited, and although controversial, Hp eradication can be indicated. With this report we highlight an infrequent entity, where treatment options aren't as well established.

PV675 / #339

LEUKEMIA CUTIS AS MANIFESTATION OF ACUTE MYELOID LEUKEMIA

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Background and Aims: Leukemia cutis is the infiltration of neoplastic leukocytes or their precursors into the epidermis, the dermis, or the subcutis, resulting in clinically identifiable cutaneous lesions. It may precede, follow or occur simultaneously with the diagnosis of systemic leukemia.

Methods: We present the case of 72-year old male with no relevant past medical history admitted in the emergency department with a 2 month-long history of dyspnea, orthopnea and periorbital edema.

Results: Room air blood gas analysis was balanced. Laboratory evaluation showed severe anemia (Hb 3.2 gL⁻¹) and thrombocytopenia (PLT 122x10⁹L⁻¹), but the iron kinetics assessment was normal. The patient received a total of 4 blood transfusions, with a rise in Hb to 7 gL⁻¹. Peripheral blood smear was performed with 18% blast cells. Myelogram analysis confirmed the diagnosis of acute myeloid leukemia. The patient then noticed the appearance of several erythematous-violaceous papular lesions on his left arm, forearm and lower lip. At the time he had developed fever and an increase in inflammation laboratory parameters, so Sweet syndrome was suspected. Punch biopsy of the lesions was performed. Pathologic analysis of the sample revealed superficial and deep dermal infiltration by CD45+ cells with an inconclusive immunohistochemical profile, but no neutrophilic infiltration, favoring the diagnosis of leukemia cutis. Chemotherapy was started.

Conclusions: In acute myeloid leukemia cases, the diagnosis of leukemia cutis is strongly associated with additional sites of extramedullary involvement and it usually foreshadows a poor prognosis.

PV676 / #340

A RARE CASE OF PRIMARY AMYLOIDOSIS

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Background and Aims: Immunoglobulin light chain (AL) amyloidosis is a relatively rare disease and its diagnosis requires high clinical suspicion, since its clinical manifestations depend on the level of organ involvement.

Methods: We present the case of an 81-year old male, with known history of MGUS admitted in the emergency department with sudden onset dyspnoea.

Results: Pulmonary thromboembolism was excluded by CT angiography, which revealed a voluminous bilateral pleural effusion and exuberant calcifications of the pericardium, pleura, and several mediastinal lymph nodes. Further CT imaging revealed extensive widespread calcifications of multiple abdominal soft tissues, lymph nodes and of the abdominal wall. Protein electrophoresis had a monoclonal peak in the gamma band, ANA and Anti-Ro52 antibodies were positive. Abdominal adipose tissue biopsy was positive for amyloid protein with Congo red staining. Later, due to repeated pleural effusions and suspicion of a lymphoproliferative disorder, pleural and mesenteric lymph node conglomerate biopsies were performed, both positive for amyloid. Follow up Haematology consultation ruled out MGUS progression to multiple myeloma, favoring the diagnosis of primary amyloidosis AL. Palliative pleurodesis was performed. Considering the patient's age and previous functional status, no further treatment was initiated. The patient remains stable to this day, having had no reoccurring pleural effusions.

Conclusions: The diagnosis of primary amyloidosis is often overlooked, leading to its underdiagnosing. It should always be considered as differential diagnosis, especially in patients under surveillance for multiple myeloma and MGUS.

PV677 / #351

A CRYOGLOBULINEMIA VASCULITIS REVEALING MULTIPLE MYELOMA ASSOCIATED WITH PRIMARY SJÖGREN SYNDROME

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Background and Aims: Multiple myeloma is diagnosed in 6-10% of patients with cryoglobulinemia. Primary Sjögren's syndrome is rarely associated with Multiple myeloma.

Methods: We report the case of a patient presenting cutaneous symptoms revealing multiple myeloma and Primary Sjögren's syndrome.

Results: A 69-year-old man admitted for purpuric lesions associated with paresthesias of the lower limbs and fever (39°C) evolving since 10 days. Clinical examination showed red eyes, acrocyanosis, necrotic lesions of the toes and purpuric papules in the lower limbs. He had no meningeal syndrome or a heart murmur. The ophthalmologic examination found a keratoconjunctivitis Sicca complicated by superficial punctate keratitis. He had normochromic normocytic anemia, hypercalcemia and renal failure without coagulation disorder. The C-reactive protein was 71 mg/L. The serum protein electrophoresis detected M protein (IgG Kappa). Cryoglobulinemia was positive. Hepatitis C serology was negative. Autoimmune tests were normal. The cardiac

ultrasound was normal. The computed tomography showed bilateral pulmonary micronodules and osteolytic lesions of the vertebral bodies and pelvis. The bone marrow biopsy revealed 20% of plasma cells. The accessory salivary gland biopsy found Chisholm grade III lymphocytic sialadenitis. The diagnosis of multiple myeloma associated with Sjögren's syndrome was retained. The evolution was marked by the extension of necrotic purpura. Corticosteroid therapy at 1 mg/kg/day was initiated with a favorable outcome. The patient was referred to a hematology department.

Conclusions: Cutaneous vasculitis occurs in 6-30% of patients during primary Sjögren's syndrome and may witness the malignant transformation, the more so in association with cryoglobulinemia and the presence of M protein.

PV678 / #365

AN UNUSUAL PLEURAL EFFUSION

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Case Description: A 77-year-old woman with history of mucoepidermoid carcinoma of the right lacrimal gland, who has already undergone a exenteration of the right orbit, followed by chemotherapy and local radiotherapy, awaiting re-staging. She went to the emergency department for dyspnea and orthopnea with two weeks of evolution. On chest-ray a bilateral chest pleural effusion was identified associated with type 1 respiratory insufficiency. A decompensated heart failure was admitted and the patient was hospitalized. A few days later, the patient did not show any signs of clinical improvement, and in imaging reassessment, large volume bilateral pleural effusion was maintained. Thus, diagnostic thoracentesis was performed, the fluid of which revealed to be exudate and in cytological examination, evidence of metastatic cells of mucoepidermoid carcinoma of the lacrimal gland. After multidisciplinary decision it was proposed a palliative chemotherapy treatment, which the patient refused. One month later she died.

Clinical Hypothesis: Heart failure was the diagnosis initially thought. However, due the lack of therapeutic response, other hypotheses such as neoplasms, inflammatory diseases and infections were thought. Taking into account the patient's history, the most likely would be the neoplasia.

Diagnostic Pathways: Medical history, physical examination, laboratory and imaging study and anatomopathology study.

Conclusions: With this case, we intend to alert the importance of the characterization/approach of pleural effusions for a clinical clarification. In addition, it should be noted that although rare, there is a possibility of metastasis of the mucoepidermoid carcinoma from the lacrimal gland to the pleura, and a timely diagnosis is essential.

PV679 / #446

A CASE OF PSEUDOHIPERKALAEMIA SECONDARY TO THROMBOCYTOSIS

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Background and Aims: Thrombocytosis is a cause of pseudohyperkalaemia and can be associated to either reactive processes, more common, or autonomous ones, frequently clonal. Essential thrombocythemia occurs in 2.5 cases/1000.000/year, approximately 90% with somatically acquired mutation in JAK2, CALR, or MPL.

Methods: Case Report

Results: 61-year-old woman, history of arterial hypertension, ischemic stroke, acute myocardial infarction, hyperuricemia and hepatic steatosis. Medicated with furosemide, atorvastatin, gabapentin, enalapril, bisoprolol, ticagrelor and acetylsalicylic acid. Orientated to internal medicine appointment for hyperkalaemia and thrombocytosis of unknown origin, with 5.3 mEq/L potassium and $974 \times 10^3/\mu\text{L}$ platelets (previous values of 389 and $588 \times 10^3/\mu\text{L}$). Recent history of acute cystitis, medicated with fosfomicin. On admission, complaints of self-limited epistaxis, no thrombotic symptoms, with normal physical examination, no splenomegaly, no evidence of infection. Analytically, 18.83 g/dl haemoglobin; $6.4 \times 10^3/\mu\text{L}$ leukocytes, $854 \times 10^3/\mu\text{L}$ platelets, 7 mm/1^h VS; 6.4 mEq/L potassium, 10.9 mg/dl uric acid; 57 ng/ml ferritin; and CRP <0.05 mg/dl. Peripheral blood smear with thrombocytosis, without morphological changes or myeloid precursors. Genetic studies detected the V617F mutation in JAK2 gene. Patient initiated treatment with hydroxyurea, suspended after development of pancytopenia. Currently, hemogram and platelet count are normal. No treatment was reinitiated, and patient maintains follow-up visits in Haematology. No haemorrhagic or thrombotic events occurred.

Conclusions: Up to one-half of patients with essential thrombocytosis are discovered incidentally. There is no curative treatment for this pathology, being the management goal to prevent thrombotic and haemorrhagic complications and to alleviate symptoms. Hydroxyurea can be used as a cytoreductive agent. It can lead to bone marrow suppression, less commonly with thrombocytopenia and anaemia.

PV680 / #503

LIGHT CHAIN MYELOMA AND AMYLOIDOSIS – A FATAL PARTNERSHIP

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Background and Aims: Heart failure is a common syndrome in the elderly. Although it is often associated with cardiovascular

risk factors and events, sometimes other contexts need to be considered like infiltrative diseases (Mosterd & Hoes, 2007).

Methods: A 75-year-old men, with arterial hypertension, dyslipidaemia and prostatic adenocarcinoma subjected to radical surgery, with multiple visits to the emergency department with symptoms of acute heart failure in the last 2 months, came back with dyspnoea, abdominal pain, anorexia and weight loss. He had low blood pressure (85/54 mmHg), decreased breath sounds in the lower thirds of the lungs with associated crackles and oedema in the lower limbs. Analytically, he had 24,376 pg/mL of NT-proBNP, 1.7 mg/dL of creatinine and 122 mg/dL of urea. Abdominal pelvic tomography showed liver and splenic infarction areas and in chest sections showed pleural and pericardial effusion. He was admitted for further investigation.

Results: A Lambda light-chains monoclonal peak was found as well as an increase in these chains in serum and urine. Cardiac magnetic resonance imaging was compatible with infiltrative cardiomyopathy. Bone marrow biopsy had 35% of plasma cells which was compatible with multiple myeloma. The diagnostic of light-chain multiple myeloma and amyloidosis AL was assumed.

Conclusions: In amyloid light-chain amyloidosis, the prognosis is dictated by the extent of cardiac involvement and the amount of circulating light-chains. The multiple myeloma treatment and consequent decrease in monoclonal proteins is essential to halt the progression of the disease.

PV681 / #505

ANEMIA SECONDARY TO ALLOPURINOL - A RARE ADVERSE EFFECT

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Background and Aims: Allopurinol is a xanthine oxidase inhibitor used to treat hyperuricemia. Megaloblastic and hemolytic anemia are frequent adverse effects but normocytic normochromic (NN) hypoproliferative anemia is rare.

Methods: A 86-year-old woman with hyperuricemia on allopurinol was admitted with asthenia. The physical examination was unremarkable except for mucocutaneous pallor.

Results: Blood tests revealed hemoglobin of 5.4 g/dL, normal MCV (96.6 fL) and MHCH (35.3 g/dL), low adjusted percentage of reticulocytes (0.09%) and normal leukogram, platelets, peripheral blood smear and chemistry. A blood transfusion was performed. Further investigations revealed no toxins exposure or hemolysis and no vitamin or iron deficiencies. Neoproliferative process and infection were not detected after thoracoabdominopelvic computed tomography; HIV, HAV, HBV, HCV, EBV, CMV serology; B19 parvovirus serology and blood DNA detection. There was no clinical and laboratory evidence of autoimmune disease. The myelogram revealed around 6% of proerythroblasts, without dysplasia or changes in other lineages. Allopurinol was discontinued with subsequent resolution of the anemia (12 g/dL of

hemoglobin and 1% of reticulocytes after 3 months) and without further transfusion support.

Conclusions: The authors alert about a rare association between allopurinol use and severe anemia. In this case, we hypothesized that allopurinol caused pure erythroid aplasia, a disorder that consists of NN anemia with <1% of peripheral blood reticulocytes and <5% of bone marrow proerythroblasts. The last criterion was not met, which can be explained by performing the myelogram later in the phase of marrow recovery.

PV682 / #506

EVANS SYNDROME: A DIAGNOSIS OF EXCLUSION

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Background and Aims: Evans syndrome is a rare autoimmune disease characterized by autoimmune hemolytic anemia and immune thrombocytopenic purpura. It is classified as primary/idiopathic or secondary to autoimmune diseases, primary immunodeficiencies, infection or lymphoproliferative syndromes. Since prognosis and treatment are different, their distinction is essential.

Methods: A 70 years-old female patient with hypertension, dyslipidemia, and overweight, was referred to the emergency department by primary care due to severe thrombocytopenia detected in routine blood analysis. The patient claimed to have 2 years old gingivorrhagia and asthenia for 3 months before. She denied toxins and chemicals' exposure, contact with animals or recent vaccines.

Results: The patient was hemodynamically well, revealing no changes in physical examination. Blood analysis showed anemia (hemoglobin 8.7 g/dL) and low platelets (6,000/uL). In internal Medicine department, blood analysis revealed hemolytic parameters (increased lactate dehydrogenase, increased bilirubin and reticulocytosis) and positive direct anti-human globulin test (DAT) – antibodies against erythrocytes at 37°C. No dysmorphic erythrocytes were found in the blood smear. Viral serologies and immunological studies were negative. Digestive endoscopies and abdominal ultrasound did not reveal acute changes. Due to the strong suspicion of primary Evans Syndrome, Prednisolone 1 mg/kg/day was started with a consequent recovery of hemoglobin to 11.5 g/dL and platelets to 104,000/uL. Subsequently, a medullary study was performed with no evidence of disease.

Conclusions: This case report aims to highlight the importance of diagnosing a rare disease that leads to spontaneous remissions and exacerbations throughout life, which might be fatal.

PV684 / #519

WHEN A DENTISTRY CHECK-UP TURNS INTO AN INTERNAL MEDICINE APPOINTMENT: RARE CASE OF MANDIBULAR PLASMOCYTOMA

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Background and Aims: Plasma cell neoplasm's include: Medullary Plasmacytomas, Extramedullary Plasmacytomas and component of Multiple Myeloma. Plasmacytomas are localized proliferations of plasma cells on unknown etiology, with a destructive course with preponderance of males. The lesions present a risk of progression to multiple myeloma. Its presence in jaws is extremely rare and when seen, mandible's angulus and ramus are the most common locations.

Methods: Description of a clinical case

Results: Female, 48 years old, Caucasian. Sent to the ER, through her dentist due to abnormal orthopantomography and mandibular pain. She complained of pain in her jaw that assumed was due to bad oral hygiene. She is an active smoker (30 pack-year), no other medical/personal history. The diagnosis workup included a complete maxillofacial CT scan that showed a rounded lesion near mandibular angle with confluent smaller lesions, without mass effect. Mandibular lesion biopsy, bone marrow biopsy and blood tests were performed. The patient was sent home with analgesics, and an internal medicine appointment in two weeks. The blood tests were normal. Serum immunoelectrophoresis was also normal. Bone marrow analysis showed no alteration and there were no other lesions on the axial skeleton X-ray. Lesion biopsy showed well differentiated plasmatic cells proliferation (CD138+, CKAE1/AE3-). In the presence of a plasmacytoma, the patient started the follow-up with an hematologist and was referred for treatment.

Conclusions: Bone plasmacytomas rarely occur in maxillofacial areas, this patient was referred for radiation therapy and chemotherapy, with the aim to avoid surgery due to the big dimensions of the lesion. Continuous follow-up is imperative.

PV685 / #528

UNEXPECTED PROGRESSION TO SUPERIOR VENA CAVA SYNDROME – A TRAGIC OUTCOME

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Background and Aims: Superior vena cava syndrome (SVC) occurs due to extrinsic or intrinsic obstruction of the same. Etiologies include malignant (65-85% - lung neoplasia, breast neoplasia,

lymphoma) and benign causes - multinodular thyroid goiter, aortic aneurysms, tuberculosis and thrombosis secondary to devices.

Methods: Case Report.

Results: Female, 70 yrs. Previously admitted in a private hospital for gastrointestinal bleeding investigation. Due to an acute confusional syndrome, the patient was transferred to our emergency department. She presented with a slight dysarthria and no other focal deficits. CT cranial scan showed an ischaemic stroke in middle cerebral artery territory. Colonoscopy revealed spots of previous bleeding but no active lesions. Complementary study was performed with thoracoabdominal CT scan that showed the presence of pulmonary embolism and a volumous mediastinic mass which invaded the SVC. She started hypocoagulation with initial improvement. Due to a new heart murmur she performed an echocardiogram that showed an infiltrative tricuspid valve lesion. Although we suspected marantic endocarditis, she started empirical antibiotic therapy. PET scan highlighted a mediastinum mass and a previously unknown lung mass. Transthoracic biopsy established the diagnosis of end-stage lung adenocarcinoma (T4N3M1). The patient experienced a progressive deterioration of her clinical condition with development of facial edema and exuberant collateral vascularization (SVC Syndrome). She performed palliative radiotherapy but died shortly after.

Conclusions: This case highlights life-threatening manifestations of SVC syndrome which often require emergency intervention. It was a challenging diagnosis, with many confounding factors and rapid symptom progression that ended with a fatal outcome.

PV686 / #539

HEREDITARY SPHEROCYTOSIS: A DIAGNOSTIC CHALLENGE

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Case Report: A 20 years old female was referred to an Internal Medicine by her primary care physician due to hyperbilirubinemia and jaundice. There was a history of isoniazid treatment – her mother was diagnosed with tuberculosis. After the initial evaluation, it was evident that the hyperbilirubinemia was present for at least 9 years. On the physical examination, a massive splenomegaly was detected. There was an abdominal ultrasound showing vesicular lithiasis. The family history for hematological diseases was negative. About 1 month later, the patient was admitted to the General Surgery with a clinical picture compatible with biliary colic, being transferred to the Internal Medicine ward for etiological investigation.

Clinical Hypothesis: It was evident that a chronic hemolytic process was in course. An extensive study for causes of hemolytic anemia was started.

Diagnostic Pathways: The blood tests revealed a mild anaemia, a raised DHL and a low haptoglobin. The peripheral blood smear revealed multiple spherocytes, and the hypothesis of Hereditary

Spherocytosis (HS) was suggested. A flow cytometric analysis of eosin-5'-maleimide-labeled intact red blood cells confirmed the diagnosis of HS.

Conclusion and Discussion: Massive splenomegaly appears in a limited number of situations. When associated with hemolysis, hemolytic anemias secondary to corpuscular defects, namely HS, should be considered. If the family history is negative, it is necessary to consider the occurrence of de novo mutation or autosomal recessive trait (associated with more severe forms).

PV687 / #564

METHOTREXATE-INDUCED MYELODYSPLASTIC SYNDROME

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Case Description: A 75 year-old woman with sinus node disease waiting for a pacemaker implantation and rheumatoid arthritis under corticotherapy and methotrexate, presented to the emergency department after a sudden episode of chest pain and presyncope. De novo atrial fibrillation with rapid ventricular response was detected. Laboratory tests revealed pancytopenia (white blood cell count of 1,050/ μ L (with 19.5% neutrophils, 0.2% eosinophils, 0.1% basophils, 78.6% lymphocytes and 1.6% monocytes); hemoglobin of 9.4 g/dL; platelet count of 106,000/ μ L), which wasn't present six months before.

Clinical Hypothesis: Bradycardia-tachycardia syndrome; Pancytopenia of unknown etiology.

Diagnostic Pathways: The patient was admitted to the Internal Medicine ward, where etiologic investigation of the pancytopenia was performed. Methotrexate was interrupted. Viral serologies were negative. Medullar biopsy and bone marrow aspiration led to the most likely diagnosis of myelodysplastic syndrome with excess blasts type 1 (MSD-E1), assumed secondary to methotrexate. Six months later pancytopenia was still unresolved; bone marrow aspiration was repeated, with persistent alterations compatible with MSD-E1. 5-Azacytidine was initiated.

Conclusion and Discussion: Methotrexate is widely used in the treatment of autoimmune disorders, but it has the potential to inhibit cellular proliferation.^[1] It may cause myelosuppression, which is mostly transient and ceases after its suspension. Rarely can it induce an irreversible myelosuppression, as described in this clinical case.^[2]

^[1]Gonzalez-Ibarra F, Eivaz-Mohammadi S, Surapaneni S, et al. Methotrexate Induced Pancytopenia. *Case Reports in Rheumatology* 2014 DOI:10.1155/2014/679580.

^[2]Expósito Pérez L, Bethencourt Baute JJ, Bustabad Reyes S. Severe secondary bone marrow aplasia due to methotrexate in a patient with late onset rheumatoid arthritis. *Reumatol Clin (English edition)* 2014;10:344-345.

PV688 / #584

CUTANEOUS VASCULITIS AS A SERIOUS SIDE EFFECT OF BRAF/MEK INHIBITION THERAPY FOR MELANOMA

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Background and Aims: The incidence of cutaneous melanoma has been rising in the last decades. BRAF/MEK inhibitors have showed to prolong survival in patients with BRAF mutated melanoma. Various adverse events have been reported, especially with cutaneous involvement, which are usually not severe and easy to manage, and severe cutaneous toxicity is rare.

Methods: We present the case of a patient with severe skin toxicity that led to the definite suspension of BRAF/MEK inhibitors.

Results: Female patient, 86 years old, with an ECOG performance status 1, was diagnosed with dorsal melanoma, stage IIB, in November 2019, initially treated with resection. In June 2020, relapse occurred as dorsal subcutaneous nodes. She underwent palliative radiotherapy and begun systemic treatment with BRAF/MEK inhibitors dabrafenib and trametinib. After 10 days of treatment, multiple macular and purpuric lesions appeared, specially in the limbs, that rapidly evolved to massive blisters and ulceration. The patient simultaneously developed worsening of general state and higher level of dependence. At admission, she presented hemodynamic instability, that reversed with vigorous hydration. She was evaluated by Dermatology and Internal Medicine, and a diagnosis of leukoclastic vasculitis was established. She began systemic steroid therapy 1 mg/kg daily, which led to clinical improvement. Due to this serious side effect, BRAF/MEK inhibitors were not reinitiated and best supportive care was offered. Of note, the dorsal metastatic lesions resolved after only 10 days of treatment.

Conclusions: Leukoclastic vasculitis is a severe rare side effect of BRAF/MEK inhibitors. Early diagnosis and treatment are essential for effective therapeutic action.

PV689 / #617

OVARIAN ADENOCARCINOMA: ADVANTAGEOUSNESS OF A MULTIDISCIPLINARY APPROACH - A CLINICAL CASE

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Background and Aims: Despite the improvement in survival figures, ovarian adenocarcinoma remains the most lethal gynaecological cancer. The histological type and the FIGO stage are the main determinants of clinical outcome and it is essential

to know the staging criteria in order to offer adequate and early treatment.

Methods: Case report based on hospital clinical process consult.

Results: A 60-year-old woman went to the ER for abdominal pain, anorexia, vomiting and constipation. Objective examination shown distended abdomen and painful with no changes in the abdominal radiography. Analytically study showed normochromic normocytic anemia and CRP of 7.1 mg/dL, without leukocytosis and with no changes on liver function tests. An abdominal-pelvic CT scan showed an exuberant ascites and peritoneal carcinomatosis. She underwent paracentesis with cytological study of ascitic fluid revealing adenocarcinoma suggestive of ovarian origin. This result was associated with very high CA 125 (1940 U/mL), which allowed the diagnosis to be confirmed. After discussion with oncology specialists, the patient started chemotherapy (QT) with paclitaxel + carboplatin 21/21 days, showing excellent response. A control pelvic MRI was performed 5 months later and no signs of ascites or carcinomatosis were detected and presently, approximately 1 year after diagnosis, the patient maintains QT with ECOG 0.

Conclusions: Nearly 70% of CO are diagnosed in advanced stages. The complexity of subclassification and its effect on the delay of treatment choice emphasize the importance of multidisciplinary approach to each case. This case highlights the importance of a correct staging and a multidisciplinary approach.

PV690 / #619

NONSPECIFIC METASTATIC BREAST CANCER PRESENTATION: A CASE REPORT

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Introduction: With more than 1.6 million new cases worldwide, breast cancer (BC) is the most common malignance among female gender. Despite the good prognosis in cases with early diagnosis, BC is the second leading cause of cancer-related death in women.

Methods: Not applicable.

Case description: A 48 years old female patient, smoker, with pre-diabetes and dyslipidemia went to emergency department due to fullness and abdominal distention with two months of evolution. In the last two weeks she presented postprandial vomiting associated to a 3 kg weight loss. The analytical study showed cholestasis and hyperbilirubinemia. Abdominal ultrasound found hepatomegaly and multiple hepatic nodules. The patient was hospitalized for liver abnormalities study. Abdominal CT angiography revealed multiple hypodense nodular lesions; a nodular image was observed on the left breast and lytic lesions in the L3 and D11 vertebral bodies. A liver biopsy and a study of primary BC with breast ultrasound and mammography were performed. The presence of a breast nodule (BIRADS 4) was confirmed and it was biopsied. The anatomopathological results of these biopsies were compatible with BC and hepatic metastases.

The patient was referred to the oncology group consultation.

Discussion: BC is very common and although it is traceable it is sometimes diagnosed in advanced stages. The most frequent metastatic sites are the bone, liver, and lungs. In advanced stages, symptoms could reflect any of the organs involved. With this case, the authors intended to draw attention to the matter that, regardless of BC screening programs, advanced BC shouldn't be forgotten.

PV691 / #635

BE AWARE OF HEMOPHAGOCYTIC SYNDROME – A SUSPICIOUS CLINICAL CASE

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Case description: 54-year-old woman, hypertension, presented with dyspnoea, vomiting and nausea within 15 days. Ultrasound showed hepatic formations, 10-15 mm, compatible with metastasis. Chest, abdominal- pelvic CT displayed nodular lesion (19 mm) in the right lung and other suspicious lesions. Liver dimensions in the upper limit, with same lesions. She was admitted for malignancy staging and study. An additional right retro-orbital lesion was present. CEA, CA 19.9 and CA 125 were elevated. From 5th day, started recurrent fever, increasing inflammatory parameters; Chest X ray, Abdominal CT, microbiological cultures and autoimmune markers were negative. No response to antibiotics. During this, began an acute confusional state. Cerebral CT, without lesions. Lumbar puncture negative. Analytically: anaemia, thrombocytopenia, de novo. Procalcitonin 271 ng/dl.

Clinical Hypothesis: Considering persistent fever, clinical and analytical findings, hemophagocytic syndrome (HFS) was suspected.

Diagnostic Pathways: The author looked for other laboratorial findings: hyperferritinemia (4301,57 ng/MI), hypertriglyceridemia (288 mg/Dl), hypofibrinogenemia (199 mg/dl), mixed hyperbilirubinemia and AST elevation (197 U/L). Concerning criteria for HFS, patient filled 4 in 8 (5 in 8 are required) but, additional presence of jaundice, AST elevation, low HDL cholesterol, hypoproteinemia, cerebromeningeal symptoms and a HFS probability score of 208, with 88-93% probability, strengthened diagnosis.

Conclusion and Discussion: Considering all, the HFS was probably secondary to infection, of unknown origin without no response even to broad spectrum antibiotic. Patient died before finished haematological study. Lung biopsy showed adenocarcinoma. HFS, life-threatening hyperinflammatory disorder caused by an excessive immune activation, may be primary (genetic) or secondary (infections, malignancies, autoimmune diseases). We present a suspected HFS, secondary to unknown infection in a patient with metastatic malignancy.

PV692 / #643

DIVERSITY IS QUALITY

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Background and Aims: Hemolytic anemia is a pathology in which red blood cell destruction occurs. It can have several causes (congenital and acquired) and clinical presentations. Its severity is all the greater the greater the degree of hemolysis. Treatment depends on the underlying cause of hemolysis.

Methods: 22-year-old male patient, obese, with poor diet, entered the ER after developing dizziness and fatigue over 2 weeks, associated with vomiting, epigastric pain and choluria. On objective examination, he was polyneic, tachycardic, with pale skin and jaundiced sclerotic. Analytically with macrocytic anemia (Hb 6, VGM 109 and HGM 35.9), very increased bilirubins and LDH and deficiency of vitamin B12 and folic acid. The patient underwent blood transfusion with poor performance and was therefore hospitalized for etiological study.

Results: During hospitalization, he started systemic corticotherapy and vitamin replacement. Serologies, autoimmune markers and Coombs test were undertaken, with negative results and for which corticotherapy was progressively removed. The Abdominal CT scan did not reveal any relevant findings, whereas the endoscopy (due to epigastric pain) revealed esophageal candidiasis. Therapy with fluconazole commenced, with improvement. During hospitalization, there was also a progressive improvement in hemoglobin levels and symptoms, hence anemia was attributed to nutritional deficiencies due to poor eating habits. On discharge, the patient was referred for nutrition consultation.

Conclusions: The presentation of this clinical case is intended to alert to the importance of healthy eating and failure to do so may lead to serious pathologies. It is therefore imperative to promote them in order to prevent these conditions.

PV693 / #767

THE DIAGNOSTIC SIGNIFICANCE OF DETERMINING THE INTERLEUKIN-1-BETA SERUM LEVEL IN PATIENTS WITH SOLID TUMORS AS AN ADDITIONAL MARKER OF DISEASE PROGRESSION

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Background and Aims: Some studies showed the correlation of interleukin-1-beta (IL-1 β) overexpression in tumor tissues or it's increased serum levels with the presence of metastases, poor prognosis or failure of cytostatic therapy in patients with different

cancers. The aim of this research is to study the relationship between the IL-1 β serum level in patients with solid tumors and clinical signs of disease progression.

Methods: The study involved 111 patients with various solid tumors, clinical signs of progression were: an increase in the primary focus, the appearance of new foci, decreased ECOG status. The determination of the IL-1 β serum level was performed using the ELISA method. The project is supported by grant (contract N^o20-015-0049820).

Results: Among the examined patients 19.82% (22/111) had an ECOG status more than 2. Brain metastases were diagnosed in 13.51% (15/111), metastases in ≥ 3 distant organs - in 25.23% (28/111). The average IL-1 β serum level was 1.99 \pm 0.55 pg/ml. An increased level of IL-1 β was found in 2.70% (3/111) of patients, while in 37.84% (42/111) cytokine was not detected. The relationship between the IL-1 β concentration and the number of metastases, the presence of brain metastases, the ECOG status was not found.

Conclusions: Our study showed that the IL-1 β serum level is not correlated with the clinical characteristics of disease progression and corresponds to the normal range. Probably, the results were influenced by long-term previous treatment or local effect of cytokine. It can be considered that the determination of IL-1 β serum level has no diagnostic value.

PV694 / #819

LIGHTNING STRIKES TWICE: HEPATIC LYMPHOMA BRINGS A RARE SYNDROME

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Background and Aims: Primary hepatic lymphoma (PHL) is a rare malignancy (0.016% of all non-Hodgkin's lymphomas) and Lei, K. describes it as a lymphoma with liver involvement, with no involvement of lymphadenopathy or spleen and absence of leukemic blood involvement. Paraneoplastic neurologic syndromes are rare (<1%) and even rarer when linked with lymphomas.

Methods: An 85-year-old man with history of ischemic cardiopathy, hypertension and chronic renal disease, referred weight loss, fatigue and right thoracic pain and denied other symptoms. Analysis: haemoglobin 13 g/dL, normal leukocytes, platelets and peripheral blood smear, CRP 2.56 mg/dL, no hypercalcemia, alkaline phosphatase 133 UI/L, gama-glutamyl transferase 197 UI/L and lactic deshydrogenase 1163 UI/L. Alpha-fetoprotein and CEA normal. Thoraco-abdominal-pelvic CT uncovered multiple hepatic lesions and excluded involvement of spleen, lymphadenopathies, bone or other organs.

Results: Considering hypothesis of occult neoplasm went on colonoscopy and upper endoscopy which were normal. A hepatic biopsy guided by ultrasound was made and revealed a high-grade B

cell lymphoma (atypical cells CD20+, CD3+, Ki67 >95%). PHL was diagnosed. A month later he complained of gait imbalance and on neurologic examination stands our four limb ataxia. MRI showed left focal cerebellar encephaloclastic lesion with marginal gliosis and focal cortical bilateral cerebellar atrophy. Lumbar puncture: hyperproteinaemia, normoglycemia, <5 cells/uL, immunofixation revealed bands also present in serum. Anti-Purkinje cells (PCA-1)/Yo antibodies presented in serum and cerebrospinal fluid. The diagnosis of paraneoplastic cerebellar degeneration was assumed. **Conclusions:** PHL is very rarely described, even more when the patient is also diagnosed with paraneoplastic cerebellar degeneration associated with non-Hodgkin lymphoma hence our surprise and will to report this case.

PV696 / #846

OSTEOLYTIC LESIONS OF THE SKULL CAP

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Background and Aims: We report the case of a caucasian 71 years-old female, who presented to the emergency room due to fall with traumatic brain injury, initially observed by general surgery that requested an x-ray to the skull, which revealed multiple lytic injuries in the skull cap (*Figure #846*). With this finding, the patient was admitted in the Internal Medicine service in order to study these lesions.

Methods: On the physical examination the patient presented skin and mucous paleness, as well as a nodule on the upper exterior quadrant of the right breast, irregular, with poorly defined edges with approximately 5x3 cm dimensions and a palpable ipsilateral axillary adenopathy. Under these findings, the patient did an abdominal-pelvic-thorax computerised tomography, which revealed diffuse involvement of the whole skeleton covered by mixed type injuries with suspicion of neoplasia and prove the nodule detected on the physical exam.

Results: Given the suspicion of breast tumour with bone metastasis, the patient was forwarded for a breast biopsy



#846 Figure

conducted by an echography, which confirmed the presence of invasive carcinoma. The patient began hormonotherapy with letrozol choosing palliative measures.

Conclusions: The bone is one of the most common metastasis areas. Osteolytic injuries of the skeleton are present on patients with multiple myeloma and other solid tumours such as breast and lung. Considering this, the evaluation of a patient with bone metastasis becomes a challenge. This clinical case pretends to highlight the importance of conducting a physical exam, which is the key in the diagnostic orientation, allowing to anticipate the final diagnostic.

PV698 / #903

GASTRIC METASTASIS FROM LUNG ADENOCARCINOMA – A RARE PRESENTATION

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Case Description: This case describes a 71-year-old patient with a right lower lobe lung adenocarcinoma in a stage IIIC, already treated with chemo and radiotherapy apparently with a good response. He came to the emergency room with an uncontrolled abdominal pain, where he did an abdominal CT-scan that showed peritoneal carcinomatosis and an infiltrating lesion in the stomach.

Clinical Hypothesis: Gastrointestinal metastasis, especially gastric, from a primary lung cancer constitute a rare event (0.5-10%) that usually occurs at advanced stages of the disease. They are usually asymptomatic, but the most common clinical presentation is abdominal pain. The fact that gastric metastasis grossly resemble advanced gastric cancer difficult the diagnose, especially when the primary lung cancer is an adenocarcinoma.

Diagnostic Pathways: This patient underwent an esophagogastroduodenoscopy and gastric biopsy, that showed a metastatic adenocarcinoma of the lung, revealing a late-stage disease, particularly associated with diffuse hematogenous tumor spread.

Conclusions: Gastric metastasis from a primary lung cancer constitute a rare occurrence, especially on lung adenocarcinomas, thus it may be difficult to distinguish them from gastric carcinomas. Despite the rare finding, clinicians should be aware on the gastric metastasis possibility in patients with primary lung adenocarcinoma.

PV699 / #911

ACQUIRED HEMOPHILIA A

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Case Description: An 89 years-old male was admitted in emergency department after an episode of lipothymia. An history of spontaneous ecchymoses and hematuria was described. At physical examination, a subcutaneous hematoma on the left leg was found. Initial laboratory tests revealed normochromic, normocytic anemia and prolonged activated partial thromboplastin time (APTT).

Clinical Hypothesis: The hypothesis of a coagulation disorder involving the intrinsic pathway of coagulation cascade was raised. Considering the bleeding phenotype, acquired hemophilia A (AHA) was the most probable.

Diagnostic Pathways: APTT mixing study revealed incomplete correction, suggesting the presence of an inhibitor. FVIII activity was significantly decreased. Bethesda assay detected a high titer of FVIII inhibitors, confirming AHA.

Conclusion and Discussion: Immunosuppressive therapy (IST) to achieve autoantibody eradication was initiated with prednisolone (1 mg/kg/day). Treatment with coagulation bypassing agents was not accomplished because there were no signs of active bleeding. Three days after admission, hemoglobin levels decreased. A thoraco-abdomino-pelvic CT demonstrated a lumbar, probably hematic, subcutaneous densification. RBC transfusion was administered. Five days after admission, the patient presented obtundation, hypotension and tachycardia progressing to cardiorespiratory arrest and death. AHA is a rare disorder, frequently related to autoimmune disorders or malignancy, with high mortality, that should be considered when a hemorrhagic event is accompanied by an unexplained prolonged APTT. Control of acute bleeding is a priority. IST is recommended to achieve remission of AHA but should be individualized considering AHA prognostic markers and risk of adverse effects. Delay in diagnosis and appropriate treatment initiation contributes to further increase mortality.

PV700 / #924

CASTLEMAN'S DISEASE - A CASE REPORT

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Background and Aims: Castleman's disease (CD) is a rare lymphoproliferative disease that occurs in individuals of all ages. It presents 3 different categories according to the number of regions affected by the histopathological characteristics of choice and the presence or absence of Human Herpes Virus 8, also

associated with Kaposi's Sarcoma. Its multicentric form is often associated with HIV infection, a fact that adds complexity to the differential diagnosis.

Case report: 35-year-old man, recently diagnosed with HIV, with persistent fever, night sweating, weight loss, painless bilateral cervical, axillary and inguinal conglomerates, hepatosplenomegaly and edema of lower limbs with 1 month of evolution.

Results: Study started to exclude opportunistic, oncological and autoimmune infectious diseases: Hb of 3 gr/dl/GMV 67.6 fL/HGM 22.0 pg/V5140 mm/CD4 112 cel/uL/viral load 399,800 cp/mL/Fe 37ug/dL; protein electrophoresis "wide base range gamma" hypoalbuminemia 1.72; urea 48 mg/dl creat 2.2 mg/dl. TTE, XR Chest normal; Abdominal CT: Homogeneous hepatomegaly and splenomegaly and multiple intra-abdominal adenopathies; myelogram and bone marrow unchanged, EGD: Esophageal candidiasis and lesions suggestive of Kaposi that have been confirmed by Histopathology. However, an excisional ganglion biopsy would later make the diagnosis of CD, HVH8 positive, with hyaline-vascular and plasma cells.

Conclusions: This case reinforces the need to include CD in the differential diagnosis of HIV-positive patients with generalized lymphadenopathies and highlights the importance of excisional biopsy whenever possible. The correct diagnosis of this pathology, its classification and the identification of associated diseases have therapeutic and prognostic implications.

PV701 / #960

RENAL CELL CARCINOMA DIAGNOSED BY BONE BIOPSY: 2 CLINICAL CASES

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Case Description: *Case 1:* 79-year-old man with atrial fibrillation, dementia, prostate cancer 7 years ago, hypertension and chronic kidney disease is admitted due to asymmetrical oedema and tenderness of right lower limb, compatible with phlebothrombosis. *Case 2:* 43-year-old man tobacco smoker is admitted due to low back pain irradiating to left lower limb with functional limitation; he brought a lumbar spine CT with a large sacral osteolytic lesion with partial S1/S2 involvement.

Clinical Hypothesis: Despite being two quite different presentations in two very different patients, a thrombotic event in an older man and osteolytic lesions in a young man both demand investigation of an occult neoplasm.

Diagnostic Pathways: *Case 1:* Abdominopelvic-CT revealed a large osteolytic lesion involving right iliac bone with a significant soft tissue involvement; bone scintigraphy showed additional left humerus head lesion. *Case 2:* Thoraco-abdominopelvic-CT highlighted suspect right kidney nodule, besides diffuse bone metastazation confirmed by scintigraphy (sacrum, left humerus and a left costal arch). CT-guided iliac bone biopsy confirmed renal cell carcinoma in both cases, so they were referred to Oncology consult.

Conclusion and Discussion: About one third of all patients with advanced renal cell carcinoma have bone metastasis, and this is a poor prognosis factor. However, only 6.3% of bone metastasis are caused by kidney tumours. We presented two cases of renal cell carcinoma that presented with bone metastasis, pointing the importance of metastatic lesions biopsy especially in cases of occult tumors or when the suspect primary tumor is too small or easily accessible to be biopsied.

PV702 / #969

THE HOURGLASS MASS: A BOUNDARY BREAKING NEOPLASY

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| Hospital Beatriz Ângelo, Internal Medicine, Loures, Portugal

Background and Aims: A 71-year-old woman with history of hypertension, hyperthyroidism and dyslipidaemia was admitted to the hospital complaining of weight loss, fatigue, nausea, and vomiting. Blood analysis revealed microcytic anaemia (haemoglobin 8.6 g/dL), slight elevation of Protein-C reaction, with no other relevant alterations. Thoracic radiography revealed a rounded mass with well-defined borders and an homogeneous appearance that apparently cross the diaphragm and no other alterations regarding pulmonary parenchyma, costophrenic angle or mediastinum.

Methods: The identification of masses that cross the diaphragm leads to consideration of overlapping structures/fake images and consideration of benign and malign aetiologies. We should consider hiatal or traumatic hernias, as the most common aetiologies. The less common are the neoplastic lesions which

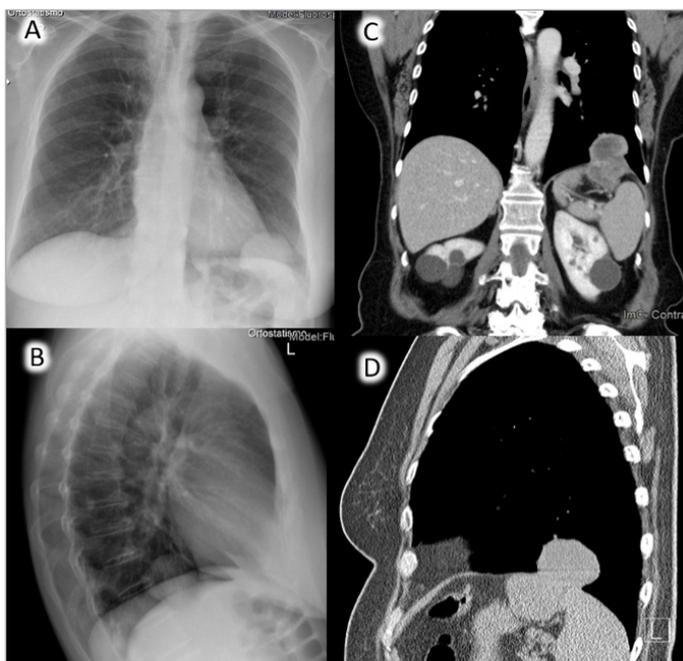


Figure #969: Figure A and B - Antero-posterior and lateral incidences of plain radiography. Figure C and D - coronal and sagittal plane of CT.

may arise from abdominal or thoracic organs that disrupt the diaphragm or primary or metastatic lesions of diaphragm himself.

Results: The study was complemented with thoraco-abdominal-pelvic CT scan which revealed a mass that extends in the upper and lower diaphragm, close to stomach and spleen with no cleavage plan. There were no hepatic lesions nor enlarged lymphadenopathies. The upper endoscopy showed no alteration of the gastric mucosa, but a bulging was detected suggesting external compression. Echo-endoscopy found that the mass invaded gastric muscular layer. Biopsy was made through this technique and immunophenotypic pattern was compatible with gastric adenocarcinoma.

Conclusions: The identification of this intriguing transdiaphragmatic image on thoracic radiography lead to investigation of a non-diagnosed tumour namely a gastric cancer with direct invasion of adjacent structures.

PV703 / #980

GASTRIC PNEUMATOSIS: A RARE PRESENTATION OF DESMOID TUMOR

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Case Description: 52-year-old woman with no relevant personal history visited the emergency department for vomiting and diarrhea with 1 week of evolution associated with fever and abdominal pain. Upon admission, the patient was conscious, hemodynamically stable, afebrile and the abdomen was soft and depressible, painless on palpation, without palpable masses or signs of peritoneal irritation. Blood test showed an increase in C-reactive protein 149 mg/L and lactates 2.5 mmol/L. Abdominal-pelvic CTscan revealed gastric pneumatosis (GP) and parietal thickening of the jejunoleal loops and air in the portal system.

Clinical Hypothesis: GP can be caused by ischemia, infection, mucosal disruption, endoscopic procedure, connective tissue diseases and rarely by tumors.

Diagnostic Pathways: Upper gastrointestinal endoscopy was normal. Worsening of abdominal pain and fever, a new CT scan revealed pneumoperitoneum and peritoneal fluid. Emergent laparotomy showed jejunum perforation with peritonitis and neoformation of the mesentery root with infiltration of the small intestine was found and excised. She was admitted to the Intensive Care Unit due to septic shock caused by peritonitis secondary with multiorgan dysfunction. Histological analysis revealed to be an intraabdominal desmoid tumor (DT). Recurrence after six months of follow-up and, in discussion with a solid tumors reference center, it was decided to start systemic treatment.

Conclusion and Discussion: GP is a rare radiological entity and the present case represents an atypical, but still possible, first

presentation of a DT, which may need critical support. This image could help diagnose of GP and should raise awareness for possible neoplastic entity as a differential diagnosis.

PV704 / #1006

SOLITARY BONE METASTASIS AS THE FIRST PRESENTATION OF A BREAST CANCER: A CASE REPORT!

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Clinical Description: Breast cancer is metastasized at the time of diagnosis in about one third of patients, being the bone the first site of distant metastases. However, only 7-8% of metastatic malignant bone disease initially appears as a single focus. A 57-year-old postmenopausal woman on hormone replacement therapy, with a history of breast reduction and abdominoplasty. Referenced by the attending physician to internal medicine consultation for recurrent retrosternal chest pain, without other symptoms. A CT scan was performed, which showed osteolytic lesion of the sternal body and adenopathy of the internal mammary chain. Bone scintigraphy was performed, which confirmed the focus of intense hyperactivity in the sternal body, without other significant morphofunctional changes to be highlighted.

Clinical Hypothesis: Osteolytic bone lesions are a challenge given the wide variety of possible causes and their prognosis. Is it a primary bone tumor or a metastasis of a hidden neoplasm?

Diagnostic Pathways: Breast ultrasound and bilateral mammography showed a heterogeneous hypoechogenic nodular image with very irregular contours, about 11 mm, super-external to the left, and a left axillary adenopathy with about 2 mm. Fine-needle aspiration biopsy of breast lump and axillary lymph node was performed and demonstrated aspects compatible with mammary epithelial malignancy, with no evidence of ganglion metastasis.

Conclusion and Discussion: A solitary injury to the sternum in a patient with breast cancer is 80% likely to be due to a metastatic disease. In this case, the solitary osteolytic lesion as the first presentation of a breast cancer.

PV705 / #1062

MANTLE CELL LYMPHOMA WITH EXUBERANT SPLENOMEGALY

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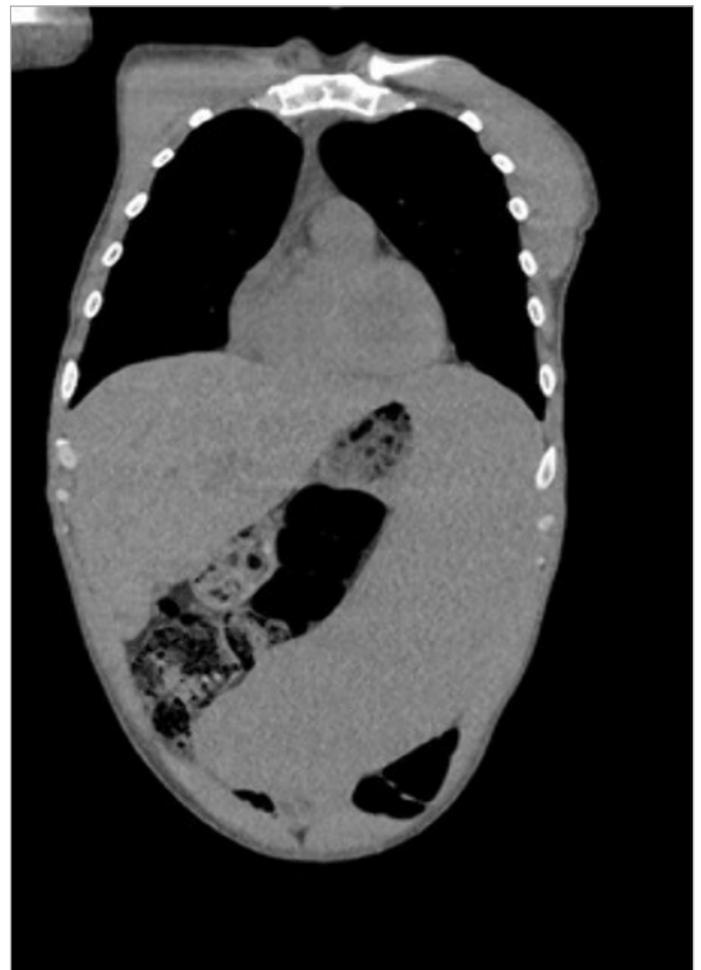
Clinical Description: 43-year-old caucasian male, smoker (27 SPY) with personal history of anemia. Visited the Emergency

Department complaining of productive cough since that morning and tiredness for small efforts, night sweats for the previous 10 months and weight loss for the previous 3 months. He presented palpable supraclavicular lymph nodes, bilateral axillary lymph nodes and bilateral inguinal lymph nodes, a palpable spleen that could be felt on the left and right iliac regions and lower extremities edema, the physical examination was otherwise normal. Analytically with leukocytosis, anemia Hb 7.5 g/dL, anisocytosis and a CRP of 16.65 mg/dL. CT scan revealed adenopathy, hepatomegaly and splenomegaly with the "inferior pole of the spleen reaching the right iliac region".

Clinical Hypothesis: The diagnosis of tracheobronchitis was established and lymphoproliferative disorder was considered. The patient was admitted to the Internal Medicine ward for further study.

Diagnostic Pathways: He was submitted to a bone biopsy, a myelogram an excisional lymph node biopsy that lead to the diagnosis of mantle cell lymphoma on its leukemic variant. He is currently undergoing treatment with R-DHAP and R-CHOP alternated protocols and rituximab.

Conclusions: Mantle cell lymphoma is a mature B cell non-Hodgkin lymphoma with a moderately aggressive course that more frequently affects caucasian men. The leukemic variant mainly involves the peripheral blood, bone marrow and/or spleen.



#1062 Figure

One third of patients have systemic B symptoms. Even on patients presenting with common symptoms, physical examination can be crucial and help to establish an opportunistic early diagnosis. This clinical case stands out due to the exuberant splenomegaly.

PV706 / #1065

SIMULTANEOUS LUNG AND MAXILLARY LESIONS IN A PATIENT WITH PATHOLOGIC FRACTURE

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Case Description: A 69 year-old male smoker presented to the emergency department for new-onset, non-traumatic left shoulder and right knee pain. A 3-month history of non-selective anorexia and cough was reported. Physical examination was remarkable for swelling and erythema on the shoulder and knee, and left nasolabial fold flattening raised the suspicion of central facial palsy. X-ray revealed a left clavicular fracture and CT scan additionally identified a heterogeneous right upper lung mass. Severe hypercalcemia was also identified. Additional investigation documented several lytic bone lesions (sternum, clavicle, dorsal vertebrae and patella), intrathoracic lymphadenopathies and bilateral adrenal metastases. A second, voluminous mass in the left maxillary sinus was also identified, invading all six walls and extending into the surrounding tissues. Very rapid progression of this lesion was noted during hospitalization, resulting in considerable tumefaction and facial asymmetry. There was no evidence of intracranial lesions, haemorrhage or ischemia.

Clinical Hypothesis: Stage IV lung cancer and synchronous maxillary sinus malignancy were considered. The hypothesis of secondary maxillary sinus lesion was judged less likely.

Diagnostic Pathways: Biopsies were performed by bronchoscopy and EBUS, consistent with squamous cell carcinoma of the lung. Biopsy of the maxillary sinus lesion indicated lung metastasis.

Conclusion and Discussion: We hereby report the case of a patient with stage IV lung squamous cell carcinoma and a rapidly growing maxillary sinus metastasis, an infrequently seen localization. This should remind the clinician for this possible association.

PV707 / #1071

REFRACTORY THROMBOTIC THROMBOCYTOPENIC PURPURA: A RARE ENTITY

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Case Description: A 37-year-old woman, was admitted with asthenia and scattered bruises in the last 5 days, with complaints of paresthesias of the upper limbs and face in the previous month. Cranial magnetic resonance imaging showed no alterations. She had normochromic normocytic anemia, thrombocytopenia and mild acute kidney injury. There was evidence of hemolysis without complement consumption.

Clinical Hypothesis: Bicytopenia of unknown etiology.

Diagnostic Pathways: The Coombs test and anti-platelet antibodies were negative and schizocytes were later identified in the peripheral blood smear. The decrease in ADAMTS-13 activity and the presence of specific antibodies confirmed the diagnosis of thrombotic thrombocytopenic purpura (TTP).

Conclusion and Discussion: TTP is a disease caused by autoantibodies against the ADAMTS-13, a metalloprotease that cleaves von Willebrand factor. The symptoms are nonspecific: fever, renal dysfunction, fluctuating neurological or gastrointestinal symptoms. It presents with thrombocytopenia and microangiopathic hemolytic anemia. Deficiency in ADAMTS-13 plasma activity confirms the diagnosis. It's a rare and potentially fatal disease, but plasmapheresis has greatly reduced mortality to about 10%. In the absence of clinical response, additional immunosuppression with the use of monoclonal antibodies is recommended. The authors present a case of refractory TTP, which treatment was initiated without a diagnosis, given the severity of the case. In addition to the transfusion support, she started plasmapheresis and rituximab, having been admitted to the intensive care unit due to neurological complications. Despite the late clinical response, there was complete neurological and hematological recovery.

PV708 / #1079

PULMONARY METASTASIS: A HIDDEN ENEMY

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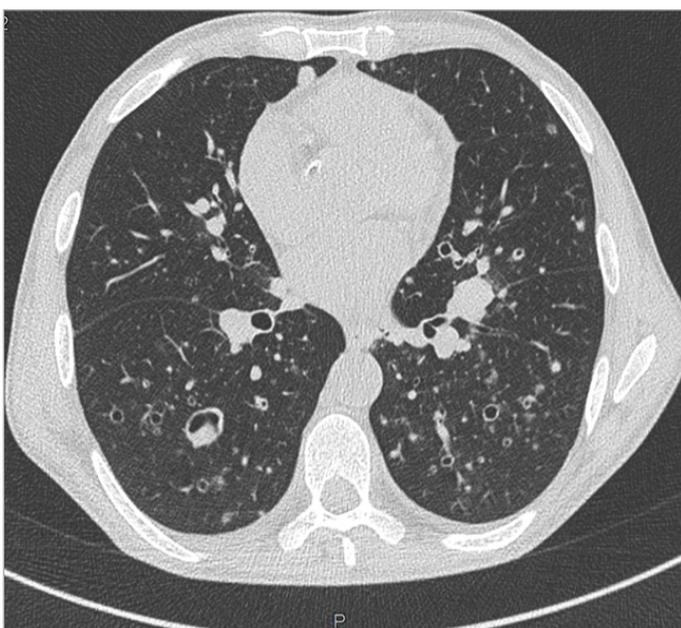
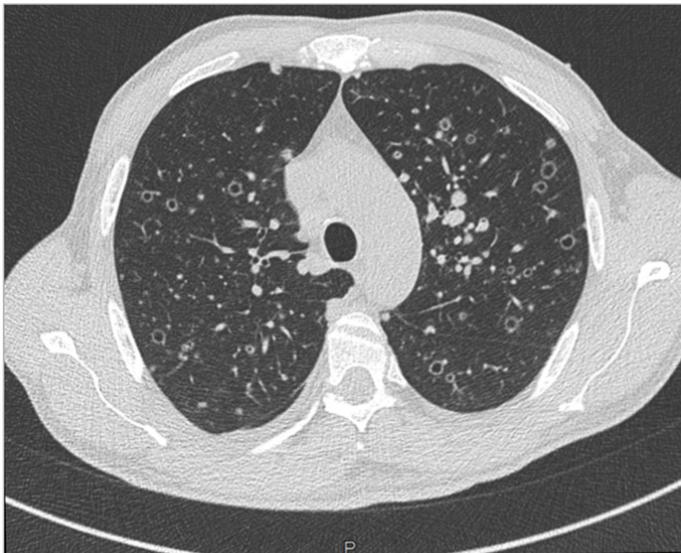
| Hospital Beatriz Ângelo, Internal Medicine, Loures, Portugal

Case Description: 51 year old man, with a recent diagnostic of left renal atypia, with no evidence of metastasis. He underwent kidney surgery without complications. Histological diagnosis

was compatible with type I renal cells carcinoma. 3 months after surgery he went to the emergency department for colicky low back pain and fever.

Clinical Hypothesis: Renal lithiasis with or without obstructive uropathy.

Diagnostic Pathways: He performed a laboratory evaluation that showed an increase in inflammatory parameters, and an abdominal CT compatible with complicated obstructive uropathy on the right. A right ureteral stent was placed. During hospitalization he had night fever, with high inflammatory parameters and consistently negative cultures. Imaging study excluded complications resulting from obstructive uropathy. He underwent 3 cycles of antibiotics with maintained fever, which only disappeared under naproxen. He repeated a thorax CT scan that showed countless small solid lesions, most of them cavitated. Search for mycobacteria and other atypical microorganisms was negative. A transbronchial lung biopsy was performed but was inconclusive, so a lung



#1079 Figure

surgery biopsy was made and revealed multinodular infiltration of lung tissue due to malignancy, compatible with metastasis of a renal cancer.

Conclusion and Discussion: Due to the extent of the disease, and the patient's rapid deterioration, he was sent for a multidisciplinary team appointment, having been decided, with respect to the patient's opinion, palliative strategy. Lung and bone metastasis are still the most frequent metastatic sites of renal cell carcinoma, however, the presentation with cavitated solid lesions is unusual which contributed to the delay in the diagnosis of pulmonary metastasis in this patient.

PV709 / #1087

WALDENSTRÖM'S MACROGLOBULINEMIA: TRANSFORMATION TO DIFFUSE LARGE B CELL LYMPHOMA

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Case Description: A 72-year-old man with fever and wasting syndrome in the previous 3 weeks, was admitted in an internal medicine ward. Physical examination revealed multiple palpable adenopathies in superficial lymphatic territories. Laboratory results showed pancytopenia with lymphoplasmacytes in the peripheral blood smear. Serum electrophoresis revealed IgM kappa monoclonal gammopathy with an IgM component of 3144 mg/dL.

Clinical Hypothesis: Waldenström's macroglobulinemia.

Diagnostic Pathways: Computed tomography showed splenomegaly and supra and infra-diaphragmatic adenopathies. Though bone marrow aspiration was inconclusive, bone marrow biopsy revealed infiltration by B-non-Hodgkin lymphoma. The histological examination of a cervical adenopathy was compatible with diffuse large B cell lymphoma (DLBCL) CD20+.

Conclusion and Discussion: Waldenström's macroglobulinemia (WM) is a low-grade clonal B-cell disorder, characterized by bone marrow lymphoplasmacyte involvement associated with monoclonal immunoglobulin M (IgM). It may present with nonspecific B symptoms, as well as lymphadenopathy or hepatosplenomegaly. The transformation into DLBCL occurs in up to 10% of patients, with a transformation rate of 2.4% in 10 years and is associated with a poor prognosis. Immunosuppressive therapy, chemotherapy or hematopoietic stem cell transplantation is indicated in a selected group of patients. The authors present a case of transforming WM into DLBCL, whose targeted therapy was not possible due to the deteriorated patient's clinical condition. Early diagnosis is essential, and the physician must be alert to the presence of B symptoms in a patient with a fever of unknown etiology.

PV710 / #1090

WHEN THE APPARENTLY OBVIOUS CHALLENGES US

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Background and Aims: Myelodysplastic syndromes (MDS) rarely appear as fever of unknown origin (FUO).

Methods: Authors describe a 79 year old man, history of hemorrhagic stroke, hypertension, hyperferritinemia and urothelial papillary carcinoma. Treated with cefuroxime for symptoms of dyspnoea, myalgia, tiredness and fever, started three days before, after visiting hospitalized daughter. Presented to the emergency room four days after, with the same symptoms. Investigation showed mild anemia, low WBC, increased CRP; normal chest x-ray. He was discharged on amoxicillin/clavul plus azithromycin without improvement. Reevaluated four days after presenting confused, low fever; x-ray obliteration cardio-phrenic sinus; normal blood gas; Hb 10.9 g/dl, WBC 15,600/L, platelets 821,000/L, normal renal and hepatic tests, CRP 32 mg/dl, sedimentation rate 140 mm/h; CT scan normal, urine legionella and pneumococcus, influenza, HIV, CMV, toxoplasma, hepatitis B and C negative; normal cerebrospinal fluid, negative for herpes virus. Was admitted and started on piperacillin/tazobactam. Remained symptomatic after five days, high CRP and doxycycline was associated. More investigation: procalcitonin, negative blood cultures, normal transthoracic echocardiogram, thoracic, abdominal and pelvic CT. Normal ANCA, ANA, C3, C4, CCP, RF; coxiella, rickettsia, mycoplasma, borrelia negative; plasmodium and IGRA negative. Normal peripheral blood smear. PET scan revealing a diffuse increase in bone marrow metabolism. Myelogram and bone biopsy compatible with myelodysplastic neoplasia. BCR-ABL test and JAK2, V617F, SF3B1, CALR mutations, all negative.

Results: Upon diagnosis of MDS, the antibiotic was discontinued and support therapy with erythropoietin was prescribed with disease stabilization.

Conclusions: Rarely presented as FUO, MDS must be considered in elderly with anemia, after excluded the most frequent etiologies.

PV711 / #1101

SEIZURE AS AN INITIAL PRESENTATION OF PULMONARY NEOPLASIA

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Case Description: Female patient, 87 years old, with a medical history of dementia syndrome, hypothyroidism and hypertension. Medicated with risperidone, donepezil hydrochloride, levothyroxine sodium and chlorothalidone. Brought to the emergency department by inaugural tonic-clonic

seizure. On observation, conscious, non-communicative and non-collaborative. She had a bite on her tongue. Apyretic and hemodynamically stable. Cardiopulmonary auscultation with decreased breath sounds in lung bases.

Clinical Hypothesis: Epilepsy; Brain metastases.

Diagnostic Pathways: Analytically with normocytic and normochromic anemia. On chest teleradiography, costophrenic sinuses were erased. She performed cranial brain computed tomography (CT) showing lesions in the two cerebellar hemispheres with adjacent vasogenic edema. The patient was hospitalized for etiological investigation. Chest CT showed the bilateral pleural effusion, expansive lesion in the left lower lobe, infiltrating the pleura and possibly representing a primitive lesion. Abdominal and pelvic CT showed secondary hepatic and adrenal involvement and metastatic bone lesion in the left ileo-pelvic branch.

Conclusion and Discussion: Lung cancer is a leading cause of death worldwide. Approximately 1.6 million individuals die from lung cancer each year and the overall 5-year survival rate is only 15%. Most cases are detected at an advanced stage. This neoplasm is often associated with brain metastases, usually detected at the time of diagnosis. Brain metastases presentation is variable, and the inaugural seizure is found in 20% of patients. With this work, the authors intend to emphasize the importance of investigation by imaging examination in patients who present with a new seizure for screening for secondary etiologies.

PV712 / #1103

PANCOAST TUMOR IN THE EMERGENCY DEPARTMENT: A CASE REPORT

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Background and Aims: This case is based on HJA, 59 years old, male, smoker since 19A (40 UMA). Went to the emergency department with complaints of dyspnoea, tiredness and productive cough with a month of evolution. Concomitantly referred thoracalgia and omalgia on the right, anhidrosis on the right hemiface and violet-colored lesions on the homolateral upper limb. On physical examination he was pale, emaciated, polypneic and feverish (39.2°C), with ptosis on the right and anisocoria. Pulmonary auscultation showed decreased vesicular murmur at the base of the right hemithorax and in the right arm, scattered violet lesions, without relief, with marbled pattern and decreased muscle strength in the limb.

Methods: A lung cancer versus pulmonary tuberculosis was considered as a diagnostic hypothesis.

Results: Analytically, saving leukocytosis with neutrophilia, Hg 13.2 g/dL, hyponatremia of 129 mEq/L and RCP of 20 mg/L. On teleradiography, he presented a nodular hypotransparency, with poorly defined limits, at the apex of the right pulmonary field and pleural effusion on the right. Posteriorly, he underwent a

CT scan that identified massive apical neoformation of the right upper lobe with some contrast uptake, the most likely hypothesis of which was a Pancoast tumor. The mass was subsequently biopsied, which identified a moderately differentiated acinar pattern adenocarcinoma.

Conclusions: After tumor resection surgery and QTRT, he was clinically well. With this case, it is intended to emphasize the importance of placing and excluding the differential diagnosis of neoplasia, even in an apparently acute and infectious context, especially in patients with identifiable risk factors.

PV713 / #1107

WHEN THE FIRST DIAGNOSIS IS NOT THE FINAL DIAGNOSIS

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Case Description: 62-year-old man, with renal cell carcinoma known for two years, revealed low tolerance to nivolumab, sunitinib and pazopanib, and was controlled with axitinib, when he presented to the Emergency Room with obtundation for several days. He denies any alcohol or new-drug intake, fever or other symptoms. Physical exam was unremarkable. Apart from hyponatremia (113 mEq/L), blood analysis was normal. He was admitted to an intermediate care unit for syndrome of inappropriate antidiuretic hormone (SIADH), probably due to antineoplastic-drug or the disease itself. During hospital stay, abdominal CT-scan showed progression of the disease

with hepatic metastatic infiltration. Forty-eight hours later, he developed respiratory acidemia that prompted the need to initiate non-invasive ventilation (NIV).

Clinical Hypothesis: Pulmonary infection, restrictive pulmonary disease, paraneoplastic syndrome

Diagnostic Pathways: Chest CT-scan didn't show any neoplastic lung involvement, nor any parenchyma alteration. Analysis remained unremarkable and the patient afebrile. A marked atrophy of the tenar eminence was noted, together with de novo tongue fasciculation. An electromyography was performed and revealed signs of motor neuron degeneration in different stages of evolution, consistent with amyotrophic lateral sclerosis (ALS). He was initiated with riluzole, but remained with nocturnal NIV.

Conclusion and Discussion: It is difficult to distinguish ALS from a paraneoplastic syndrome. In this case the latter seems less probable because of the degree of neuronal degeneration and muscular atrophy. However, the case developed quickly, in an older patient with no past history associated nor family history of ALS.

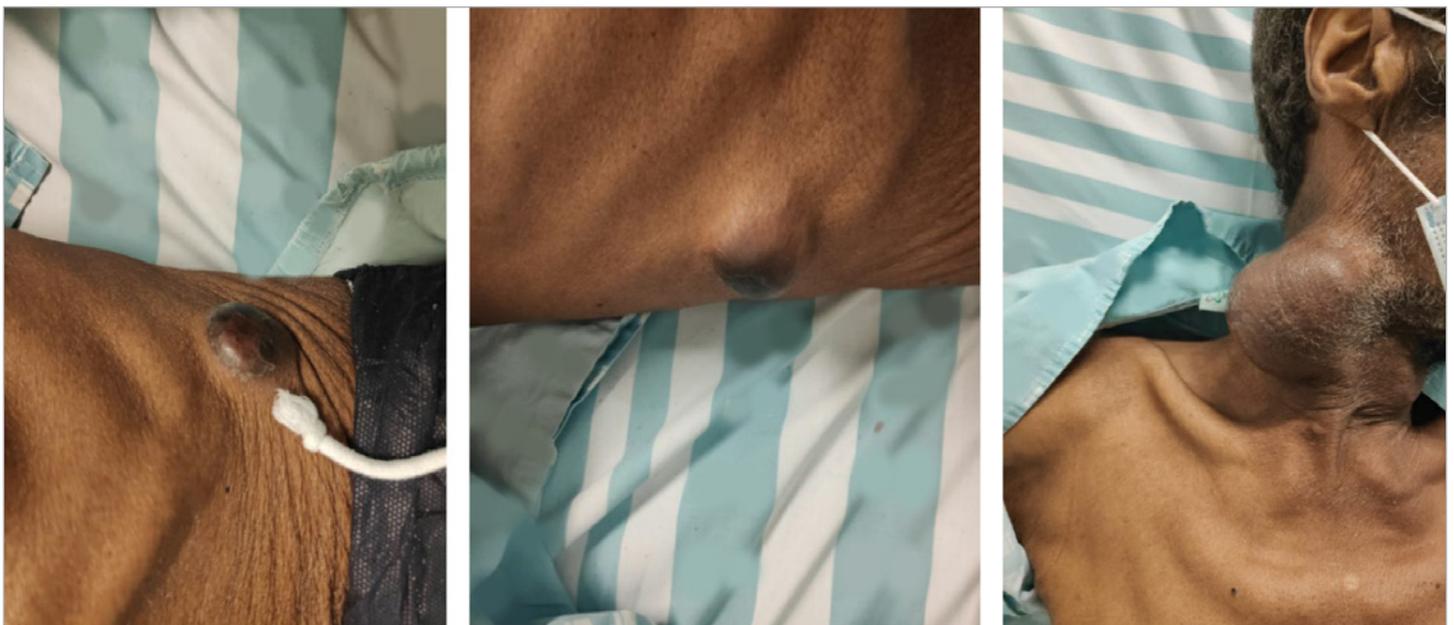
PV714 / #1115

MYSTERIOUS SKIN GROWTH

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Case Description: 66-year-old man, illegal immigrant from Senegal, without regular medical follow-up. He went to the emergency department presenting with asthenia, weight loss (20% in 3 months), night fever and multiple growth dispersed throughout the body, well defined, mobile, painful, not adherent to deep planes, the largest in the right cervical region, evolving for 3 months. Active smoking habits. No other known pathologies.



#1115 Figure

Clinical Hypothesis: Lymphoma, Skin metastasis, Tuberculosis, HIV.

Diagnostic Pathways: Laboratory workup with normochromic normocytic anemia, LDH elevation. Viral serologies were negative. CT scans revealed a solid infiltrative lesion in apical segment of the right upper lobe, associated with invasion of the adjacent chest wall, suggesting neoplastic lung injury, with secondary involvement of bone, ganglion, liver, suprarenal gland, skin and brain. Biopsy of one of the lesions was executed, with histology and immunophenotyping compatible with anaplastic lung carcinoma. Due to the advanced stage of the disease, with deterioration of the general condition, the patient ended up dying without the possibility of performing therapy.

Conclusion and Discussion: Lung cancer is highly prevalent and is the leading cause of cancer deaths. Cigarette smoking is the main risk factor for lung cancer. Metastatic spread is relatively common, but skin metastasis is uncommon. Lung cancer is widely studied, so there are multiple therapeutic options that can cure or allow quality survival for some years. Due to the extent of the disease, we infer that this was a long-standing disease, which is a testament to the importance of health literacy and easy access to health care.

PV715 / #1139

DISSEMINATED INTRAVASCULAR COAGULATION AS INITIAL PRESENTATION OF PROSTATIC CANCER – A CASE REPORT

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Background and Aims: Disseminated intravascular coagulation (DIC) is a systemic condition caused by uncontrolled activation of coagulation, with depletion of coagulation factors. Several conditions are associated with DIC, namely malignancy, more frequently mucinous tumors and acute promyelocytic leukemia.

Case Description: A 85 year-old man, with chronic kidney failure, presented with epistaxis, oral hemorrhage and loss of weight in the previous months. In the emergency department, prolonged prothrombin time, thrombin time and activated thromboplastin time were identified, alongside with very low levels of fibrinogen, anemia and thrombocytopenia; DIC was considered (ISTH DIC Score 7 points). A pool of platelets and 2 grams of fibrinogen were administered, with sustained reversion of the mentioned findings and without any subsequent hemorrhage.

Results: The patient was admitted for etiological study and underwent contrast-enhanced computed tomography scan, which identified an enlarged prostate with heterogenous contrast fixation and several osteolytic lesions associated with an elevated PSA level (>1000 ng/mL). The diagnosis of prostatic cancer with secondary acute DIC was assumed. Due to the patient's comorbidities and tumor progression, further studies were not

performed and palliative hormone therapy with bicalutamide and triptorelin was started.

Conclusions: Cancer associated acute-DIC is not a common occurrence in prostatic cancer (incidence of 13-30%, symptomatic in 0.4-1.65% of the cases), especially as its initial manifestation. The early initiation of hormone therapy was decisive for the good response and clinical stability of the patient.

PV716 / #1143

WHEN COAGULOPATHY IS MASKED BY ANTICOAGULATION - A LATE DIAGNOSIS OF VON WILLEBRAND DISEASE

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Case Description: The present case is based on an 80-year-old woman with atrial fibrillation anticoagulated with warfarin, multiple myeloma (MM), microcytic and hypochromic anemia and hemorrhagic diathesis (mucocutaneous, urological and gynecological). Admitted for decompensated heart failure due to worsen anemia. Anticoagulation was suspended. During hospitalization she had several episodes of hemorrhagic dyscrasia – rectus abdominal muscles's hematoma with active bleeding from the lower epigastric artery, Dieulafoy lesion with gastric bleeding, persistent hematochezia post polypectomy and intermittent hematuria – requiring transfusion support.

Clinical Hypothesis: Von Willebrand disease (vWD) is the most common inherited bleeding disorder. Can be congenital or acquired and classified into 3 types, which are distinguished by the deficiency in the quality or quantity of von Willebrand factor (vWF). Analytically it is typical a prolonged partial activation time of thromboplastin (aPTT), thrombocytopenia and microcytic anemia.

Diagnostic Pathways: Prolonged aPTT (45,5" – already prolonged previously) corrected after mixing study, decreased of factor VIII (FVIII) (21%), absence of inhibitors, vWF: RCo 5% and vWF: Ag 18.4%. Autoimmune disorder and MM progression were excluded. Discussed with Immunohemotherapy and admitted diagnosis of vWD type 2, presumably congenital. vWF/FVIII concentrate was administered with clinical and analytic improvement, ceasing hemorrhagic dyscrasia.

Conclusion and Discussion: It is a late diagnosis of vWD, in an anticoagulated patient, with persistently prolonged aPTT and hemorrhagic dyscrasia's history. Through the diagnostic pathway vWD type 2N congenital is presumed (affects binding between vWF and FVIII, decreasing the FVIII's half-life and quantity). The importance of clotting times, clinical history and physical examination is highlighted in the diagnosis of hemostasis disorders, which can be "masked" by anticoagulant therapy.

PV717 / #1148

MALIGNANT HYPERCALCEMIA FROM INTACT PTH ECTOPIC PRODUCTION

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Case Description: We report a case of an 84-year-old male patient with a left lung small cell carcinoma in a stage IV with hepatic, bone and lymphatic involvement. He arrived to the emergency room with small hemoptysis without hemodynamic instability and hypercalcemia de novo. He had no alterations of electrocardiogram and, besides constipation, he had no other symptoms.

Clinical Hypothesis: Malignant hypercalcemia is relatively common in patients with cancer, specially through mechanisms like the tumor secretion of parathyroid hormone-related protein, osteolytic metastases with local release of cytokines and tumor production of calcitriol. Ectopic tumoral secretion of parathyroid hormone (PTH) can also occur, although it is a very rare event.

Diagnostic Pathways: To investigate the cause of this hypercalcemia, we analyzed the serum PTH. Results showed high levels even if he had no alterations on parathyroid scan, without hypocalciuria. Thus, it was assumed a hypercalcemia due to intact ectopic PTH production from the tumor.

Conclusions: Even if it is a rare finding, hypercalcemia etiology should be investigated and ectopic authentic PTH production should be considered.

PV718 / #1150

IN-HOSPITAL IMPACT FACTORS ON LONG TERM SURVIVAL: THE ROLE OF ANEMIA

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Background and Aims: Anaemia, one of the most common health problem worldwide, has been associated with increased morbidity and mortality. The aim of this retrospective study was to investigate the impact factors on long term survival after discharge from Internal Medicine ward.

Methods: Survival of patients after discharge from an Internal Medicine Department between October 2013 and October 2014 was analysed. A total of 681 patients were hospital admitted during one year and then retrospectively followed for 6 years, were included in the analysis.

Results: There was a negative correlation between haemoglobin and mortality (Spearman's rho correlation coefficient 0.312, $p < 0.001$). The lower the haemoglobin value, the greater the probability of death. Using a binary logistic analysis, anaemia was an independent predictor of all-cause mortality (OR=2.095; IC95% = 1.452 - 3.021). Using Cox regression analysis, including

age, gender, anaemia, heart failure and hypertension, only anaemia was predictor of long term all-cause death (HR=1.59; IC 1.219 - 2.079; $p=0.001$). Based on the area under the ROC curve for discrimination of the model, haemoglobin was predictive of mortality (AUC=68%, $p < 0.001$; CI 95% 0.643 - 0.723).

Conclusions: Anaemia, a frequent underdiagnosed and undertreated comorbidity in Internal Medicine Wards is an independent predictor of long term all-cause mortality after an acute hospital admission, highlighting an unmet need for systematic diagnosis and management of anaemia in hospitalized patients. Studies are needed to evaluate long term consequences of anaemia treatment.

PV719 / #1170

DIAGNOSIS BY SURGICAL EXCISION

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Background and Aims: Diffuse large B cell lymphoma (DLBCL) is the most common histologic subtype of non-Hodgkin lymphoma. They typically present a rapidly enlarging symptomatic mass, due to a nodal enlargement, frequently located at neck or abdomen.

Methods: Clinical process review.

Results: A 71-year-old woman with a history of arterial hypertension, cerebrovascular disease, type 2 diabetes mellitus, chronic kidney disease, dyslipidemia, went to the Emergency Department (ED) due to involuntary loss of 16% of her body weight in one month. Associated with nausea and lower back pain. She reported no fever or objective adenopathies. Analytically had a hypochromic microcytic anemia. Thoraco-abdomino-pelvic tomography (TAP-CT) revealed suspicious hypovascular nodular lesions in the splenic parenchyma, a periportal adenomegaly close to the small gastric curvature and celiac trunk, and extensive retroperitoneal adenopathic conglomerates. During hospitalization, she performed myelogram and immunophenotyping of bone marrow and blood without malignant alterations, negative viral serologies, gynecological exam and breast ultrasound were normal. A fine needle aspiration cytology (FNAC) of the abdominal mass was performed, and she was oriented to consultation pending results. She recurs to ED due to worsening of lower back pain, and the TAP-CT revealed new supraclavicular adenomegalies. The abdominal ganglion biopsy revealed inconclusive and a new surgical biopsy of the lumbar-aortic adenopathic conglomerate was performed, revealing a DLBCL, being orientated to Haemato-Oncology.

Conclusions: This case shows how a FNAC of a lymph node in the majority of cases can not show the diagnosis and a more invasive tactic is needed. Therefore, the diagnosis of DLBCL is best made by excisional tissue biopsy.

PV720 / #1175

ATYPICAL PRESENTATION OF ACUTE MYELOID LEUKEMIA

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Case Description: A 72-year-old man, with colic diverticulosis, was admitted with fever, vomiting and abdominal pain. On physical examination he was slightly hypertensive, febrile and with a painful abdomen, but without signs of concern. His blood tests revealed macrocytic anemia (hemoglobin 8.0 g/dL), neutrophilic leukocytosis (leukocytes of $27.4 \times 10^9/L$, neutrophils $19.18 \times 10^9/L$), increased C-reactive protein (28.3 mg/d), procalcitonin (3.84 ng/L) and acute kidney injury (creatinine 2.67 mg/dL and urea 151 mg/dL). Abdominal CT scan showed aspects that suggested acute diverticulitis and was started antibiotic therapy piperacillin tazobactam. On the 5th day of hospitalization, he developed a deep venous thrombosis of the right lower limb with phlegmasia cerulea dolens (PCD), complicated with ischemia and progressive gangrene, that culminated in amputation. Simultaneously, there were laboratorial changes that met criteria for disseminated intravascular coagulation (DIC) and peripheral blood smear revealed presence of blasts.

Clinical Hypothesis: Sepsis-induced coagulopathy.

Diagnostic Pathways: We performed a myelogram that revealed acute myeloid leukemia with monocytic maturation.

Conclusion and Discussion: Unfortunately, the patient died two days after the diagnostic of leukemia, before starting directed therapy. The association between malignancy and venous thromboembolism events is well established, however is infrequent the thromboembolic event occurring before the diagnosis of cancer. PCD of the lower extremity, is also a rare entity that carries a high mortality rate. An investigative approach should always be undertaken to find the cause of a thrombosis and a high index of suspicion while treating unusual thromboembolic events can significantly increase the chances of better health care outcome.

PV721 / #1180

ACUTE RESPIRATORY DISTRESS SYNDROME INDUCED BY COVID-19 IMMUNE RECONSTITUTION INFLAMMATORY SYNDROME FOLLOWING CHEMOTHERAPY-INDUCED APLASIA

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Case Description: A 42-year-old man was transferred to COVID-19 ward after a positive reverse-transcriptase-

polymerase-chain-reaction test for SARS-COV-2. He has a history of Philadelphia-positive chronic myeloid leukemia, diagnosed 7 month earlier, treated with imatinib and dasatinib. The bone marrow biopsy performed after dasatinib treatment showed chronic myeloid leukemia in accelerated phase and patient was proposed to bone marrow allotransplantation. 15-days before, he was admitted in an oncology hospital to undergo conditioning therapy with fludarabine, ara-C, granulocyte colony-stimulating factor (G-CSF) and idarubicin. On physical examination he has fevers, was pale, and pulmonary auscultation revealed diminished murmur on the inferior third of the right hemithorax. Laboratory findings showed pancytopenia, elevated c-reactive-protein and procalcitonin. Broad-spectrum antifungal and antibiotics were initiated and G-CSF factor was maintained. After an initial clinical and laboratory improvement the patient got worse.

Clinical Hypothesis: Acute Respiratory Distress Syndrome (ARDS) induced by COVID-19 Immune Reconstitution Inflammatory Syndrome (IRIS) following chemotherapy-induced aplasia was equated.

Diagnostic Pathways: Neutropenia was resolved and, on the day after, the patient developed progressive respiratory failure with rapidly increasing oxygen demand. Additionally, he showed elevated inflammatory markers and d-dimers. A pulmonary CT-scan showed worsening ground-glass opacities and multiple bilateral consolidations. The patient was intubated and mechanically ventilated. High-dose corticosteroid therapy was started and the patient recovered.

Conclusion and Discussion: IRIS occurs in patients with severe immunosuppression in response to rapid immune reconstitution and results in an uncontrolled inflammatory response to infectious agents and tissue damage. Symptoms such as fever and radiological signs paradoxically appear or worsen, revealing an underlying infection, as in this case with COVID-19.

PV723 / #1217

MULTIPLE MYELOMA PRESENTING AS A PATHOLOGICAL FRACTURE WITH A PLASMACYTOMA

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Background and Aims: Multiple myeloma is a relatively common malignancy of the elderly. Pathological fractures are among the most common presenting features, especially in patients with persistent lumbar pain. However, facing a patient presenting a vertebral fracture due to an osteolytic lesion, a metastatic cancer is more likely.

Methods: We present a case of multiple myeloma with a pathological vertebral fracture as its presenting manifestation.

Results: A 71-year-old female patient presented to the emergency department with a 3-week-long history of severe, refractory and

progressive lumbar pain that was exacerbated by movement. A vertebral CT scan demonstrated diffuse osteopaenia and a lytic lesion with 25-50% height loss in L2 that compressed the lumbar canal. The analytical profile was remarkable for anaemia (haemoglobin 10.0 g/dL), hypercalcaemia (14.8 mg/dL) and mild hypophosphataemia (2.4 mg/dL), without kidney dysfunction. A thoraco-abdominopelvic CT scan showed no other lesions suspicious for malignancy. She was transferred to a Neurosurgery ward, where she underwent L2 vertebroplasty and percutaneous fixation of L1-L2-L3, after an MRI that confirmed the radiological findings. The vertebral biopsy showed a plasmacytoma expressing kappa light chains. Protein electrophoresis showed a monoclonal gammopathy; further study demonstrated the lesion to be an IgA kappa multiple myeloma. She remained clinically stable and autonomous after surgery and was subsequently started on chemotherapy.

Conclusions: Pathological fractures are most commonly caused by metastatic solid tumours. However, this is a common presenting feature of multiple myeloma. This patient had a local plasmacytoma that resulted in such a fracture, leading to the final diagnosis.

PV724 / #1237

BENDAMUSTINE-INDUCED RASH IS ASSOCIATED WITH FAVOURABLE PROGNOSIS IN PATIENTS WITH INDOLENT B-CELL LYMPHOMA

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Background and Aims: Skin toxicity associated with bendamustine is recognized as one of its characteristic adverse effects. We retrospectively examined the relationship between bendamustine associated drug rashes and disease prognosis for indolent B-cell lymphoma (iBCL) and mantle cell lymphoma (MCL).

Methods: From January 2011 to December 2020, 91 patients (57 men and 34 women, with median age 68, range 39-84) were analyzed. The diagnoses were 66 FL, 13 MCL and 12 other iBCLs.

Results: Drug rashes occurred in total 32 cases (35.2%). 9 (28.1%) were Grade 1, 6 (18.8%) were Grade 2, and 17 (53.1%) were Grade 3. The onset was first course in 20 (62.5%), 2nd course in 5 (15.6%), 3rd course in 3 (9.4%) and after 4th course in 4 (12.5%). Treatment was observation in 2 (6.3%), steroid topical application in 10 (31.3%), antiallergic drug in 2 (6.3%), steroid topical application and antiallergic drug in 7 (21.9%), steroid oral administration, topical application and antiallergic drug in 11 (34.4%). In 5 of the 17 cases of Grade 3, bendamustine was discontinued and changed to rituximab monotherapy (n=3) or watchful waiting (n=2). The 3 years PFS and OS of cases with rash development were 78.6 and 92.4%, and those without development were 43.8 and 62.0%,

respectively (P=0.003 and 0.002, respectively). By multivariate analysis, development of rashes and diagnosis of iBCL were associated with better PFS and the former with better OS.

Conclusions: This study suggests for the first time that drug rashes related to bendamustine was associated with favourable prognosis among patients with iBCL.

PV725 / #1264

IMMUNE MEDIATED PNEUMONITIS AND ENTERITIS RELATED TO IMMUNE CHECKPOINT INHIBITOR THERAPY FOR LUNG CANCER

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Case Description: A 67-year-old man presented to the emergency room with dyspnea, cough, abdominal pain, nausea, vomiting and diarrhea that had begun a week ago. Initial blood analyses revealed increased inflammatory parameters. A chest CT scan revealed the presence of bilateral pulmonary consolidations suggestive of infection. Abdominal CT scan did not show any relevant alterations, and there was not any parietal thickening of the colon or rectum. Urinary antigens for *Streptococcus pneumoniae* and *Legionella pneumophila* were negative, as was *Clostridium difficile* toxin stool analysis. Bronchial secretions and stool were collected for microbiology and antibiotic treatment with amoxicillin/clavulanate and azithromycin was prescribed. This was a patient that had begun second line treatment with the immune checkpoint inhibitor pembrolizumab in June 2020, every 6 weeks, for squamous cell lung cancer, and last administration was 4 weeks ago. After three days of antibiotic therapy, the patient was not improving. There were no isolates in the products that had been sent to microbiology.

Clinical Hypothesis: The suspicion was raised that the patient's symptoms could be explained by an immune mediated process related to the anticancer therapy that he was receiving and it was decided to initiate treatment with corticosteroids, 1 mg/kg/day.

Diagnostic Pathways: After that, the patient began to improve and his respiratory and abdominal complaints eventually resolved, and the patient was discharged.

Conclusion and Discussion: The increasing use of immune checkpoint inhibitors in cancer treatment can lead to a variety of new adverse effects. Distinction with an infectious cause is often difficult and a high degree of suspicion is required.

PV726 / #1265

A RIGHT UPPER LUNG THAT IS NOT A LUNG

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Case Description: A 55-year-old man, previously a heavy smoker, with no other relevant medical background, that worked as a welder, presented with complaints of lower limb oedemas and left hip pain. During the study of these oedemas a chest CT scan was performed, revealing a bulky mass located in the superior right lobe, measuring 14.6x11.4 cm, with extensive pleural invasion and mediastinal prolongation, involvement of the right main bronchus, superior vena cava and right pulmonary artery, as well as multiple mediastinal adenopathies.

Methods: A biopsy was performed, which revealed a non-small cell lung cancer (NSCLC), not otherwise specified, PD-L1 positive 1-5%, with no oncogenic drivers detected by next generation sequencing. He also underwent a PET scan, revealing a lytic lesion in the left acetabulum.

Results: He begun treatment with carboplatin, pemetrexed and pembrolizumab, and underwent radiotherapy to the left hip. After 1 cycle, he presented with left knee pain and swelling. An MRI was performed, revealing a metastatic lesion in the left upper fibula. Since he had just started treatment, it was decided to maintain the initial regimen until response evaluation.

Conclusions: Stage IV NSCLC is usually associated with poor prognosis. In recent years, novel therapies have arisen, such as immunotherapy and tyrosine kinase inhibitors that target specific oncogenic drivers, with higher response rates, longer progression free survival and more favorable toxicity profiles. These have revolutionized treatment of NSCLC. Due to the aggressive nature of this disease, close follow-up is warranted, in order to allow for early initiation of second line therapy.

PV727 / #1272

AN ALMOST SILENT NEOPLASM

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Background and Aims: Renal cell carcinoma has different forms of presentation with a wide variety of signs and symptoms, being classically described as the great mimic. The most specific symptoms (such as hematuria, palpable mass and local pain) appear in a few patients and, generally, in more advanced cases of illness. In about half of the cases its detection in imaging studies is incidental. The authors intend to warn of this prevalent neoplasm, but which is difficult to diagnose due to the usually frustrating and late manifestations.

Methods: 74-year-old woman with dyslipidemia and hypothyroidism. No history of smoking, obesity or hypertension. A month before started fever, chills and weight loss. With dysuria, urgency and polyakuria, treated for cystitis. No improvement in

symptoms, and later abdominal pain (left hypochondrium) and lumbar pain (L2-L3) were associated. Hemodynamically stable, subfebrile, soft and depressible abdomen, painless, without palpable mass.

Results: No urinary infection criteria, without leukocytosis, negative C-reactive protein, renal function and normal ionogram. Renal US with a suspected echogenic nodule of the upper pole of the left kidney. Had a negative urine culture, negative urinary cytology. Abdominal CT scan characterized renal neof ormation, with a more hypodense central area, being suspected of neoplasia. Undergone left radical nephrectomy. The anatomopathological examination confirmed a renal carcinoma of renal cells of clear cells, limited to the kidney and without lymphovascular invasion.

Conclusions: This clinical case demonstrates the importance of valuing early symptoms and a high index of suspicion that led to an early diagnosis of this aggressive and potentially fatal pathology.

PV728 / #1274

A CAUSE OF THROMBOCYTOPENIA; METASTATIC CANCERS OF UNKNOWN PRIMARY ORIGIN

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Background and Aims: Epistaxis and gingival bleeding are among the most common presentation to the emergency department for patients with thrombocytopenia.

Methods: Here, we present a case who was admitted to the emergency department with thrombocytopenia and was diagnosed with metastatic cancer of unknown primary origin.

Results: A 26-year-old male patient was admitted to the emergency department with gingival bleeding and epistaxis. The body temperature was 38.3 degrees. Petechial rash, ecchymosis, or organomegaly was not detected on physical examination. Laboratory results revealed thrombocytopenia as 31 (159-388 x10³/μL). Although hemoglobin and leukocyte counts were normal, no band or precursor cell was observed in the patient's peripheral blood smear. There was no history of weight loss, night sweats, arthritis, malar rash, photosensitivity, contact with ticks, animals, or a COVID-19 patient. Serological tests performed for infections such as HIV, EBV, HCV, Crimean-Congo hemorrhagic fever were negative. Bone marrow biopsy was performed due to the unexplained cytopenia, reported as "signet ring cell metastatic adenocarcinoma". Gastrointestinal system endoscopy was performed to detect primary cancer. A biopsy was taken from the antrum and corpus revealed gastritis. An FDG PET-CT was revealed heterogeneously pathologically increased FDG attitude in all axial and appendicular bones. Despite all the modalities of diagnosis, the origin was not found and the patient was transferred to the oncology department for treatment with a diagnosis of cancer of unknown origin with bone marrow infiltration.

Conclusions: Bone marrow metastases should be kept in mind in patients presenting with thrombocytopenia.

PV729 / #1354

WE KNOW IT'S CANCER... BUT WHERE?

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Case Description: Male, 51 years old, no relevant personal background, except heavy drinking and smoking habits. The patient is sent to the emergency department by his GP with complaints of right iliac region pain, increased abdominal girth and loss of over 5 pounds in a month. He was medicated and sent to an Internal Medicine (IM) appointment. After the appointment the patient got worse (ascites requiring 3 paracentesis with withdraw of 2 L, 1.5 L and 6 L; constipation, aggravated anorexia and weight loss), being admitted.

Clinical Hypothesis: Alcoholic chronic liver disease - Refractory ascites - Digestive cancer.

Diagnostic Pathways: In the appointment: Ca-125 elevation, rectum walls' thickened (CT scan) and duodenum's hyperplastic polyp (endoscopy). During admission: ascitic fluid with no neoplastic cells; positive fecal blood test; Ca-125 and Ca-72.4 elevation; 2 non conclusive colonoscopies; intestinal loops conglomerated and thickening of the walls (abdominal ultrasound); peritoneal thickening (abdominal MRI); a 3rd colonoscopy demonstrated peritoneal carcinomatosis and an extrinsic compression indicating a non-colic cancer; non-conclusive PET scan. Despite all the testing there wasn't a definitive diagnosis and the patient's condition kept deteriorating. The case was discussed with General Surgery and the patient went to an exploratory laparotomy that revealed an adhesive peritonitis; samples and biopsies were collected, later showing a primary digestive adenocarcinoma.

Conclusion and Discussion: This case study shows that although there was a high malignancy suspicion, sometimes it's not easy to diagnose this entity, showing that we always have to be alert to the clinical signs of our patients.

PV730 / #1367

OVARIAN CANCER, WITHOUT OVARIES?

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Case Description: Female, 59 years old. Personal background of arterial hypertension and type 2 diabetes. Hysterectomy and annexectomy in 2015 (benign biopsies). The patient resorted to the emergency department (ED) due to breathing difficulty and increased abdominal girth with ascites. A paracentesis was

performed withdrawing 9.5L of citric yellow fluid. The patient was admitted.

Clinical Hypothesis: Pulmonary thromboembolism - Ascites - Cancer of unknown primary origin.

Diagnostic Pathways: In the ED: hypoxia in arterial blood gas test; CT scan with pulmonary thromboembolism and peritoneum calcified nodules suggestive of metastases (hypothesis of recurrence of a gynecological cancer or primary digestive cancer). During admission: elevation of cancer markers (Ca 125, Ca 15.3, Ca 19.9, Ca 72.4 and thyroglobulin); upper digestive endoscopy with small curvature's thickened walls and the colonoscopy showing a malignant looking polyp with signs of recent bleeding in the ascending colon (later discovered to be hyperplastic). A second colonoscopy was performed due to the patient's aggravated clinical state (constipation and abdominal pain), revealing a second ulcerated lesion in the sigmoid colon (preliminary biopsies of mild differentiated adenocarcinoma). The patient started digestive directed chemotherapy. Afterwards the conclusive result of the biopsy disclosed an immunohistochemical profile of ovarian cancer.

Conclusion and Discussion: The patient was discharged with ovarian chemotherapy scheduled in the Day Hospital. Unfortunately, the patient was readmitted with peritonitis and chemotherapy-induced neutropenia, eventually dying of septic shock. This case is a reminder of the complexity and difficulty of cancer patients' diagnose and follow up.

PV732 / #1432

WHEN CELLULITIS IS A LYMPHOMA AFTER ALL - UNUSUAL MANIFESTATION OF A FOLLICULAR LYMPHOMA

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Case Description: Patient female, 76 years old, history of hypertension and obesity. Hospitalized for cellulitis treatment of the lower limbs. Underwent antibiotic therapy with levofloxacin, followed by intravenous clindamycin, without improvement of the lesions.

Clinical Hypothesis: During the investigation, blood cultures were collected and they were negative. Inflammatory parameters namely C-reactive protein always negative. Autoimmunity was also negative. Protein electrophoresis showed no monoclonal spike. A thoraco-abdomino-pelvic CT scan was performed showing multiple adenopathies. A lymphadenectomy was performed, and the node was sent for pathological anatomy and flow cytometry. Skin biopsy was also performed.

Diagnostic Pathways: Histological examination of the node showed lymphoproliferative process low-grade non-Hodgkin, entirely of follicular architecture and with morphological and immunophenotypes of grade 1 follicular lymphoma. However, skin biopsy showed only discrete interstitial inflammatory

infiltrate, unproved direct relationship with lymphoma.

Conclusion and Discussion: Diagnosed with Follicular NHL of low histological grade, stage IV (bone marrow) and assumed paraneoplastic skin involvement. Complied R-CVP protocol (rituximab cyclophosphamide vincristine prednisolone), with clinical and analytically favorable evolution and skin lesions resolution. This case is presented for emphasize the importance of alerting other specialties to this entity, in order to diagnose it in a timely manner.

PV733 / #1457

PARANEOPLASTIC OPSOCLONUS-MYOCLOONUS SYNDROME AS A RARE PRESENTATION OF SMALL CELL LUNG CANCER

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Case description: A 69-year-old man, heavy smoker, with previous history of hypertension and ischemic stroke, with no sequelae, presented to the emergency room with ataxic gait, phono and photophobia, vertigo, dizziness, nausea and vomiting that begun a few weeks ago and progressively aggravated. At examination, rapid, multidirectional eye movements and facial myoclonus were noted, with no diplopia.

Clinical Hypothesis: He was admitted to hospital with suspicion of ischemic stroke of the cerebellum. An MRI was performed, that showed no acute alterations and no evidence of cerebral or cerebellar stroke or hemorrhage. Cerebrospinal fluid analysis and antineuronal antibodies were negative.

Diagnostic Pathways: After ten days in hospital his symptoms did not improve and the hypothesis of opsoclonus-myoclonus syndrome was raised. To exclude a paraneoplastic etiology, a CT of the chest and abdomen was ordered, that showed a 2.2 cm mass in the inferior lobe of the left lung and mediastinal lymphadenopathies. Histologic analysis of the mass led to the diagnosis of small cell lung cancer. A PET scan showed a bone metastasis in the 3rd cervical vertebrae in addition to the know neoplasm and lymphadenopathies. Cerebrospinal fluid analysis was negative to malignant cells. He begun corticotherapy, physiotherapy and chemotherapy with carboplatin and etoposide, and experienced an important improvement of the neurological complaints, maintaining slight horizontal eye movements and vertigo.

Conclusion and Discussion: Opsoclonus-myoclonus syndrome, also known as dancing-eyes syndrome, is an extremely rare neurological condition of unknown cause that usually occurs as a paraneoplastic entity or associated with a viral infection. It is a poorly understood neurological condition with uncertain neurological prognosis.

PV734 / #1478

DIFFERENT FORMS OF MULTIPLE MYELOMA PRESENTATION

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Case Description: A: A 72-year-old woman presented to the emergency ward with hemoptoic cough and fever. Laboratory showed acute kidney injury (AKI), anemia and C-reactive protein 230.4 mg/dL. Thoracic CT-scan revealed ground-glass opacities, suggesting inflammation. B: An 83-year-old woman was admitted for bone pain and asthenia. Analysis revealed anemia, thrombocytopenia, hypercalcemia (12.6 mg/dL) and beta-2 microglobulin 22687 ug/dL. Skeletal survey demonstrated diffuse osteolytic lesions. C: A 58-year-old man was admitted for bilateral pneumonia, AKI, anemia and hypercalcemia (11.9 mg/dL). He reported recent multiple respiratory tract infections. During hospitalization, he presented epistaxis and a nasal ulcerative neoplasm was found.

Clinical Hypothesis: Although clinical presentations were different, multiple myeloma (MM) was suspected. MM is a neoplasia of plasma cells producing monoclonal immunoglobulins that might present in various forms.

Diagnostic Pathways: Serum protein electrophoresis revealed a monoclonal IgG peak in all patients, who subsequently underwent bone marrow (BM) biopsy and aspirate. Patient A was the only one with a BM plasma cells percentage <10, but immunophenotyping confirmed the MM diagnosis in every patient. A nasal lesion biopsy was performed in patient C, with histopathologic confirmation of a bony plasmacytoma.

Conclusion and Discussion: MM diagnosis requires the combination of end-organ damage and a clonal BM plasma cells $\geq 10\%$. Some patients may not reach this percentage due to patchy BM involvement, but histopathology can confirm the diagnosis. Despite having common features, these cases demonstrate the heterogeneous presentations of MM. Therefore, high clinical suspicion and subsequent laboratory evaluation are crucial to promptly establish the diagnosis and start treatment.

PV735 / #1489

LIFE ON THE HEMOGLOBIN'S LIMIT

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Case Description: Anemia is a common diagnosis in clinical practice, often with a multifactorial etiology among the geriatric population. However, its asymptomatic presentation with extreme hemoglobin values is uncommon. We present the case of

a 84-year-old woman, with a personal history of only unmedicated asthma, referred to the emergency department of our hospital for severe anemia in outpatient analyzes. On objective examination described as "pale but hydrated skin and mucous membranes, anicteric sclerotic and remaining examination without changes, namely bloodless rectal examination.

Clinical Hypothesis: Analytically, she presented hypochromic microcytic anemia with anisocytosis (hemoglobin 2.7 g/dL, MCV 61.8 fL; MCH 15.2 pg, MCHC 24.5 g/dL; RDW-CV 33.8%), lactic dehydrogenase 319 U/L, seric iron <10 ug/dL, transferrin 211 mg/dL and ferritin 11.2 ng/mL and without folic acid deficiency (7.7 ng/mL) or vitamin B12 (242 pg/mL). She performed 3 units of erythrocyte concentrate with good transfusion recovery and is hospitalized for study. Clinically, sustained stability and no evidence of blood loss.

Diagnostic Pathways: Relevant in the study, the lower digestive endoscopy revealed an exophytic lesion that occupies the entire circumference in the rectum, at 7 cm from the external orifice of the anal canal, and which conditions unremitting stenosis to the colonoscope. The pathological anatomy of the lesion has showed adenocarcinoma of a tubular pattern, with signs of ulceration. She is transferred and oriented to the specialty of General Surgery for continuation of care.

Conclusion and Discussion: The present case aims to show the asymptomatic presentation of a severe anemia and potentially compromising survival.

PV736 / #1513

CHEST MASS IN A YOUNG WOMAN: BEYOND BREAST DISEASE

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Case Description: This is a case of a previously healthy 25-year-old female that presented to the emergency department with a 4-month history of painful left breast mass, associated with fever, fatigue, anorexia and weight loss. On physical examination she had fever and a painful mass on the upper outer quadrant of the left breast, without other inflammatory signs.

Clinical Hypothesis: At this moment, the most probable diagnostic hypothesis were a malignant disease (like breast cancer) or an inflammatory disease (mastitis, breast or soft tissue abscess).

Diagnostic Pathways: On laboratory exams she had pancytopenia, LDH elevation, marked ferritinemia, hypertriglyceridemia and mild hypofibrinogenemia. The peripheral blood smear had schyzocytes. Breast ultrasound suggested mastitis. She performed a CT scan that showed a 8x3 cm mass on the deep region of the left breast, with invasion of the pectoralis major muscle, suggestive of sarcoma. She had also left axilar lymphadenopathies

with less than 1 cm. The lesion biopsy confirmed the diagnosis of anaplastic large-cell lymphoma with ALK expression. Bone marrow biopsy revealed abundant images of hemophagocytosis. PET scan showed a metastasis on the left adrenal gland. It was started chemotherapy (CHOEP) with a favourable response in the following months.

Conclusion and Discussion: We present a case of a young woman with anaplastic large-cell lymphoma, ALK+, stage IV-B (Ann-Harbor), associated with hemophagocytic syndrome. This type of neoplasms is frequently associated with a poor prognosis. ALK positivity predicts a better therapy response. In this case de IPI score is 2, with an estimated 5-year survival of 68%.

PV737 / #1523

ASSESSMENT OF VENOUS THROMBOEMBOLISM RISK FACTORS ACCORDING TO DIFFERENT RISK-ASSESSMENT MODELS IN INTERNAL MEDICINE INPATIENTS

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Background and Aims: VTE prevention must be assessed correctly. This study aims to describe the VTE risk factors of acutely ill medical patients in an Internal Medicine (IM) ward.

Methods: An observational retrospective study is presented to assess high VTE risk (Padua score ≥ 4 , IMPROVE-VTE score ≥ 2) and high hemorrhagic risk (IMPROVE-Bleeding score ≥ 7) in IM patients.

Results: A total of 281 patients from the Emergency Room (ER) were admitted to IM, with 57.65% males and a mean age of 69.63 y.o. (IC95% 97.40-71.86, range 15 to 102). 94.3% of patients presented at least one risk factor to VTE assessed by Padua score. There was high variability for VTE risk classification as Padua score determined high risk in 44.78% of patients compared to 28.47% by IMPROVE-VTE. Measurement of agreement between Padua and IMPROVE-VTE scores showed a kappa value of 0.59 (IC95% 0.48-0.70). High hemorrhagic risk was only present in 10.68% of patients. Most patients (53.74%) were admitted due to an acute infectious disease, although such risk factor is only assessed in Padua score. Also, a relevant proportion of obese patients was noted, as 24.56% of the sample had an IMC ≥ 30 kg/m², 30.0% of those presenting weights over 100 kg.

Conclusions: Most patients admitted to an IM ward present risk factors for VTE. Padua and IMPROVE-VTE scores present high variability for VTE risk classification. Risk-assessment models might benefit from review to better adapt to IM patients, mainly concerning the role of acute infectious disease and obesity as prothrombotic factors.

PV738 / #1525

VENOUS THROMBOEMBOLISM PROPHYLAXIS FOR HOSPITALIZED PATIENTS: ASSESSMENT OF CORRECT INDICATION FOR PROPHYLAXIS APPLIED TO INTERNAL MEDICINE INPATIENTS ACCORDING TO DIFFERENT RISK-ASSESSMENT MODELS

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Background and Aims: VTE prevention must be assessed correctly. This study aims to describe the VTE risk factors of acutely ill medical patients in an Internal Medicine (IM) ward and assess the correct prescription of VTE prophylaxis.

Methods: An observational retrospective study was performed to assess VTE and hemorrhagic risk through risk-assessment models and determine the correct indication for VTE prophylaxis (Padua score ≥ 4 , IMPROVE-VTE score ≥ 2) in patients admitted to IM during September 2019.

Results: A total of 281 patients were admitted from the Emergency Room (ER) to the IM ward, with 57.65% males and a mean age of 69.63 y.o. (IC95% 97.40-71.86, range 15 to 102). VTE prophylaxis was prescribed at the ER in 41.58% of the patients admitted to IM, while prescription increased to 51.61% of those patients after IM ward evaluation (difference 10.03%). At the ER, correct indication according to Padua and IMPROVE-VTE scores was only present in 61.05% and 60.00% of the cases, respectively; whilst correct indication at IM wards was, correspondingly, 61.83% and 58.60%. Both at ER and IM, incorrect indication of VTE prophylaxis was mostly due to its omission. Also, VTE prophylaxis, when prescribed, had incorrect dosing in 25.32% of the ER patients and in 17.70% of the IM ones.

Conclusions: At the ER and IM wards 4 of each 10 patients receive incorrect VTE prophylaxis, mainly due to its omission. Also, up to 1 of each 4 patients receive incorrect dosing of VTE prophylaxis when prescribed.

PV739 / #1528

CANCER OF UNKNOWN PRIMARY SITE: A DIAGNOSTIC CHALLENGE

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Background and Aims: A 62-year-old man with a history of active smoking was admitted at the Internal Medicine department due to insidious weight loss for 2 months and pain in the right thigh associated with a pathological subtrochanteric fracture. A computed tomography (CT) showed additional soft tissue thickening around the left femur, destruction of the second dorsal vertebra (D2) and a lytic lesion in the right eighth rib, all suggesting neoplastic involvement. A normocytic anemia was present but the remaining laboratory tests were normal. D2 lesion biopsy revealed a metastatic mucinous adenocarcinoma.

Methods: In men, bone metastases as the first manifestation of adenocarcinoma suggest a prostatic or pulmonary origin. However, considering the mucinous histology, a primary cancer of the gastrointestinal (GI) tract was also likely.

Results: Study of GI tract (upper, lower digestive and capsule endoscopy) was unremarkable, as the prostate-directed imaging and PSA levels. A second CT confirmed the bone lesions, mediastinal lymphadenopathies and found an 8mm nodule in the right upper pulmonary lobe, all with increased uptake of 18F-FDG on PET/CT imaging. These findings prompted histologic re-evaluation of the D2 lesion biopsy with immunohistochemical studies, showing focal TTF1 and diffuse CK7 expression (CK20 absence), pointing at a primary pulmonary origin.

Conclusions: Poorly differentiated metastatic adenocarcinomas represent a wide spectrum of tumors. A differential diagnosis should consider even the most inconspicuous findings, such as an 8 mm pulmonary nodule, allowing a more accurate diagnosis in order to select the most appropriate therapeutic regimen.

PV740 / #1530

OSTEOLYTIC LESIONS - A DIFFERENTIAL DIAGNOSIS

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Case Description: 83-year-old man, personal history of pulmonary tuberculosis in youth and a pulmonary nodule (no

further investigation because patient missed the subsequent medical appointments) was admitted due to increasing intensity back pain for a month, with a few days walking disability. Patient also referred 15 Kg weight loss in 6 months, anorexia and night sweats. Objectively identified painful palpation of lumbosacral region, preserved muscle strength, gait limited by pain. Blood tests showed normocytic anaemia, elevated lactate dehydrogenase, normal renal function. Spine computed tomography (CT) revealed L1 and L4 fractures and multiple lytic lesions, suggestive of bone metastasis.

Clinical Hypothesis: Male patient with a known pulmonary nodule and now multiple bone lesions, strongly suggest metastatic lung cancer.

Diagnostic Pathways: Chest-abdomen-pelvis CT confirmed the multiple bone lesions and pulmonary nodule (stable dimensions). Further blood tests revealed homogeneous spike-like peak in the gamma-globulin region on protein electrophoresis; increased IgG, free kappa chains and β 2-microglobulin levels; monoclonal gammopathy IgG/kappa on immunofixation. Spinal magnetic resonance imaging showing diffuse tumoral infiltration at multiple locations, suggesting haematological neoplasm. Biopsy of a rib lesion confirmed the IgG/Kappa multiple myeloma (MM).

Conclusion and Discussion: MM is a relatively uncommon cancer, affects more frequently old male adults and should be suspected in the presence of the CRAB features (hypercalcemia, renal failure, anemia and bone lesion), which our patient only had partially (CRA⁺B⁺). However, the clinical outcome depends on the interaction between the MM features and the patient-specific factors. In this case, the disease's advanced stage, old age and bad performed status of the patient contribute to a worse prognosis.

PV741 / #1542

THROMBOCYTOPENIA IN A PATIENT WITH INTERMEDIATE-HIGH RISK PULMONARY EMBOLISM

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Case Description: A 50-year-old male patient presented to the emergency department with acute onset dyspnoea, without haemodynamic instability. Well's score revealed a moderate probability of pulmonary embolism and computed tomography (CT) angiogram showed a saddle bilateral embolus. Fibrinolysis treatment with alteplase and subsequent weight adjusted unfractionated heparin therapy was started, but the patient was obese (BMI 45 kg/m²) and proper anticoagulation with unfractionated heparin (UFH) was hard to achieve. Despite initial improvement, following three days, new onset severe respiratory insufficiency and right heart failure developed with CT angiogram

revealing thrombus progression. Systemic fibrinolysis treatment was started, followed by UFH, switched to low molecular weight heparin, adjusted with anti-factor Xa activity. On the 8th day, platelet count fell abruptly to 38,000/uL.

Clinical Hypothesis: A high probability 4Ts score with a positive screen for anti-heparin/platelet factor 4 antibodies led to a diagnosis of type II heparin induced thrombocytopenia (HIT).

Diagnostic Pathways: Anticoagulation was switched to fondaparinux without further thrombosis. Platelet count normalized 12 days after heparin suspension. The patient was discharged on oral anticoagulation with dabigatran 150 mg twice daily without bleeding or thrombotic complications.

Conclusions and Discussion: Thrombus progression and/or a significant platelet count decrease under heparin must raise suspicion of HIT. Parenteral anticoagulation with direct thrombin inhibitors is the first line treatment, although the off-label use of fondaparinux is widely employed. Even without thrombotic events, following a diagnosis of HIT, the patient should be anticoagulated for at least one to three months and direct oral anticoagulants are a safe option.

PV742 / #1545

BRAIN TUMOR ASSOCIATED WITH A RAPID FATAL EVOLUTION

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Case Description: This is a case of a 59-year-old male with a history of anxiety disorder, former smoker and alcohol consumer. Without regular medication. He presented to the emergency department with acute dysarthria and slowness of speech, associated with right frontotemporal headache and constitutional symptoms with 3 months of evolution. On physical examination he also had a mild gait alteration.

Clinical Hypothesis: At this moment, the most probable diagnosis is a brain malignancy (primary or secondary).

Diagnostic Pathways: Laboratory exams as well as cerebrospinal fluid analysis were unremarkable. Brain MRI presented three space-occupying lesions (right thalamus, right basal ganglia and right temporal lobe) suggestive of malignant etiology. Cervico-thoraco-abdomino-pelvic CT had no evidence of metastasis. Brain MRI with spectroscopy set glioblastoma multiforme as the main diagnostic hypothesis, which was confirmed by cerebral biopsy, IDH-wildtype. He was discharged from hospital with Neurosurgery consultation scheduled, to start treatment. He returned to the emergency department one week after with impaired consciousness that rapidly progressed to coma. Brain CT showed frontal hemorrhage and EEG had an global isoelectric tracing. The patient died the same day.

Conclusion and Discussion: We present the case of a glioblastoma multiforme, IDH-wildtype, with a rapid fatal conclusion (one week after diagnosis). The treatment includes surgical resection with adjuvant chemotherapy and/or radiotherapy. Even with treatment, this malignancy has a high rate of recurrency and a estimated survival of one to two years in most patients. The lack of IDH mutations is associated with a poorer prognosis.

PV743 / #1570

HIGH-GRADE PLEOMORPHIC SARCOMA AS A DIFFERENTIAL DIAGNOSIS FOR AN ENLARGING THIGH SOFT TISSUE MASS

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Case Description: 54-year-old patient with a 2-month history of fatigue, anorexia, night sweats and unintentional weight loss, plus a painful left inguinal tumefaction 1 week before. He reported no other symptoms. His past medical history was remarkable for being diagnosed with left femoral head necrosis 4 months before and being submitted to total left hip arthroplasty (TLHA) 1 month before. Blood analysis revealed neutrophilia, hypereosinophilia and increased erythrocyte sedimentation rate, C-reactive protein and lactate dehydrogenase. During the first days of hospitalization, fever ensued and a progressively growing and increasingly painful soft mass on the upper third of the thigh was noted. Blood cultures were collected and empirical broad-spectrum antibiotics were initiated.

Clinical Hypothesis: Infectious complication of TLHA. Metallosis and pseudotumoral lesions surrounding the metal implant. Tumoral growth.

Diagnostic Pathways: Cultural exams from blood and periprosthetic material were negative. CT scan of the left thigh revealed increased nodular soft tissue volume around the hip. The patient was submitted to TLHA revision and extraction of foreign material. Biopsies of the abnormal tissue surrounding the implant allowed the definitive diagnosis of a high-grade pleomorphic sarcoma.

Conclusion and Discussion: The patient was transferred to the musculoskeletal tumors' unit, where he was submitted to left leg amputation. Unfortunately, he died after surgery. This type of sarcoma is highly aggressive, with a fast growth rate. A timely biopsy is extremely important for correct diagnosis and effective treatment. Delays in diagnosis and treatment can greatly worsen survival odds.

PV744 / #1595

UPPER VENA CAVA SYNDROME SECONDARY TO LUNG ADENOCARCINOMA

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Case Description: A 62-year-old male presented to the Emergency department due to bilateral edema of the upper limbs, neck and face. Jugular engorgement could be seen and the thoracic CT described an adenopathic conglomerate of 7.5x6x12 cm, with compression and sub-total occlusion of the superior vena cava with thoracic collateral circulation; it also presented a spiculated mass on the right upper lobe with about 3.5 cm of larger axis. Phlebography of the central vessels was performed and a stent was placed in the superior vena cava with subsequent clinical improvement. PET demonstrated high metabolic malignant neoplasm of the lung with ganglion and bone metastasis. The patient performed an CT-guided biopsy of the lung mass, which confirmed lung adenocarcinoma, and subsequently started palliative chemotherapy.

Clinical Hypothesis: The superior vena cava syndrome represents the obstruction of the venous return from the superior vena cava to the right atrium and it may have multiple etiologies. Classically, the infectious causes were responsible for most of these cases but this tendency was gradually replaced by thoracic neoplasms.

Diagnostic Pathway: Male gender and smoking habits are recognized risk factors to lung cancer. At physical examination our patient presented bilateral edema of the upper limbs, neck and face, suggesting venous occlusion.

Conclusion and Discussion: Currently, superior vena cava syndrome occurs mostly in the context of neoplasms, specially lung adenocarcinoma, more frequent in men and smokers. The diagnosis should be performed as early as possible, because of the severity of this entity itself and also because of its usual etiology.

PV745 / #1598

LIVER METASTASIS OF SQUAMOUS CELL CARCINOMA OF THE PHARYNX

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Case Description: A 58-year-old male, smoker, presented with bilateral cervical adenomegalies in the II, IV, Va and Vb areas, tender and immobile, with significant growth over six months. During work-up hepatic nodules were found in abdominal CT, confirmed by MRI.

Clinical Hypothesis: Tumoural - Head and Neck (HN). Cancer was a strong hypothesis, albeit in an atypical pattern; for lymphoma the metastatic pattern was very atypical; gastrointestinal tumour was unlikely to affect the II and Va cervical regions. Infection - acute HIV infection, secondary syphilis, EBV, CMV, Paramyxoviridae, toxoplasmosis, rubeola were hypotheses; HBV could cause Hepatocellular carcinoma but adenomegalies are more typical of acute infection; Mycobacteria were unlikely as there were no constitutional symptoms; the lack of fever made Brucellosis, Leptospirosis, Typhoid fever unlikely. Immunological - Sarcoidosis or Amyloidosis were possible; IgG4-Related Disease and other chronic granulomatosis were unlikely as other systemic manifestations were lacking.

Diagnostic Pathways: Ultrasound revealed highly aggressive adenomegalies. Nasofibrolaryngoscopy was normal. The fine-needle aspiration identified cells compatible with metastatic squamous cell carcinoma (SCC). The CT and MRI scans found no primary tumour. The hepatic nodes were very suggestive of metastases in the MRI and PET-scan. Hepatic biopsy showed SCC. Finally, nasopharyngeal blind biopsies revealed non-queratizing SCC.

Conclusion and Discussion: This is a case of HN SCC with atypical cervical Va, Vb and hepatic metastasis, the latter being particularly rare (4.4%)^[1]. Palliative chemotherapy (cisplatin+gemcitabine) was started, with diminishing adenopathies.

^[1]Marcy PY et al. Liver metastases from head and neck squamous cell carcinomas: radiological and biological features. *Onkologie* 2004;27(2): 157-60.

PV746 / #1614

A RARE MANIFESTATION OF A FREQUENT DISEASE

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Case Description: 47-year-old man, active smoker (20 pack-year) with history of alcoholic liver cirrhosis (MELD 8) was admitted in the emergency department due to oliguria for the past 2 days, nonspecific lower back pain and weight loss of 10 Kg in 6 months.

Clinical Hypothesis: Urinary obstruction (neoplasia?)

Diagnostic Pathways: Blood analyses revealed a normocytic normochromic anemia (Hb 13.3 mg/dL), lymphopenia ($0.77 \times 10^9/L$), thrombocytopenia ($97 \times 10^9/L$), urea 155.2 mg/dL, serum creatinine 7.35 mg/dL, PSA 98.15 ng/dL e urinalysis within normal values. Renal ultrasound showed a bilateral pyelocalyceal dilatation (20 mm on the right and 14 mm on the left). Abdominal computed tomography unveiled a large adenopathic mass involving the large abdominal vessels, with extension to the pelvic cavity, suggesting lymphoproliferative disease. The computed tomography of the thorax shown an adenopathy on the left

supraclavicular region. The anatomopathological study of the bone marrow did not show infiltration by foreign cells. The enlarged prostate volume and a stone-like consistency to the touch, led to a biopsy, whose anatomopathological study described bilateral acinar adenocarcinoma with little differentiation (Gleason 9). Left supraclavicular adenopathy was conclusive for ganglionic metastasis of primary prostatic adenocarcinoma.

Conclusion and Discussion: The relief of the urinary obstruction was achieved by bilateral percutaneous nephrostomy. Antiandrogenic chemotherapy was initiated after multidisciplinary team discussion, and the case was transferred to the oncology team. Although this is a relatively frequent pathology, the diagnostic course proved to be challenging, due to its rare clinical manifestations that appear only in 6% of the cases.

PV747 / #1617

PARVOVIRUS B19 AND VEGETARIANISM: A CASE OF PANCYTOPENIA AND HEMOLYTIC ANEMIA

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Background and Aims: Vitamin B12 deficiency is a well known cause of megaloblastic anemia and pancytopenia. Parvovirus B19 (PVB19) has a variety of clinical manifestations depending on the clinical and hematological status of the host, it can be associated with hematopoietic disorders, including pancytopenia.

Methods: We report a case of a 84 year old Indian vegetarian man, with history of high blood pressure. Brought to the emergency department due to fatigue and headache, lasting 5 days. Physical examination revealed discoloration of skin and mucosa. Initial bloodwork: macrocytic anemia Hb 4.4 g/dL, Htc 12.9%, MCV 114.3 fL, MCH 39.4 pg, RDW 18.9%, reticulocyte 3.04%, absolute reticulocyte count 1.7, reticulocyte index 0.86, leukopenia $0.7 \times 10^3/uL$, N 53.7%, L 35.2%, and thrombocytopenia 24,000 platelets. ESP: compatible with myelodysplastic syndrome/medullar aplasia. Normal coagulation. Ferritin 509 ng/mL, Transferrin 1.23g/L, Iron serum 137. Total bilirubin 1.4 mg/dL. LDH 4303 U/L. Haptoglobin 1mg/dL. Vit B12 50 pg/mL, Folic acid 4.6 ng/mL. The patient was admitted in an Internal Medicine infirmary for treatment and study of pancytopenia.

Results: Vit B12 deficit was corrected via intra-muscular administration. In serological analysis, PVB19 IgG and IgM was detected and treatment with immunoglobulin was started, the need for blood transfusions decreased. The patient was later discharged.

Conclusions: Several case reports described the successful use of immunoglobulin in the treatment of anemia caused by PVB19 infection, more evidence is needed to support the efficacy of this treatment. This case report is a useful reminder that vitamin B12 deficiency and parvovirus B19 infection are two conditions that in synchrony can cause severe pancytopenia.

PV748 / #1622

MESENTERIC INFLAMMATORY MYOFIBROBLASTIC TUMOUR

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Case Description: A 68-year-old male patient presented in January 2020 with epigastric pain, intense, alleviated with dorsal decubitus, with asthenia and hyperhidrosis for three months. He was a former smoker of 40 pack-years. He had an increased level of C-reactive protein (59.4 mg/L) and the CT scan showed densification of the mesentery, without cleavage planes, with 82x67x72 mm, surrounding the superior mesenteric vessels and extending to the left anterior pararenal fascia and pancreatic tail.

Clinical Hypothesis: A painful mesenteric mass with constitutional symptoms suggests a tumour. Inflammatory entities such as IgG4-related disease were unlikely, as their other systemic manifestations were absent.

Diagnostic Pathways: The biopsy identified inflammatory myofibroblastic tumour (IMT), without malignancy. Being non-resectable, the multidisciplinary team decided for corticotherapy. In March he began prednisolone 60 mg qd decreasing 10 mg qd per month, with symptom resolution in two weeks. In April the lesion improved slightly overall, albeit with aggravating perirenal densification and extension to the paracolic gutters and intestinal ansa. The pathology was reviewed, and the main hypothesis now raised were sclerosing mesenteritis or IMT. The multidisciplinary team decided to maintain corticotherapy. Since then, the mass decreased to 43 mm but still reaches the mesenteric vessels, intestinal ansa, anterior pararenal fascia and perirenal space.

Conclusion and Discussion: IMT is a rare entity. Due to the lack of evidence, its treatment is a true clinical challenge, based case reports. Surgical resection is the first-line, with ill-defined medical alternatives. As this case was irresectable, corticotherapy was used as second-line treatment.

PV749 / #1623

BENIGN METASTASIZING LEIOMYOMA

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Case Description: 40-year-old woman with a history of intramural leiomyoma of the uterus and adenosis and fibrosis of the mammary glands, without signs of malignancy. Admitted with a two months history of pleuritic chest pain in the left hemithorax, associated

with unquantified weight loss. No major changes to the objective examination. Chest computed tomography (CT) revealed multiple nodular lesions dispersed by the different pulmonary lobes bilaterally suggestive of secondary involvement.

Clinical Hypothesis: Admitted for study of possible metastatic occult neoplasia.

Diagnostic Pathways: From the study carried out: tumor markers with slight elevation of CA 125. Abdomino-pelvic CT showed a slight prominence of the ovaries and a bone lesion located at the level of D4 and D8. Abdominal-pelvic nuclear magnetic resonance (NMR) without changes. Breast ultrasound and bronchofibroscopy with no signs suggestive of malignancy. Upper digestive endoscopy revealed two benign ulcers. Lumbar NMR identified a change in the D8 body signal with characteristics suggestive of being an atypical/aggressive hemangioma or a metastatic lesion. Transthoracic biopsy revealed to be a pulmonary mass consisting of a smooth muscle tumor, with characteristics of leiomyoma. Referred for sarcoma consultation where the presence of a 22q11 ~ 12 deletion (SMARCB1 / KREMEN1) was documented in 85% of the analyzed cells compatible with metastatic benign leiomyoma. She started treatment with tamoxifen.

Conclusion and Discussion: Leiomyomas are benign tumors of smooth muscle cells and are the most common of all tumors that affect the female genital tract and are most often found in the lung. They have a slow evolution and a good response to tamoxifen.

PV750 / #1628

CARDIAC TAMPONADE AS AN INITIAL MANIFESTATION OF LUNG ADENOCARCINOMA

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Case Description: A 57 year old man presented to the Emergency due to progressive edema of the right upper limb and dyspnea in the previous 6 days. While awaiting evaluation, he presented altered state of consciousness with psycho-motor agitation, profuse sweating, tachypnea, tachycardia and hypotension. Arterial gasometry revealed respiratory alkalemia with type 1 respiratory failure and the thoracic CT ruled out pulmonary embolism, revealing large pericardial effusion (maximum of 3 cm); It also described an adenopathic conglomerate of 7.8x4.5 cm. A small soft tissue lesion with cavitation in the lower lobe of the right lung with pericardial contiguous invasion made the neoplastic hypothesis more likely. A point-of-care echocardiography confirmed cardiac tamponade, and emergent pericardiocentesis was performed, draining 900 ml of hematic fluid, with immediate recovery. The fluid was sent for study and neoplastic cells of lung carcinoma were identified. The excision of a cervical ganglion concluded to be a metastasis of a lung adenocarcinoma. It was

impossible to remove the pericardial drain because the patient maintained a large pericardial effusion. It was decided to create a surgical pericardium-pleural window.

Clinical Hypothesis: Up to 30% of large pericardial effusions have an oncologic etiology, from which lung neoplasia is the most common.

Diagnostic Pathway: Most patients with pulmonary adenocarcinoma have respiratory complaints, being cardiac tamponade a rare form of initial clinical presentation.

Conclusion and Discussion: Cardiac tamponade is rarely the first manifestation of lung cancer and pericardiocentesis is the initial therapeutic approach. Neoplastic effusions may recur in short term and pericardial-pleural window may be needed.

PV751 / #1629

ONE LUNG, ONE THYMOMA

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Case Description: A 47 year old man presented to the ER for productive cough with purulent sputum and thoracalgia in the week before. His past medical record was unremarkable. In the physical examination there was no vesicular murmur in the two lower thirds of the left pulmonary hemicampus. The blood samples showed no abnormalities. He underwent chest radiography which identified a volumous mass occupying almost the entire left pulmonary hemicampus. CT-scan describes a regular volumous lobulated formation adjacent to the anterior mediastinum with about 18.3x13.6x16.9 cm. Analysis of the anatomical piece resulting from surgical removal describes a mass measuring 23x20x12 cm, weighing 1585 g, completely covered with a smooth and shiny capsule. Microscopically it had nodular morphology defined by hyaline fibrous septa, showing areas of lymphocyte predominance (CD3), interspersed with B lymphocyte nodules, CK5.6, confirming the diagnosis of thymoma type B1/B2/B3.

Methods: Clinical Hypothesis: Although thymoma is rare, it's the most frequent tumour of the anterior mediastinum (approximately 30% of mediastinal masses in adults). They may be non-invasive (encapsulated - 2/3 of cases) or invasive. WHO classifies histological types by letters A, AB, B1, B2, B3 and C. Types AB and B2 are the most common and type A is the rarest.

Diagnostic Pathway: Thoracic radiography is part of cough etiological investigation algorithm, because it may give fast and important information. After this exam, neoplastic causes became the most probable.

Conclusion and Discussion: Thymomas are rare slow-growing generally benign neoplasms that radiographically present as round and regular structures, with well-defined margins. Once identified, the treatment of choice is complete thymoma resection.

PV752 / #1720

CYTOPENIAS IN INTERNAL MEDICINE: ETIOLOGICAL PROFILE : ABOUT 139 CASES

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Background and Aims: Cytopenias are a common situation during hospital activity in internal medicine departments. The aim of this study is to describe the etiological profile of the different types of cytopenia.

Methods: It is a retrospective and descriptive monocentric study including 139 cases of cytopenias collected in the internal medicine department of the CHU Sahloul, Sousse.

Results: Concerning pancytopenias, deficiency causes were the most frequent aetiologies, followed by malignant haemopathies and infectious causes. For anemia associated with thrombocytopenia, vitamin B12 deficiency remained the most frequent cause, followed by infectious causes, portal hypertension, systemic lupus erythematosus (SLE), hematological malignancies, Evans syndrome and malaria. For anemia associated with leukopenia, the most common etiology was SLE, followed by hematologic malignancies, infectious causes and hypothyroidism. For leukopenia associated with thrombocytopenia, infectious causes were the most common etiology followed by myelodysplastic syndrome and SLE. For isolated leukopenia, the two most common causes were SLE and infectious causes. This was followed by iatrogenia, hypothyroidism and variable common immune deficiency. For isolated thrombocytopenia, infectious causes were the most common, followed by SLE, iatrogenia and one case of non-Hodgkin's malignant lymphoma.

Conclusions: Our study showed a variety of etiologies found following the exploration of cytopenias in a department of internal medicine. Deficiency, infectious and SLE are the most common causes.

PV753 / #1735

OCCULT NEOPLASIA AND ITS DIFFERENT FACES

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Case Description: Male, 59 years old, caucasian, admitted to due to sudden binocular horizontal diplopia. The patient had history of smoking (50 smoking pack years) and alcohol abuse. The physical examination revealed ophthalmoplegia in left eye abduction, without other neurologic finds.

Clinical Hypothesis: The VI cranial nerve palsy can be caused by any acquired lesion in its course, from the nucleus to lateral rectus muscle. With this case we report a less common cause of isolated abducens nerve palsy.

Diagnostic Pathways: Laboratory tests discovered normocytic normochromic anemia and hyponatremia. No alterations were seen in the cranial computed tomography (CT). The magnetic resonance imaging of the brain revealed a signal anomaly in the clivus region, probably caused by a secondary lesion. The thoracic CT scan showed multiple enlarged lymph nodes in the upper abdomen. The study was completed by an abdomen and pelvic CT scan with contrast injection where it could be seen multiple hepatic nodular lesions, compatible with secondary deposits, extensive bone blastic metastasis in pelvic bones and all vertebrae englobed in the study, and a nonspecific hypercaptant prostatic lesion. The prostate specific antigen was within normal range (0.3 ng/mL). The hepatic lesions biopsy revealed infiltration by a poorly differentiated neoplasm, with squamous cell differentiation by immunohistochemistry.

Conclusion and Discussion: The patient was discharged and referred to oncology consultation for further study. Cerebral metastasis are frequent in cancer patients, more commonly in later stages of the disease, but can also be the first manifestation of a tumor of unknown origin, reinforcing the need for early diagnosis.

PV754 / #1745

HEMOPHAGOCYtic LYMPHOHISTIOCYTOSIS COMPLICATED BY TRANSFUSION RELATED ACUTE LUNG INJURY IN A 73 YEAR OLD ADULT

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Background and Aims: Hemophagocytic lymphohistiocytosis (HLH) is a rare life-threatening condition in which dysregulated cytotoxic T-cell, macrophage and natural killer (NK) cells lead to an hyperinflammatory state. Herein, we describe a case of a 73-year-old woman who presented with HLH triggered by parvovirus B19 (PVB19) infection who developed transfusion-related lung injury (TRALI) later in the course of the disease.

Methods: A 73-year old female was transferred to our hospital due to fever of 5 days' duration and a petechial rash. Laboratory tests showed neutropenia ($<1,000/\mu\text{L}$), thrombocytopenia ($66,000/\mu\text{L}$), increased levels of liver enzymes and lactic dehydrogenase. The patient was initially started on ceftriaxone and doxycycline. The following day, an extensive work-up revealed extremely high ferritin levels ($30,000 \text{ mg/dL}$).

Results: A bone marrow examination demonstrated hemophagocytosis; intravenous dexamethasone 10 mg/m^2 was promptly initiated followed by intravenous infusion of immunoglobulin. IgM antibodies against PVB19 were evident on further investigation. Despite clinical and laboratory improvement the patient suffered an upper gastrointestinal bleeding on day 7 from treatment initiation and required blood transfusions. After 3 packed red cells transfusions, the patient acutely

developed dyspnea; a chest x-ray showed bilateral infiltrates, and a putative diagnosis of TRALI was made. The patient was transferred to the ICU unit; laboratory parameters deteriorated and succumbed two days later.

Conclusions: This was a case of HLH associated with PVB19 infection. Despite initially successful management, the patient developed refractory TRALI possibly related to immune dysregulation induced by HLH.

PV755 / #1749

A PAROXYSMAL NOCTURNAL HEMOGLOBINURIA HIDING IN THE DARK

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Case Description: A 62-year-old woman presented to the Emergency Room complaining of generalized abdominal pain, asthenia, and night sweats for the past 3 weeks. On admission she had intense abdominal pain, but remaining physical exam was unremarkable. Laboratory findings included anemia (Hb 8.5 g/dL ; VGM 103 fL), thrombocytopenia $38,000/\text{mm}^3$ and elevated lactate dehydrogenase. Urinalysis was negative for blood and red blood cells. Abdominal CT scan revealed acute thrombosis of the portal vein and thickening of the distal duodenum wall.

Clinical Hypothesis: She was admitted for further investigation: reticulocyte production index [IR1] 1.6% , total bilirubin 0.90 mg/dL ($0.1-1.1$), haptoglobin $<10 \text{ mg/dL}$, negative Coombs' test, and Vitamin B12 161.0 pg/mL . A biopsy of duodenum showed focal chronic inflammatory infiltrate with corion hemorrhage and edema of mucosa and submucosa vessels. Aplastic anemia and myelodysplastic syndrome were excluded, as well as thrombophilia and malignancy. Flow cytometry of peripheral blood exhibited presence of paroxysmal nocturnal hemoglobinuria (PNH) clones in neutrophils, monocytes and erythrocytes. Diagnosis of PNH type II and III was made.

Diagnostic Pathways: Patient was started on anticoagulation, cyanocobalamin and eculizumab with great tolerance. The findings on duodenum biopsy were interpreted as small bowel ischemia due to PNH. She maintains treatment and regular follow-up.

Conclusion and Discussion: PNH is a rare and underdiagnosed condition, with serious consequences. Most frequent presentations include intravascular hemolysis, nocturnal hemoglobinuria, and venous thrombosis. Concomitant findings could delay the diagnosis; therefore a high level of suspicion is required. This case emphasizes the importance of full clinical assessment, which made possible early diagnosis and treatment.

PV756 / #1753

A RARE CASE OF ANTERIOR MEDIASTINAL MASS AND REFLECTIONS OF COVID-19 PANDEMIC

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Case Description: A 46-year-old male was admitted to the Emergency Room complaining of anorexia, fatigue, and weight loss (15 Kg) for the last 4 months. He was not able to contact his primary care physician and delayed seeking help because of the COVID-19 pandemic. Past medical history included untreated Hepatitis C and previous intravenous drug abuse; he was otherwise a healthy man. Laboratory tests: hemoglobin 6.3 g/dL, leukocytes 30440/L and C-reactive protein 16 mg/dL (<5.0); liver enzymes were within normal range. He had hepatomegaly on abdominal ultrasound and chest X-Ray showed no abnormalities.

Clinical Hypothesis: He was admitted to further investigation. Infection or neoplasia were our main concerns.

Diagnostic Pathways: There was no evidence of infection and endoscopic study was normal. Thoracoabdominopelvic computed tomography showed an 85x75 mm antero-superior mediastinal mass. Biopsy revealed a poorly differentiated neoplasm, consistent with embryonal carcinoma. Testicular ultrasound was normal. Interestingly, Alpha Fetoprotein and Human Chorionic Gonadotropin hormone were both negative. At this point, general condition of the patient was deteriorating fast (ECOG 4), and he did not meet criteria for treatment. He died a month later.

Conclusions: Mediastinal embryonal carcinoma is rare with poor prognosis. However, chemotherapy followed by surgical resection seems to improve prognosis. COVID-19 pandemic is having great impact on public health, whether motivated by patients' fear of going to the hospital or a delay in medical care. Authors believe that belatedly diagnosis could have contributed to this patient premature death.



AS12. ORGANIZATION AND QUALITY OF HEALTH CARE

PV757 / #135

ORGANIZING THE HOSPITALIZATION OF ELDERLY PATIENTS DURING THE COVID-19 PANDEMICS-OUR EXPERIENCE

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Background and Aims: Elderly patients are the ones most affected by the COVID-19 pandemics. Long term care facilities, specialized hospitals for geriatric medicine and hospices were the places with the highest risk of deaths from COVID-19. These kind of institutions took different measures to protect patients and prevent infection from entering them.

Methods: The aim of the study was to see the number of hospitalized patients in the last 10 years in our institution as well as the impact of the COVID-19 pandemics on the number of hospitalized patients.

Results: In our retrograde analyse 6856 patients were hospitalized in our institution (from 516-778 patients on average 685.6 patients). The most common reasons for hospitalization of patients were heart failure, stroke, dementia, malignancy, fracture, other progressive and metabolic diseases. It is noted that from the beginning of COVID-19 pandemic we had hospitalized only 516 patients.

Conclusions: With the beginning of the pandemic, intensified measures are applied in our institution in order to protect the elderly patients from COVID 19. Before hospitalization patients are tested and patients with a negative PCR test for SARS-COV 2 virus are hospitalized. After hospitalization patients remain in isolation for another 14-day period despite the negative test in order to miss a false negative test of the virus after which period they can be in contact with other patients. By improving the epidemiological situation, some of these measures would be reduced in order for elderly patients and patients in need of palliative care to receive the necessary medical care.

PV759 / #268

THE PROACTIVE NURSING APPROACH "INTENTIONAL ROUNDING" VERSUS STANDARD OF CARE IN INTERNAL MEDICINE: RESULTS OF A NATIONAL CLUSTER-RANDOMISED TRIAL

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Background and Aims: Recently, a proactive nursing approach named Intentional Rounding (IR) has been proposed, but the reported results are inconclusive. Aim of this study, promoted by the Internal Medicine Italian Scientific Societies of Physicians (FADOI) and Nurses (ANIMO), was to provide insights for the effectiveness of IR in Internal Medicine units (IMU).

Methods: In this controlled cluster-randomised study, IMU were assigned (ratio of 1:1) to intervention/IR or control/Standard of Care/SoC. The primary outcome was the cumulative incidence of falls and new bedsores in patients hospitalised for at least 10 days. These events were considered separately as secondary endpoints, together with the number of bell calls and patient satisfaction.

Results: From October 2019 to March 2020, 779 patients were observed and included in the analysis. Cumulative falls and bedsores accounted for 28 and 42 events with IR and SoC (adjusted Incidence Rate Ratio [aIRR] 0.50; 95% confidence interval [CI], 0.15-1.67; p=0.26). Four and 19 falls occurred in the IR and SoC groups (aIRR 0.14; 95% CI, 0.02-0.78; p=0.03). New bedsores were 24 for IR and 23 for SoC (aIRR 1.00; 95% CI, 0.26-3.60; p=0.98). Mean bell calls for each patient were

15.4±24.1 in the IR and 13.7±20.5 in the SoC group (p=0.38). The patient satisfaction questionnaire (from 0=bad to 14=excellent) presented an average score of 13.25±1.72 for IR and 12.1±1.87 for SoC (p=0.87).

Conclusions: The significant effect of reducing falls observed in our study is in favour of the adoption of IR in a complex and vulnerable population such as that hospitalised in IMU.

PV761 / #395

WEEKEND HANDOVER: A SAFE ESCAPE?

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Background and Aims: Our clinical audit pinpointed a national clinical guideline which recommends use of the ISBAR-3 tool for shift handovers. We aimed to compare current practice of weekend handovers at our hospital with the national recommendation. We reviewed weekend medical handovers lists from a 9 week period and audited each handover with a series of audit questions.

Methods: We used the ISBAR-3 tool to form audit criteria from which we formed a series of yes/no questions. To ensure a systematic approach we used a marking scheme guide. Overall A total of 151 handovers were audited. We calculated conformity and non conformity through calculating the percentage of yeses and noes for each question.

Results: Our findings demonstrated a 0% conformity in identifying the doctor handing or receiving the handover. Patient ID numbers and current hospital locations were handed over just 96% and 95% of the times respectively. Reason for admission and treatment summary were relayed on 32% and 37% of handovers respectively. Imaging or blood results were mentioned on 18% and 28% of handovers respectively. NFR status was documented just 64% of the handovers.

Conclusions: Our audit showed an overall poor adherence to the ISBAR-3 tool on criteria that did not have a heading on the current hospital weekend handover template. Moving forward we would recommend a new handover tool called "iHandover" based off the ISBAR-3 tool with the added benefit of self populating live information from the current hospital inpatient system to foster better adherence to ISBAR-3 for future weekend handovers.

PV762 / #401

KNOWLEDGE OF HOSPITAL STAFF ON PANDEMIC PREPAREDNESS AND MEASURES: CERTAINLY, A ROOM FOR IMPROVEMENT

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Background and Aims: Pandemic preparedness requires a continuous cycle of planning, exercising, revising and translating into action. The objective of this study was to assess the awareness and knowledge on and the compliance with the pandemic plan of hospital staff during the COVID-19 pandemic.

Methods: Before and after the pandemic plan was activated in March 2020, several face-to-face and online trainings were done, staff were informed about the pandemic plan and measures. An online survey was done in the third month of the pandemic to measure the knowledge level of staff on the pandemic plan and measures. The demographic characteristics of the participants and information about the pandemic process were collected.

Results: 645 (13.6%) of staff responded. Mean age was 36.7 years, 68.6% were female. Participants were mainly nurses, academic and administrative staff and 39.1% worked in COVID-19 areas. One-fifth of the participants declared that they didn't know the concept of pandemic before. Infection control committee and/or hospital management/quality office were the main sources of information. Degree of knowledge on the pandemic plan was rated as very well and well by 57.7% of the staff. The rate was higher among employees who were female, received direct information, trained by the infection control committee, and watched training videos.

Conclusions: Pandemic preparedness requires continuous improvement and coverage. Three months after the activation of hospital pandemic plan, half of the employees didn't have good knowledge indicating a room for improvement. Training on-site and use of different training and information tools seem to increase the knowledge of hospital staff on pandemic preparedness.

PV763 / #462

FINDING THE CLINICALLY DETERIORATING PATIENT: AN AUDIT OF NEWS CHART USE IN THE UNIVERSITY HOSPITAL LIMERICK

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Background and Aims: The National Early Warning Score was launched in February 2013, to assist healthcare professionals in recognising and responding to patients whose condition is deteriorating. The NEWS chart has multiple challenges surrounding its appropriate and effective use. The NEWS chart assesses Respiratory Rate, SpO₂ using the pulse oximeter, use of supplementary oxygen, Blood Pressure, Heart Rate, Alertness and Temperature. Associated with the NEWS chart is an escalation protocol to assist healthcare workers in determining who is the most appropriate contact, when the NEWS increases.

Methods: This audit assessed the use of the NEWS chart throughout UHL. We assessed the appropriate marking of NEWS charts, parameter modification, the correct calculation of NEWS, and whether the escalation protocol was correctly abided.

Results: Initial data collection involved the assessment of 102 NEWS charts whereby 96% were correctly labelled, 7% had modified parameters and of those with modified parameters, 43% NEWS were calculated incorrectly and 14% of calls to the primary team were made inappropriately. A targeted assessment of high-scoring NEWS charts demonstrated that 75% were labelled correctly, 50% had modified parameters and of those, 0 NEWS were calculated correctly and finally, 67% of calls to the team were made inappropriately.

Conclusions: An education session was held with the NCHDs and CNMs in the UHL to discuss the appropriate use of parameter modification, correct NEWS calculation and use of the escalation protocol. Following the education sessions, data will be re-collected to determine if the clinically deteriorating patient is identified earlier and receives appropriate management in a timelier manner.

PV764 / #465

PROMOTING EARLY MORNING DISCHARGES WITH SPECIALTY-SPECIFIC DISCHARGE LETTERS, A QUALITY IMPROVEMENT PROGRAMME

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Background and Aims: Pre 11AM discharges reduce patient experience times (PET) in the emergency department. During COVID-19 and flu season, prolonged PET may increase the risk of airborne diseases. Aim: To identify an intern-delivered safe, effective and efficient discharge before 11am process for patients.

Methods: An intern patient flow group identified a solution to patient flow. Pre 11AM discharge rates were targeted. Specialty-specific discharge templates were designed. The patient flow manager, and access and performance manager were recruited to the Quality Improvement Programme (QIP). Four template-based discharge letters were designed for gastroenterology; comprising alcohol detoxification, inflammatory bowel disease flares, elective abdominal paracentesis and drug overdose. The templates were reviewed and amended by the relevant consultant, and will be uploaded onto hospital reporting system 'iPIMS'; with subsequent monitoring of pre and post data collection for pre 11AM discharges. The geriatric teams will be asked to target two discharges per week to be prepared for pre 11AM discharge. Ward based specialties should increase the chances of a sustainable process.

Results: The pre 11AM discharge rates for medical and surgical inpatients are currently 9% and 18% respectively. If this small intern delivered initiative is successful, an increase in pre 11am medical inpatient discharge rates from 9% to 13% would be achieved.

Conclusions: Pre 11AM discharges will reduce patient experience times in the emergency department. We estimate an increase from 9% to 13% in pre 11AM discharges in the department of medicine with this QIP. To date, this is the first study to target pre 11AM discharges using prefilled discharge templates.

PV765 / #521

ASSESSMENT OF QUALITY AND PATIENT SAFETY IN MECHANICAL RESTRAINT USE

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Background and Aims: Mechanical restraint has ethical and legal considerations, involves patient safety and it is directly implicated in quality of care. Even though it should be a last resource and exceptionell option, its use is still extendend beyond desired. Our aim is to describe the characteristics of mechanically restrained patients and evaluate the adherence to standards regarding the specific protocol, in our Department.

Methods: A One-day cross-sectional study was conducted, including all the patients hospitalized in the Internal Medicine Department.

Results: 5 out of 60 patients were restrained. Ayes 67-91; 60% male. All had cognitive impairment. 80% didn't have clinical record about the condition motivating restraint. Only in one case, previous preventive measures was used (family accompaniment); No verbal deactivation, environmental mesaures or pharmacological restraint was applied. In 60% of the cases could not be determined who indicated mechanical restraint, the rest was established by nurses without medical advisory. In 60% of the cases, there was no record regarding the cause for its use; Self-harm prevention (20%) and therapy protection (20%) were the recorded causes. Mechanical restraint were placed in 2 points (both arms), using adequate standard restraints and tide appropriately placed, in all cases. Nonetheless, wrists protections weren't used in any case. Side effects observed were: erosion (20%) and peripheral transtient ischemia due to compression (20%). Only the type of mechanical restraint, previous preventive measures that failed and indications was registered in one patient.

Conclusions: The information on mechanical restraints in medical records and its application, distances from quality and patient safety.

PV766 / #530

ACADEMIC CHIEF RESIDENT IN INTERNAL MEDICINE RESIDENCY PROGRAM

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Background and Aims: Residency program is dedicated to provide a well-structured educational materials, patient care and skills development. It will facilitate resident's research, knowledge and evidence based medicine. Several challenges might affect the competency of the teaching provided by the residency programs. We report our successful experience with academic chief resident

initiative at internal medicine (IM) residency program in United Arab Emirates.

Methods: A descriptive 5 years' experience evaluating the educational materials organized by academic chief residents at Tawam hospital IM residency program (October 2015 to 2020). The academic performance of residents (n=34) was evaluated based on the Arab Board and ACGME-I requirements.

Results: In year 2015, the academic chief resident was appointed, who were able to identify gaps and explore the potential improvement steps. The structure and style of lectures were changed to new teaching model "Medicine Monthly Modules". Each month a subspecialty was selected with lectures, workshops, and mortality meetings. There was notification about the upcoming conferences, campaigns, volunteer work, and courses. Twelve IM modules were successfully organized and we had a 100 % success rate in written board exams in 2015-2016. Each year a new academic chief was selected with continues updates and innovation. That style of teaching was implemented successfully in the following years until 2020 with flexible transition to virtual lectures during COVID-19 pandemic.

Conclusions: Academic chief resident had a major role in organizing new teaching methods and schedule a multidisciplinary educational materials. Program directors have to rely responsibilities to academic chief with continues monitoring, evaluation and encouragement.

PV767 / #762

INTERNIST AND ONCOLOGIST : INFORMATION SHARING FOR A BETTER CARE

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Background and Aims: Outpatient care of cancer patients is shared between oncologists and internists. It is well known that information exchange can be lacking, creating frustration for the care givers, the patient and their relatives, and possibly preteritating the global accompaniment. We sought to identify what information should be systematically shared, in order to offer the best possible care.

Methods: We submitted a questionnaire to internists in outpatient and hospital structures in the district of Geneva (Switzerland), to find out what information they needed about the oncological situation of their patients. We then compared data contained in the oncologists' reports addressed to them. Based on those results, we listed the necessary subjects that oncologists should share with colleagues.

Results: Out of nearly one hundred questionnaires sent out, 34 (35%) were completed. Almost all internists (91%) felt that more information was needed about their patients. The desired in-depth information concerned: - prognosis (100%); - side effects

(100%) and their treatment (91%); - results of analyses (blood tests, imaging) carried out by oncologists (88%); - frequency of follow-up that the internist should carry out (85%). After analysis of oncologists' reports sent to internists, it was found that little of this information was included (20%).

Conclusions: We propose to encourage oncologists to share details with internists, ie through a standard form, regarding prognosis, side effects of oncologic treatments and their management, results of relevant analyses and frequency of follow-up needed. All with the aim of offering the best possible care to patients and sharing decision-making.

PV768 / #942

MAKING ELECTRONIC PRESCRIPTION SAFER THROUGH INCIDENT REPORTING

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Background and Aims: Electronic prescription is a basic and fundamental tool towards Medication Without Harm (WHO's Third Global Patient Safety Challenge), however, it is not exempt of risks as it has added new challenging ways of harm we should all be aware of. Our aim is to communicate notified patient safety incidents regarding electronic prescription in our department during 2020 and strengthen incident reporting to improve it.

Methods: We conducted a descriptive study based on reported patient safety incidents regarding electronic prescription (Athos™ Pharma) in our department, during 2020.

Results: Three incidents were reported; 1. Allergies has to be included into the electronic prescription program regardless previously collected in digital medical records, since lack of interoperability between both programs, therefore allergies may occur if interoperability is taken for granted. 2. Medication duplicity alert does not work despite correctly configured to detect it. Medication duplicity can occur as this alert is not reliable. 3. "NO" has been included in the posology as an acronym for two possible dosing regimens; "NOche" (Night) and "NO Saturdays and Sundays", without distinction between both. Improves included: 1. Effective intra and inter-departmental safety communication to all prescribers and hospital pharmacy (double validation) through corporate e-mail and Whatsapp. 2. Institutional communication to Athos™ Pharma towards its correction.

Conclusions: Electronic prescribing is not free of risks. By notifying this risks, improves can be made towards the WHO's Third Global Patient Safety Challenge: Medication without harm, since it allows learnig when analyzing them and implementing safer practices to avoid its recurrence or minimize patient damage.

PV769 / #1073

HOSPITAL AT HOME UNIT OF A PORTUGUESE DISTRICT HOSPITAL: FIRST-YEAR EXPERIENCE

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Background and Aims: In Portugal, Hospital at Home (HaH) began in 2015, with subsequent spreading and gradual implementation. The Hospital at Home Unit (HHU) at Centro Hospitalar Baixo Vouga was created in May 2019 and achieved its goals. The aim of this study was to explore the data of first-year experience.

Methods: Retrospective study of patients admitted in HHU between May of 2019 and April of 2020 was performed. Age, sex, length of stay, diagnosis, comorbid condition and clinical evolution were analyzed.

Results: There were 231 admissions, corresponding to 214 patients; 54.1% were female, with an average age of 72.2 years. All patients were admitted for acute pathologies, namely infections (35.1% urinary tract, 28.9% respiratory, 10.8% skin/soft tissue), congestive heart failure (10.8%) and chronic obstructive pulmonary disease (6.8%). Most patients came from Emergency Department (59.3%) and Internal Medicine's inpatient department (33.8%). Mean length of stay was 7.1 days; there was a weak correlation with the comorbid state ($r=0.15$, $p < 0.05$). Majority of patients evolved favorably, only 3.9% requiring hospital admission and mortality rate of 1.7%. After discharge, 52.4% were referred to primary care and 41.6% to outpatient department. In most patients, clinical stability prevailed, with 30-day readmission rate of 3.9%, correlated with the patients' functional decline ($r=0.18$, $p < 0.01$).

Conclusions: HaH has proven to be a safe and successful alternative to hospital admission, proving its potential to provide quality care. The good results after 1 year experience justify the investment in this unit and contribute to improving the treatment of an increasing number of patients and more complex pathologies.

PV770 / #1322

RISK MANAGEMENT OF CARBON MONOXIDE INTOXICATION - A COMPREHENSIVE STRATEGY FOR RISK REDUCTION

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Background and Aims: The WHO identifies acute carbon monoxide (CO) poisoning (ACMP) as the most common respiratory intoxication worldwide. In Bulgaria, CO is one of the most widespread atmospheric pollutants and is a serious reason

for registration of victims and deaths with ACMP. The aim of the study is to define the risk factors for environmental pollution and the impact of the population with CO in the country.

Methods: The methods used for this research are documentary and deductive-analytical.

Results: The results of the study indicate that a significant example of fatal intoxication with CO is the fire in the train Sofia - Kardam, 2008. The study shows that in the country pollution of the urban environment with CO is the leading cause (80%) of year-round pollution, followed by this caused by sporadic forest fires (15%) in the summer. Legislation in the country regulates the maximum permissible level (MRL) for CO in ambient air with Ordinance N°12 of July 15, 2010. The MRL and safe level of carboxyhemoglobin is set at 2.5 - 3.0%. This is determined at a maximum exposure of 60 mg/m³ or at an 8-hour exposure of 10 mg/m³.

Conclusions: The analysis of the data on pollution and ACMP in the country is an argument for presenting a complex approach to risk reduction based on the identification of the groups of risk factors. Tactical-strategic approaches are offered in several directions: organizational, technical, medical and educational.

PV771 / #1441

PROLONGED HOSPITALIZATION IN AN ACUTE INTERNAL MEDICINE UNIT DUE TO SOCIAL FACTORS. A RETROSPECTIVE OBSERVATIONAL STUDY IN A PUBLIC GENERAL HOSPITAL IN GREECE

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Background and Aims: The average length of hospital stay (ALS) is a key efficiency indicator of clinical units. We examined the frequency, causes and outcome of prolonged hospitalization attributable to social factors.

Methods: Retrospective observational study of 3,095 consecutive admissions (median age 78.9 years, 54% females, ALS=7.7 days) to an acute Internal Medicine unit of a public general hospital in Athens, during the period 2017-2019. Prolonged hospitalization (PH) was defined as hospital stay ≥ 21 days. We reviewed the charts of patients with non-medical causes of PH referred for social assessment.

Results: PH was observed in 5.4% of admissions and accounted for 22.4% of bed occupancy. Social causes were identified in 20.4% of PH cases, the most frequent being: non-availability of post-discharge care (85.3%) due to lack of appropriate public facilities or financial hardship of the family; absence of family (26.5%); refugee or immigrant status (11.8%). Patients with social causes of PH had a significantly longer ALS (38.5 versus 32.0

days, $p=0.03$) and an in-hospital mortality almost twice as high as the rest of PH patients (41.2% versus 22.5%, $p=0.027$). Hospital-acquired infections were the most frequent cause of morbidity and mortality in patients PH due to social factors. They were diagnosed in 86% of those who died in the hospital and in 30% of those who survived ($p < 0.01$).

Conclusions: Strategies to shorten ALS in acute medical units should target PH due to social factors, as it accounts for a disproportionately high percentage of bed occupancy, hospital-acquired infections and mortality.

PV774 / #1597

COVID-19 PANDEMIC AND LOCKDOWN – THE IMPACT ON HOSPITAL ADMISSIONS.

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Background and Aims: The urge to contain the coronavirus disease 2019 (COVID-19) pandemic motivated strict social containment measures and health care systems' reorganization. Our aim is to study the rate and cause of hospitalizations for non-COVID-19 conditions in a Portuguese hospital.

Methods: Retrospective study of non-COVID-19 admissions between March 1 and August 31 in 2019 and 2020. Weekly admission rates were compared in three time periods – control (March 1 to August 31, 2019); phase 1 - early COVID-19 (March 1 to May 17, 2020); phase 2 - late COVID-19 (May 18 to August 31, 2020). Categorization of admissions was done according to the 10th version of International Classification of Diseases (ICD-10).

Results: During early and late COVID-19, there were 615 non-COVID-19 hospitalizations compared with 620 during the same period in 2019. Hospitalization rate in phase 1 reduced 13.6% (23.9 vs 21 per week) followed by a slight recovery of 6.9% in phase 2 (23.9 vs 25.6 per week). The main ICD-10 categories in which there was a decline of weekly hospitalization rate were diseases of the blood and blood-forming organs (1.1 vs 0.6 per week, 75.3%), diseases of circulatory system (6.7 vs 6.4 per week, 3.1%) and neoplasms (1.5 vs 1.4 per week, 0.48%). Meanwhile hospitalization rate of respiratory system diseases presented a 41.6% increase (3.8 vs 11 per week).

Conclusions: We found substantial variations in hospitalization patterns during the studied periods. The long-term impact of these on patient outcome is still not fully understood.

PV775 / #1618

MEDICAL EXCESS AND CHOOSING WISELY PROGRAM IN PORTUGAL

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Background and Aims: Choosing Wisely Portugal (CWP) is an initiative seeking to avoid unnecessary medical interventions. Our study evaluates overdiagnosis and overtreatment in Portugal and the knowledge and awareness among healthcare professionals and patients regarding CWP campaign.

Methods: An online survey was available during November 2020, headed to medical doctors, patients' associations and scientific societies who established a partnership with CWP program.

Results: We gathered answers from over 1200 doctors, 20 patient organizations and 20 scientific societies. The majority of respondents considered the excessive request of diagnostic tests to be a relevant problem (83.4-93.8%) and believed doctors are highly responsible for patient education (78.8-88%). Despite some patients occasionally asking for unnecessary check-ups, they tend to discuss their relevance with their attending physicians and frequently follow doctors' recommendations. Although doctors and scientific associations consider that doctors usually explain the reasons for not prescribing a certain exam (68%), 70.8% of patient organizations affirm they do so infrequently. A significantly percentage of doctors (49.9%) say they would prescribe against their convictions or would hesitate about the correct decision. A relevant proportion of the subjects (8-63.2%) do not know CWP program. However, they recognize its importance in promoting wiser health choices (50-87.7%). Implementation of recommendations addressed to patients and physicians is useful to reduce unnecessary tests prescription.

Conclusions: Improving patients' education and patient-physician communication is essential to diminish unnecessary tests prescription and procedures. CWP is a valuable initiative, which is helping to improve decision-making by all stakeholders in healthcare.

PV776 / #1649

DESCRIPTIVE STUDY OF THE LEVEL OF PERCEPTION OF NURSES ABOUT THE NEED FOR THE FUNCTIONS OF A PIVOTAL NURSE IN ONCOLOGY

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Background and Aims: Cancer is a major public health problem. The pivot nurse (PN) is a resource person, easily accessible, expert in oncology, and who works closely with the interdisciplinary team. In addition, he provides a link between team members and the community. The purpose of our study was to assess the level of nursing perception of the need for PN.

Methods: This is a cross-sectional study based on a questionnaire for nurses. We asked the nurses about the 4 functions of the PN which are: caring, coordinating, collaborating and educating.

Results: These were 40 nurses. The average age was 35 years-old with predominance of women. The majority of surveyed nurses have an applied license in nursing (54%). In addition, nurses who have been in their current service for more than 5 years represent 2/3 of the nurses interviewed. The level of perception was relatively high (81%). The perception varies from one function to another in the overall activities of the PN. Indeed, we found that their impressions of the coordination function came first (54.1%) followed by collaboration (51.4%) and education (43.2%).

Conclusions: It is necessary to have a guide which facilitates the access of the cancer patient throughout his therapeutic trajectory. Educating nurses about this new position is desirable through ongoing training in oncology, in order to improve the care of the cancer patient.



AS13. PALLIATIVE CARE

PV777 / #42

ENTERAL SUPPLEMENTATION IN PALLIATIVE CARE: THE IMPORTANCE OF HOME FOLLOW-UP

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Background and Aims: Nutritional assessment and the need for enteral supplementation should be performed actively and periodically. Our objective is to analyze the enteral supplementation prescription in our Palliative Care Unit during 2019 as well as its relationship with other variables.

Methods: The patients discharged from the Palliative Care Unit of our hospital during the year 2019 were selected. The variables analyzed were: prescriber, degree of malnutrition, appetite stimulants and complications. Chi square test was performed between dichotomous variables and Kruskal Wallis between ordinal/nominal variables. SPSS 20.0 was used.

Results: Eighty-two discharges were analyzed. Twenty-nine cases of mild, 23 moderate, and 15 severe malnutrition were cataloged. Plant supplementation was started in 62% of patients with severe malnutrition, 33% moderate and 62% mild. Eighteen percent of the prescriptions were made in consultation. It should be noted that 30% of the total enteral supplements were prescribed by the Home Palliative Care teams. Appetite stimulants were only prescribed to 9% of patients with malnutrition, unrelated to the degree of it. Only 8% had diarrhea temporarily related to the start of supplementation.

Conclusions: Due to the side effects of stimulants, they were prescribed in low proportion. The home teams had great relevance in the prescription of supplementation, being a key element in the periodic nutritional evaluation of our patients.

PV778 / #43

NUTRITIONAL ASSESSMENT IN PALLIATIVE CARE: VARIABLES RELATED TO MALNUTRITION

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Background and Aims: The impact of cancer and antitumor treatments on the nutritional status of advanced cancer patients is an essential factor for their comprehensive approach. Our objective was to analyze the degree of malnutrition based on serum albumin and the presence of dysphagia in patients discharged from our Palliative Care Unit during 2019, as well as to evaluate its relationship with other variables.

Methods: Patients discharged from the Palliative Care Unit of our hospital during 2019 were selected. The variables analyzed were: age, sex, oncological/non-oncological disease, treatment with radiotherapy, chemotherapy, hormone therapy or immunotherapy, serum albumin (g/dL), cachexia and dysphagia. Logistic regression was performed between quantitative/dichotomous variables, Chi square between dichotomous and Kruskal Wallis between ordinal/nominal variables. SPSS 20.0 was used.

Results: Eighty-two discharges were analyzed. Serum albumin was requested in 67 patients, being <2.5 g/dL in 22%. Twenty-five percent had cachexia and 17% had dysphagia. Anti-tumor treatments were independent variables of the degree of malnutrition. The type of neoplasia was dependent on the degree of malnutrition ($p < 0.05$), with greater severity in patients with digestive tumors. Cancer patients presented a higher degree of malnutrition compared to non-cancer patients ($p < 0.05$).

Conclusions: More than half of the patients in our Palliative Care Unit presented malnutrition, more frequently and with a greater impact on cancer patients, especially at the digestive level.

PV779 / #44

ANALYSIS OF EXITUS IN A PALLIATIVE CARE UNIT DURING THE SECOND SEMESTER OF 2019

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Background and Aims: Knowing the characteristics of our patients as well as the various interventions that influence the clinical course of their admission provides great information for planning the unit's activity and looking for areas for improvement. Our objective was to analyze the clinical-epidemiological characteristics of the patients in our Palliative Care Unit.

Methods: Data were collected on all deaths from the Palliative Care unit of our hospital during the second half of 2019. The variables analyzed were: age, sex, oncological/non-oncological-based pathology, treatment and length of stay.

Results: A total of 107 patients were analyzed, with a mean age of 69 years and a median of 71. 53% percent were male. 94% percent had oncological pathology, being digestive (36%) and pulmonary (23%) more common. 37% of cancer patients underwent surgery since their diagnosis, 58% received chemotherapy, 19% immunotherapy, 25% radiotherapy and 9% hormone therapy. The median survival at diagnosis was 11 months, being significantly longer in patients who underwent surgery or received hormonal therapy ($p < 0.05$). The median stay in our care was 13 days.

Conclusions: Most of our patients are oncological, especially of digestive and pulmonary origin, with an age over 65 years. A considerable part received immunotherapy.

PV780 / #47

VARIABILITY OF PALLIATIVE SEDATION UNDER THE CARE OF THE ON-CALL TEAM

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Background and Aims: Usually, patients admitted to the hospitalization ward spend most of the day under the care of the on-call team. Analyze variables related to palliative sedation between the referring doctor and the doctor on duty.

Methods: Data were collected on all deaths from the Palliative

Care unit of our Hospital during the second semester of 2019. The variables analyzed were: age, sex, underlying disease, sedation initiated by a referring physician or from guard, survival after initiation of sedation, symptom, capacity and drug used. Chi square was performed between qualitative variables and Kruskal Wallis between qualitative/quantitative variables. SPSS 20.0 was used.

Results: A total of 107 patients were analyzed. Sedation was initiated by the referring physician in 78% of cases, and the survival time after the initiation of sedation was significantly lower ($p=0.047$) when performed by the on-call physician (20 hours on average) compared to the referring physician (30 hours), not being significant for age, sex or underlying disease. The symptoms that justified the sedation by the referring physician were dyspnea (30%), delirium (30%) and psychological distress (20%). In the case of the doctor on duty, dyspnea (33%) and in another 33% the reason was not reflected.

Conclusions: There are significant differences, probably justified by the clinical situation at the time of assessment and the most common symptoms.

PV781 / #51

COMPARISON OF THE QUALITY OF SEDATION IN PATIENTS IN TERMINAL PHASE IN A PALLIATIVE CARE UNIT BETWEEN THE YEARS 2006, 2011-2012 AND 2019

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Background and Aims: Palliative sedation is a very useful tool to address refractory suffering, with many legal and ethical connotations that have been established over time until clear protocols for action are established. Our objective was to perform a comparative analysis of sedation in our unit in the years 2006, 2011-2012 and 2019.

Methods: Comparative retrospective descriptive analysis of those patients who died in the years described.

Results: In 2006, sedation was indicated in 34% of patients, compared to 12% in 2011-2012 and 26% in 2019. Median age was 68 years with 62% of men in 2006, compared to 62 years with 63% of men in 2011-2012 and 78 years with 48% of men in 2019. Lung cancer was the most frequent in all cuts. The prescribing doctor was 55.3% their referring doctor in 2006, 82% in 2011-2012 and 81% in 2019. Consent was given by the patient in 10% and the family by 90% in 2006 compared to the 25% and 62% in 2011-2012, and 54% and 46% in 2019. The drug predominantly used was midazolam in all cuts, delirium and dyspnea being the most common determining factors.

Conclusions: Our patients are older, with an increasing proportion

of women. At present there is a greater adaptation to the palliative sedation requirements with respect to previous years, reflected in a higher percentage of sedation performed by the referring physician, with a greater reflection in the clinical history of the consent of the patient-family member on it and of the patient's ability to give consent.

PV782 / #127

LUNG CANCER AND PALLIATIVE CARE - REALITY OF A PALLIATIVE CARE UNIT

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Background and Aims: Most lung cancer patients are diagnosed at a very advanced stage, with a high impact of symptoms such as: pain, dyspnoea and anorexia. Palliative care is essential for these patients to obtain the best control of symptoms. Characterize the patients with lung cancer referred to a palliative care team and analyze the characteristics of patients who developed oncological emergencies and patients who needed complex palliative measures.

Methods: Retrospective cohort analysis, assessing all patients with lung cancer referred to palliative care.

Results: Most patients had advanced non-small cell carcinoma and were under active treatment. The patients were mainly referred by pain and dyspnoea, with a median survival of 8 weeks. Sixteen percent of patients experienced a cancer emergency during the course of their illness and the most common emergency was vena cava syndrome (40%). An important percentage of patients needed complex palliative measures and were earlier referred to our team.

Conclusions: The increasing incidence of lung cancer and the impact of the associated symptomatology should lead to the promotion of an early integration of palliative care. In the present study, the median survival after referral is reduced, reinforcing the need for an early integration. Because of the poor information on this subject, further studies are needed.

PV783 / #244

ASSESSMENT OF THE NEED FOR PALLIATIVE CARE IN PATIENTS WITH CHF

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Background and Aims: Every year, 16.5 million people die from chronic heart failure worldwide. Who emphasizes that patients with cardiovascular diseases occupy the first place in the structure of those in need of palliative care. The aim of the study was to study the possibility of using prognostic scales (PaP Score, Palliative performance scale (PPS) –modified by the Karnofsky

scale) for non-oncological patients.

Methods: The study involved 60 patients with CHF, whose average age was 76±2.59 years. During the study, patients were divided into groups depending on the stage of CHF, functional class, and systolic dysfunction.

Results: It was determined that patients with stage 2 CHF, regardless of systolic dysfunction and functional class, need PMP. Taking into account the predicted survival rate of 70%, it is necessary to realize that PMP will be provided to such patients for a long time.

When analyzing the indicators of patients with stage 2A and stage 2B of CHF, differences in the need for outside help were revealed – when both circulatory circles are affected, patients need outside help constantly, which should be taken into account when interacting with the social service.

Conclusions: In the course of a step-by-step analysis of patients with different stages, functional class, and systolic function, it becomes clear that with the progression of the underlying disease, clinical manifestations are more correlated with prognostic scales. It is noteworthy that the key symptom is shortness of breath.

PV784 / #384

EXPLORING GRADUATE ENTRY MEDICAL STUDENTS' ATTITUDES TOWARDS PALLIATIVE CARE EDUCATION IN THEIR CURRICULUM

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Background and Aims: As people live longer with life-limiting illnesses there is greater need for skills and knowledge in palliative care (PC). Medical students should acquire the knowledge, attitudes, and confidence during training for future decision-making. To develop PC training for medical students we must gain perspective on their understanding of PC and their learning needs. The aim was to investigate graduate entry medical students' views on the importance of education in PC and their perception of PC.

Methods: In this prospective quantitative study penultimate and final year students were recruited from a graduate entry medical school. Local Research Ethics approval was granted. Students completed online questionnaires and were asked to indicate how important it is to them that certain aspects of PC are covered in their curriculum, and to what extent these aspects had been covered.

Results: 281 recruited students, 82 responded. 95% of respondents felt everyone should have a PC rotation. 53% felt a one-two weeks long attachment was insufficient. The areas of education perceived to be most important were knowledge of symptom control, communication, ethical issues, self-care and grief. The areas considered well covered were ethical issues (46.6%) and definition of PC (32%). The areas considered least addressed were patient focused work (41.3% barely covered), and

knowledge of resources available (39.2% barely covered). 95.9% of third years, 76% of fourth years wanted more teaching in PC.

Conclusions: PC education is recognised as an important component of graduate medical training. The study highlights the challenge in providing the required education and sufficient duration of placement in PC to correlate with the expressed needs of future doctors.

PV785 / #488

RECTAL TENESMUS

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Case Description: A 56-year-old man presents rectal tenesmus and proctalgia with lancinating rectal pain that worsens with defecation and increases at night, impeding an adequate nocturnal rest. Within his personal background we highlight a cecoapendicular neoplasm with regional lymph node metastases and peritoneal carcinomatosis. He has undergone surgery and has received adjuvant chemotherapy with multiple subsequent recurrences.

Clinical Hypothesis: The possible diagnoses that we considered were proctitis, rectal tenesmus, anal fistula and hemorrhoids.

Diagnostic Pathways: Proctitis is frequently associated with sexually transmitted diseases (STD) which we discarded as the patient denied anal sex or unprotected sex and no lesions suggestive of STDs were observed in physical examination. No anal fistulas or hemorrhoids were evidenced. When performing a digital rectal examination, no increase in sphincter tone was noticed. After discarding the possible organic causes of proctalgia and considering the neuropathic and irruptive characteristics of the pain, empirical treatment with sublingual fentanyl was initiated. As no improvement was referred he was switched to low-dose methadone (2.5 milligrams every 8 hours) with good initial pain control. Subsequently, the patient began to take 2.5 mg of methadone every 12 hours, but in the face of worsening symptoms, the dose was increased to 5 mg every 12 hours with satisfying results.

Conclusion and Discussion: When neuropathic pain cannot be controlled, it is interesting to switch to other opioids that act by binding to different receptors. Methadone is an opioid used in moderate-severe oncologic and neuropathic pain, especially when refractoriness to other treatments.

PV786 / #861

IT'S TIME TO TALK: CHALLENGES IN PROVIDING INTEGRATED PALLIATIVE CARE IN ADVANCED CONGESTIVE HEART FAILURE

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Background and Aims: Congestive heart failure (CHF) is an increasingly prevalent terminal illness in a globally aging population. Despite optimal medical management, prognosis remains poor – a fact seldom communicated to patients and/or their families. Evidence suggests numerous benefits of palliative care consultation in advanced CHF but to date, their services remain woefully underutilized. Objectives To identify specific challenges to accessing and implementing palliative care in patients with advanced CHF, and to use this information to formulate recommendations for practice.

Methods: Literature review whereby recommendations for practice were formulated on the basis of primary quantitative/qualitative data and consensus expert opinion.

Results: Accessing palliative care services for patients with CHF remains a challenge for numerous factors including prognostic uncertainty, misconceptions about what palliative care is, and difficulty recognizing when a patient is suitable for referral. Strategies to improve access/delivery of palliative care to this population include education and proper discussion about prognosis/goals of care. A team-based approach is essential as we move towards a model where symptom palliation exists concurrently with active medical disease-modifying treatment.

Conclusions: Despite evidence that palliative care has a role in improving symptom control and overall quality of life in patients with end-stage CHF, a multitude of challenges exist and this ultimately hinders access to palliative care services. Education to abolish pre-existing misconceptions about the role of palliative care and a movement towards a team-based approach focused on simultaneous palliative and traditional medical care will undoubtedly improve access to, and benefit from, palliative care services in this population.

PV788 / #1621

PLACE OF CARE AND PLACE OF DYING, A RETROSPECTIVE ANALYSIS

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Background and Aims: Understanding patients' preferences for place of death and supporting patients to achieve their wishes has become a priority. The choice of the place of death results from the dynamic interaction between factors related to the illnesses (both oncological and non-oncological), the individual preferences, and the environment (both physical and social). The majority of patients prefer to die at home but often die in hospital.

Methods: Retrospective analysis from the patients followed by the Palliative Care team (PCT) at home since 1st January of 2018 during May 2020. Data was recorded in a database created for the effect in Microsoft Excel®.

Results: In this period were followed at home 257 patients, with male 145 (56%) preponderance, median age 80±8.2 years old. Most had oncological diseases (N=208; 81%) versus non-oncological (N=49; 19%). The most prevalent conditions were colorectal cancer (N=40; 15.6%), lung cancer (N=30; 11.7%), gastric cancer (N=23; 8.9%) and heart failure (N=17; 6.6%). Symptom control was the main reason for referral (N=157; 61%). Outpatient consultation was the main referrer (N=188, 73%). Patients were evaluation in average 2.58 times. At the time of analysis 206 (80%) patients died. The place of death was their home (N=157; 17.2%), hospital ward (N=14; 6.8%), geriatric residences (N=21; 10.2%), other hospitals (N=3; 1.5%), emergency department (N=8; 3.9%) and palliative care unit (N=3; 1.5%).

Conclusions: Most of the patients in this study died at home. Even though many efforts and changes had been made some patients still die in hospital scenarios. Many reasons can be pointed: clinical deterioration, increased complexity, incapable caregiver, patients' desire.

PV789 / #1641

PANCREATIC CANCER AND AN ATYPICAL NON-SURGICAL "FROZEN ABDOMINAL" SYNDROME

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Case Description: A 48-year-old melanodermic female patient, without an abdominal surgical history, presented with a severe, persistent back pain and gastrointestinal dysmotility with intolerance to solids and liquids. She was diagnosed with a body/tail pancreatic ductal adenocarcinoma that invaded the posterior wall of the stomach and celiac plexus. Staging showed multiple bilateral secondary liver lesions. Due to the severe pain and malnutrition, the patient was admitted at our institution. The pain was controlled with opioids and after a period of total intolerance and parenteral nutrition, a nasojejunal tube was introduced. The patient received two treatments of gemcitabine and was further submitted to palliative radiotherapy to the celiac plexus. Afterwards, the patient was dismissed to go home, maintaining initially the enteral nutrition by nasojejunal tube, which was later removed as the patient progressed to oral diet. The pain was controlled and the patient showed a significant improvement of her ECOG-PS.

Clinical Hypothesis: The patient had a non-surgical frozen abdominal syndrome.

Diagnostic Pathways: A CT scan did not show signs of mechanical intestinal obstruction. However, it showed a persistence of the intestinal contrast administered one month before, suggesting an ultra-slow intestinal motility.

Conclusion and Discussion: A celiac trunk infiltration was associated with visceral neuropathic dysfunction, leading to an atypical presentation of frozen abdominal syndrome in the absence of surgical intervention history. To palliate the symptoms

it was necessary a multidisciplinary approach that with an intervention to both pain and dysmotility control using aggressive therapeutics (chemotherapy and radiotherapy) and optimization of medical and gastroenterology interventions.



AS14. PERIOPERATIVE MEDICINE

PV791 / #183

DEXAMETHASONE EFFICACY FOR ACUTE PAIN MANAGEMENT AFTER HIP ARTHROPLASTY

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Background and Aims: Dexamethasone has anti-inflammatory and great analgesic effect. By enhancing endogenous opioid synthesis there is potential to reduce high doses of narcotics. Hyperglycemia, raised lactate are side effects of dexamethasone, which affects the dynamic of treatment. The aim was to investigate dexamethasone's effect on pain, serum glucose and lactate after hip replacement.

Methods: This prospective study includes 50 patients. Multimodal analgesia was administered for both groups. The experimental group additionally received dexamethasone 8 mg i/v before surgery and 4 mg i/v 6 and 12 hours after the first dose. Rescue analgesic – morphine 10 mg s/c was administered if needed. Glucose and lactate were measured before surgery, at 18:00 and 6:00 the next day. Perioperative pain level was measured by VAS.

Results: Rest pain level in the experimental and control group accordingly was - 1.2 and 3.1 at 18:00; 0.8 and 2.3 at 6:00. Movement pain level in the experimental and control group accordingly was - 2.0 and 3.9 at 18:00; 1.8 and 4.2 at 6:00. Lactate level was 1.02 and 1.57 mmol/l before surgery; 1.32 and 1.08 mmol/l at 18:00; 1.9 and 1.54 mmol/l at 6.00. Glucose level was 5.5 and 5.4 mmol/l before surgery, 8.3 and 6.4 mmol/l at 18:00; 7.5 and 5.8 mmol/l at 6.00.

Conclusions: Dexamethasone provides excellent analgesic effects. But it does not allow the use of a lower rescue medication dose. Serum glucose and lactate rises after dexamethasone injection, but does not reach a level that affects recovery using dexamethasone in the mentioned doses and period of time.

PV792 / #277

THE PERIOPERATIVE MANAGEMENT OF NONVALVULAR ATRIAL FIBRILLATION PATIENTS ON LONG-TERM ORAL ANTICOAGULATION THERAPY: A DILEMMA FOR GPs

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Background and Aims: The aim of this systematic review was to assess the perioperative management of nonvalvular atrial fibrillation (AF) patients on long-term oral anticoagulation therapy in a Primary Care setting.

Methods: A comprehensive search strategy was performed on varying databases including, EMBASE, Pubmed, NIH clinical trials and Cochrane database of systematic reviews for clinical trials, cohort studies, randomised control trials, meta-analysis, systematic reviews relating to 'perioperative management', 'Nonvalvular Atrial fibrillation', 'bridging', 'Primary Care', 'General Practitioner' and 'anticoagulation'. The identified studies from the literature search were then further evaluated using our strict inclusion and exclusion criteria. The Critical Appraisal Skills Programme (CASP) tools ('CASP Qualitative assessment' (2017), Available at: <https://casp-uk.net/casp-tools-checklists/>) and Cochrane database of systematic reviews was used for critical appraisal and evaluate for possible bias of the selected papers.

Results: Studies analysed, in this systematic review, suggest that further research is warranted to investigate perioperative management of nonvalvular AF patients on long-term anticoagulation therapy in a Primary Care setting. From the results gathered, it could be argued that GPs should consider an individualised approach to the administration of treatment for these patients' optimal perioperative care.

Conclusions: Standardised protocols and larger studies may help to further evaluate the clinical significance of patient and procedure specific perioperative management of nonvalvular AF patients on long-term oral anticoagulation therapy in a Primary Care setting.

PV793 / #310

TUMOR-INDUCED OSTEOMALACIA: IDIOPATHIC BONE NECROSIS

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Background and Aims: The tumor-induced osteomalacia (TIO) is a paraneoplastic syndrome secondary in most cases to tumors of mesenchymal origin; is characterized by increased lost of urinary phosphate by the inhibitory effect exerted by the fibroblast growth factor 23 on phosphorus transport in the proximal renal tubule. Should be suspected in a patient with weakness and generalized muscle in addition. The definitive treatment of the disease is surgical resection of the tumor, whe it is unknown or is not possible, should be initiated replacement of phosphorus and calcitriol. This paper presents the first case of a patient with tumor-induced osteomalacia associated with FGF 23-mesenchymal tumor productor.

Methods: 45-year-old man admitted into trauma service for total prosthesis of the right hip, without personal history of interest. Poor dense bone was observed during surgery, with quadriceps, tibial and bilateral twin amyotrophy. Blood test with serum calcium 7.9 mg/dl, phosphate 0.9 mg/dl, alkaline phosphatase 285 IU/L, 25-hydroxycholecalciferol 18 ng/ml, urinary phosphorus 1317 mg/24 hours, FGF 23 greater than 415.0 RU/ml. Study of autoimmunity and normal complement. Hip MRI and octeotride bone scan without findings.

Results: TIO is an infrequent syndrome characterized by alterations in mineral metabolism produced by the presence of phosphaturic tumors. The first case of TIO was described in 1947, but Prader was the first to recognize the causal association of the syndrome in 1959.

Conclusions: To date 130 cases have been described in which the relationship between osteomalacia and tumor has been determined, finding in a good percentage of cases the resolution of the metabolic disorder with surgery.



AS15. PREVENTIVE MEDICINE

PV796 / #416

AUDIT ON THE ADMINISTRATION OF APPROPRIATE VTE PROPHYLAXIS IN SOUTH TIPPERARY GENERAL HOSPITAL, CLONMEL

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Background and Aims: Previous nationwide research suggests that the rate of appropriate VTE prophylaxis ranged between 29.7% to 92%¹. The aim of this audit is to ascertain the rate of appropriate VTE prophylaxis administered in South Tipperary General Hospital, Clonmel.

Methods: Data for this audit was collected from a total of 101 patients admitted to the hospital over 5 consecutive working days. A list of patients admitted on each day was obtained from the daily handover meetings and their Kardex as well as admission proformas were examined at the end of each day. Factors taken into account during the audit include age, if patients were on a NOAC/Warfarin, if they had a contraindication to prophylaxis and if they were mobile. A distinction was also made as to if VTE prophylaxis was prescribed on admission or by the medical team on ward rounds.

Results: The audit showed that of all patients reviewed, 18 were already on a NOAC/warfarin and prescribed no further VTE prophylaxis. 11 patients were not on any NOAC/warfarin, had no contraindication and prescribed no VTE prophylaxis after 16 hours of hospitalisation.

Conclusions: Improving medical diligence and adhering to HSE protocol for VTE prophylaxis appears to be the best course of action going forward.

¹HSE Quality Improvement Division. Preventing blood clots in hospitals - improvement collaborative report, national recommendations and improvement toolkit 2018. <https://www.hse.ie/eng/about/who/qid/nationalsafetyprogrammes/medicationsafety/1-hse-preventing-vte-report-2018.pdf>.

PV797 / #455

INTERNAL MEDICINE AND FORMER ATHLETE'S GENERAL HEALTH

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Background and Aims: Long-term health effects of training in different sports disciplines during adolescence and youth are studied insufficiently. The purpose of the study was to examine the most prevalent health afflictions and ECG features in former athletes.

Methods: We analyzed medical records of 40 males (mean age (M±m) 52.1±2.6 (26-82) yrs) and 34 females (53.1±2.4 (26-80) yrs) had participating in national championships (athletics, cycling, swimming, sport games, rhythmic gymnastics, wrestling). Most of former athletes (69/74) had retired for a minimum of five years and worked as coaches. ECG and exercise stress-testing have made before treatment in outpatient Rehabilitation Clinic.

Results: 53% of females and 63% of males suffered neck or low back pain, shoulder, knee or hip pain. 42% of younger (<50 yrs; n=19) and 29% of older (>50 yrs, n=21) males demonstrated incomplete right bundle branch block, 21 and 19% - sinus bradycardia, early repolarization pattern - 11 and 5%, premature ventricular beats - 14% of older males. Atrial fibrillation had developed only older ones - 24% of males in their 65-70th and 14% of females; 4/8 cases were former highly endurance trained athletes. In males EchoCG has been shown moderate left atrium enlargement. Wide spectrum of comorbidities was seen: in males - predominantly cardiovascular, in females - gastrointestinal and hepatobiliary pathology. 36% of males and 23% of females were obese.

Conclusions: The most former athletes experience orthopaedic pathology with different comorbidity. General practitioners must take into account previous physical activity, especially high intensity endurance training.

PV798 / #502

CORRELATION OF EARLY FAMILY HISTORY OF CARDIOVASCULAR DISEASE AND LIFESTYLE IN A COMMUNITY IN RIO DE JANEIRO-BRAZIL

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Background: Cardiovascular disease (CVD) have multiple risk factors (RF), some are immutable, like positive family history (FH)-those whose first-degree male and female relatives had CVD before 55 and 65 years old respectively. On the other hand, three lifestyle related factors are related to 80% of all cardiovascular premature deaths: tobacco use, poor diet and sedentarism^[1]. The objective is to evaluate the relation between early-onset family CHD and preventable RF, in a population of Rio de Janeiro, Brazil.

Methods: A questionnaire on lifestyle habits was applied and blood pressure (BP) measured according to the guidelines (average of three intervals), during a community action in Rio de Janeiro- Brazil. Project approved by the local ethics committee.

Results: Of the 93 participants, 28% had positive FH for CVD, from whom 61% had high BP and 43% were tobacco users, against 49% and 35% without FH, respectively. Furthermore 11% of those with positive FH exercised for at least 150 minutes/week, against 40% of those without FH.

Conclusions: It was observed that patients with positive family history for CVD had worse rates related to three important pillars of lifestyle. It is important to deeply analyze the family structure of individuals with FH for CVD, as well as to emphasize the epigenetic existence, making it clear that family history is not the persons future if it acts on the mutable aspects.

Danaei G, Ding EL, et al. The Preventable Causes of Death in the United States: Comparative Risk Assessment of Dietary, Lifestyle, and Metabolic Risk Factors. 2009;6(4):e1000058

PV799 / #529

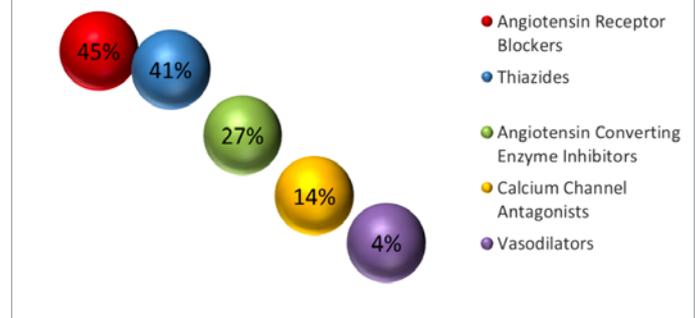
PREVALENCE OF SYSTEMIC ARTERIAL HYPERTENSION AND USE OF ANTIHYPERTENSIVES IN A COMMUNITY CAMPAIGN IN RIO DE JANEIRO

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Background and Aims: Systemic Arterial Hypertension (SAH) is a multifactorial clinical condition. Drugs have been developed with

Graphic 1 - Most used antihypertensive classes among hypertensive people from a community in Brazil (n=98)



#529 Figure.

the purpose to reduce morbimortality. The aim is analyzing the prevalence of SAH in community campaign and the frequency of use of different classes of antihypertensives.

Methods: Cross-sectional, descriptive, transversal study approved by the ethics and research committee. A standardized questionnaire, applied to all participants over 18 during a 2019's community campaign in Rio de Janeiro - Brazil. Blood pressure (BP) was measured at 3 different times and the simple mean was used on results.

Results: of the 98 participants aged 49 ± 14 years (mean \pm standard deviation), 69% women, with the mean BMI of 29 ± 6 kg/m² and the mean BP of 136x79 mmHg. It was observed 50% of participants with previous diagnosis of SAH, but 16% of non-SAH had values above 140x90 mmHg. 45% angiotensin receptor blockers (ARB); 41% thiazides; 27% angiotensin converting enzyme inhibitors (ACEI); 14% calcium channel antagonists; 4% vasodilators.

Conclusions: The most commonly used antihypertensive drugs were ARB and thiazides, followed by ACEI and calcium channel antagonists. Such medications are released free of charge by the government, providing ease of purchase.

PV800 / #565

PREVENTION OF VTE: AN AUDIT AND RE-EVALUATION OF THROMBOPROPHYLAXIS PRESCRIPTION

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Background and Aims: The rate of venous thromboembolism (VTE) is often underestimated amongst hospital inpatients. Given the significant risk factors that come with hospital admission, VTE prophylaxis should be a matter of priority. A number of previous audits were conducted on the rate of prophylaxis in University Hospital Limerick (UHL), showing inadequate prophylaxis prescription in medical in-patients. The audit that follows is a re-evaluation of thromboprophylaxis prescribing among a similar cohort in 2020 following the introduction of a medical proforma

and inclusion of a prompt for VTE prescribing.

Methods: A cross-sectional study of 147 medical inpatients was performed. Exclusion criteria were applied to leave 100 patients. The Padua Prediction Score Risk Assessment Tool was used to stratify patients into risk categories.

Results: 29 patients were not prescribed any form of prophylaxis. 11 of those were in the high risk category, and 16 were moderate risk. 72% of high risk patients were prescribed prophylaxis, however 100% of high risk patients were prescribed prophylaxis when the VTE prompt section was completed. Only 67% of moderate risk patients were prescribed prophylaxis, increasing to 71% when the VTE prompt was completed.

Conclusions: Since the implementation of the VTE prompt in 2008, the rates of thromboprophylaxis have remained high over a consistent period, particularly with high-risk patients. It is essential to assess patients on admission and to ensure adequate prophylaxis is prescribed, particularly in both moderate and high risk patients. We would suggest that similar audits be conducted in other major hospitals to increase awareness of the important of VTE prophylaxis.

Results: of the 22 patients aged 46 ± 14 years, 50% men, the mean BMI was 28 ± 5 kg/m². Average sitting time per week was 1148 min in patients with HBP, compared to 951min in patients without HBP. Patients with BMI ≥ 30 kg/m² had average sitting time per week of 1219 min, compared to 963 min in patients with BMI < 30 kg/m².

Conclusions: Longer sitting time was observed among hypertensive and obese participants. From the waiting room to the consultation, a change in sedentary behavior should be encouraged, because it's intrinsically linked to lifestyle and CVD.

PV801 / #583

LONGER SITTING TIME AMONG HYPERTENSIVE AND OBESE PATIENTS IN COMMUNITY ACTION IN RIO DE JANEIRO - BRAZIL

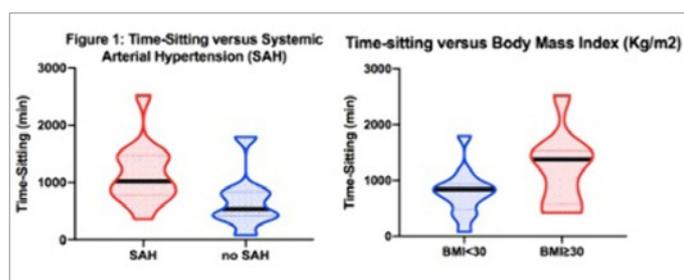
Camilla S. Moreira¹, Flavia Zuchen¹, Bernardo P.D. Freitas¹, Raquel A. Ferreira¹, Natália D. Amboss¹, João Victor B. Alcântara¹, Evelyn V. Klein¹, Louise F.G. De Almeida¹, Mariana M. Banharo¹, Kelly B.G. Barbato¹, Fábio A. Nishijuka^{1,2}

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Background and Aims: Sitting time (ST) is a negative predictor of human physical and mental health. Represent a sedentary behavior which, together with high blood pressure (HBP) and obesity are risk factors for the development of cardiovascular diseases (CVD). We aimed to evaluate the relationship between ST, HBP and obesity.

Methods: Observational, populational, cross-sectioned study approved by the ethics and research committee. International Physical Activity Questionnaire (IPAQ) applied to assess obesity (BMI ≥ 30 kg/m²) and HBP ($\geq 140 \times 90$ mmhg). For analysis, Student's t-test with Prism 8.0 (GraphPad, USA) were used.



#583 Figure



AS16. RARE DISEASES

PV807 / #37

CASE PRESENTATION OF A 32 YEARS OLD MALE DIAGNOSED WITH FABRY DISEASE

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Background and Aims: Fabry disease (FD) is a rare, progressive, X-linked inherited disorder of glycosphingolipid metabolism due to deficient or absent lysosomal alpha-galactosidase A activity. FD is pan-ethnic and the reported annual incidence of 1 in 100,000 may underestimate the true prevalence of the disease. Classically affected hemizygous males, with no residual alpha-galactosidase A activity may display all the characteristic neurological, cutaneous, renal, cardiovascular, cochleo-vestibular and cerebrovascular signs of the disease while heterozygous females have symptoms ranging from mild to severe. We present a case of a 32 years-old male, who suffered from acroparesthesias and anhidrosis since adolescence. He consulted several doctors and considering Juvenile Rheumatoid Arthritis he was prescribed steroids without improvement. He defaulted follow-up for 8 years. In 2018 he consulted our Emergency Department due to skin erythema and was referred to Dermatology Outpatient Department for follow-up. Because of his past history, Dermatology Physician performed skin biopsy and the pathology result revealed angiokeratoma. Thus, he was referred to Internal Medicine for investigation.

Methods: Genetic test was performed and showed hemizygous mutation (c.1133G >A, p. C378Y) in exon 7. Further diagnostic workup was done and eye, cardiac, renal and cerebrovascular involvement were excluded.

Results: Patient was started on enzyme replacement treatment (ERT) with agalsidase beta every two weeks administered in Day Care Hospital, that was well tolerated.

Conclusions: Fabry disease is a rare condition usually diagnosed in pediatric age. Our case, though diagnosed in adulthood, he did not present any complications of the disease and will continue ERT lifelong.

PV808 / #68

KIKUCHI DISEASE, THREE CASES

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Background and Aims: Kikuchi Fujimoto Disease (histolytic necrotizing lymphadenitis), is a rare benign condition of unknown cause. The main symptoms include fever, swollen lymph nodes, mostly cervical, and leucopenia. Kikuchi disease is associated with autoimmune diseases, especially Systemic Lupus Erythematosus.

Methods: *Case 1:* 28 year old female, admitted to the hospital complaining of fever and fatigue. The clinical examination revealed swollen cervical and axillary lymph nodes. Liver and spleen were not palpable. Blood test revealed leucopenia (3800/mL). Lymph biopsy was positive for KFD. NSAIDs were prescribed. Six months later ANA were negative. *Case 2:* 35 year old male, admitted to the hospital due to fever of unknown origin (FUO) and swollen cervical lymph nodes. Clinical examination didn't reveal anything more. ANA were negative, white blood cell count was about 3300/mL, and lymph node biopsy was positive for KFD. *Case 3:* 67 year old male, admitted to the hospital due to fever, lymphadenitis and joint pain. Clinical examination revealed enlargement of liver and spleen. Blood test revealed pancytopenia, positive coombs, positive ANA and decreased complement. A diagnosis of possible SLE was established. We administered corticosteroids and hydroxychloroquine. Lymph node biopsy was positive for KFD.

Results: Patient 2, six months later, complained of swollen and painful joints. ANA were positive. Patient's 3 condition worsened and immunosuppressants were administered, but he died a month later from hemophagocytic syndrome.

Conclusions: Conclusion According to bibliography, the histological image of lymph nodes in KFD doesn't differentiate from SLE. Patients with KFD should be followed-up for the possibility of the development SLE.

Germain Orphanet Journal of Rare diseases, 2010, 5:30.

PV809 / #91

TOXIC EPIDERMAL NECROLYSIS

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Background and Aims: Toxic Epidermal Necrolysis (TENS) also known as Lyell's Syndrome is a rare and life threatening mucocutaneous condition. It has to be managed aggressively as late diagnosis will lead to high mortality rate. TENS tends to overlap with Stevens Johnsons Syndrome (SJS). If the body surface area involvement is more than 30% then it would make it TENS. Patients should be urgently referred to Burns Unit or ITU for further management.

Methods: Case report.

Results: A 85 year-old gentleman presented to hospital with flu like symptoms and maculo paular rash. He had significant comorbidities and on medications which would have attributed to the rash. His rash clinically deteriorated as it started to blister. He had positive Nikolsky sign and had skin biopsy taken which confirmed Toxic Epidermal Necrolysis. Despite stopping his medications, treating him with steroids and antibiotics he did not improve. He developed multi organ failure and passed away.

Conclusions: Tens is a rare Muco cutaneous skin condition mainly Drug induced. It is characterized by widespread apoptosis of keratinocytes and splitting of dermal layers. Diagnosis is mainly clinical and histological (skin biopsy). Treatment is symptomatic under supervision of ITU and Burns unit.

Schwartz RA, McDonough PH, Lee BW. Toxic epidermal necrolysis: Part II. Prognosis, sequelae, diagnosis, differential diagnosis, prevention and treatment. *J Am Acad Dermatol* 2013; 69:187.e1.

Creamer D, Walsh SA, Dzielwski P, et al. U.K. Guidelines for the management of Stevens -Johnson syndrome/toxic epidermal necrolysis in adults 2016. *Br J Dermatol* 2016; 174:1194.

PV810 / #93

ETIOLOGIES OF POLYCLONAL HYPERGAMMAGLOBULINEMIA: A SCOPING REVIEW

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Background and Aims: As no guidelines on the diagnosis of polyclonal hypergammaglobulinemia exist, we conducted a scoping review to identify, synthesize and appraise the extent of existing literature on polyclonal gammopathy and its etiologies.

Methods: A scoping review of all records in English and French was performed using the databases Medline, Web of Science et Cochrane Database according to the PRISMA methodology from base inception to August, the first, 2017. On Medline database key words employed were (((“Hypergammaglobulinemia”[Mesh])) NOT “Multiple Myeloma”[Mesh]) NOT “Waldenstrom

Macroglobulinemia”[Mesh]) NOT “Monoclonal Gammopathy of Undetermined Significance”[Mesh] with filters «Humans», «English», «French», «19 years and more» and «Polyclonal gammopathy» with filter «Humans».

Results: 1805 records have been identified through database searching. 114 etiologies related to polyclonal hypergammaglobulinemia on serum proteins electrophoresis have been identified. The most reported etiologies of polyclonal hypergammaglobulinemia were angioimmunoblastic lymphadenopathy (9.1%), HIV (9%), Sjögren disease (7.3%) and IgG4 related disease (6%). For 68 etiologies (59.6%), only one record has been found. 16 articles reported complications of polyclonal hypergammaglobulinemia mainly related to hyperviscosity.

Conclusions: This is the first scoping review of polyclonal hypergammaglobulinemia and its etiologies. New entities known to be associated to polyclonal hypergammaglobulinemia are identified since a previous review.

PV812 / #153

GOOD'S SYNDROME: ASSOCIATION BETWEEN THYMOMA AND ACQUIRED IMMUNODEFICIENCY.

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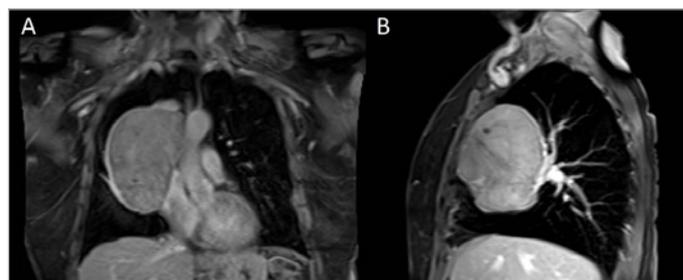
¹Instituto Aggeu Magalhães/Fiocruz, Parasitology, Recife, Brazil

²Real Hospital Português, Internal Medicine, RECIFE, Brazil

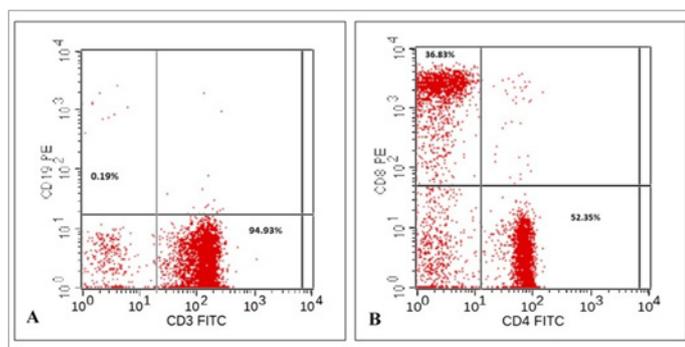
Background and Aims: Thymomas are thymic epithelial tumors with high frequency immune paraneoplastic syndromes. Good's syndrome (GS) is association between thymoma and acquired humoral immunodeficiency.

Methods: Report a case of woman with GS.

Results: A previously healthy 89 years old woman presented with recurrent respiratory infections for two years (4 annual episodes requiring oral antibiotics). She had thymoma type B1 (Figure #153 1A and B) and no treatment was established due to high age-related surgical risk and patient choice. Serum protein electrophoresis showed reduction in gamma-globulin fraction. Measurement of serum immunoglobulins: IgG: 650 (RR: 700-1600); IgM: 32 (RR:



#153 Figure 1: Magnetic resonance imaging of the chest in (A) coronal (B) sagittal view.



#153 Figure 2: Markers in lymphocyte population. (A) T lymphocyte (CD3) × B lymphocyte (CD19); (B) helper T lymphocyte (CD4) × cytotoxic T lymphocyte (CD8).

40-230); IgA: 80.6 (RR: 70-400); IgG subclasses: IgG1: 480 (RR: 405-1011); IgG2: 109 (RR: 169-786); IgG3: 8.6 (RR: 11-85); IgG4: 5.5 (RR: 3-201), confirmed GS. Lymphocyte profile assessed by flow cytometry demonstrated normal T lymphocyte (CD3): 6103 (94.92%), CD4 T lymphocyte: 3366, CD8 T lymphocyte: 2368; but B lymphocyte (CD19): 12 (0.19%), practically absent. A monthly infusion of intravenous immunoglobulin at a dose of 500 mg/kg has been initiated with no infections reported thereafter.

Conclusions: The diagnosis of GS is typically delayed or overlooked. Inexpensive tests such as protein electrophoresis can alert the clinician to the need for more specific investigation. Early recognition and rapid treatment can alter the natural course of GS and to reduce morbidity.

PV813 / #155

WILSON'S DISEASE: CAN IT OCCUR AT ANY AGE?

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²Real Hospital Português, Internal Medicine, Recife, Brazil

Background and Aims: Wilson's disease (WD) is an autosomal recessive disorder of copper metabolism, characterized by its accumulation in tissues which results in hepatic, neurological and/or psychiatric symptoms. Symptoms usually first appear in second and third decades of life, but there are several reports of late onset Wilson disease.

Methods: Report a case of an elderly man diagnosed with late-onset Wilson's disease with mild neurological symptoms and new mutation in ATP7B gene.

Results: 70 years old man, with action tremor in distal upper extremity, deteriorated handwriting and micrographi. Tremor was present predominantly in right hand and emerged during goal-directed activity. Ceruloplasmin: 16.3 mg/dl (RR: 18 – 45 mg/dl) was low. 24h urinary copper excretion was 194 mg/24h (normal <100 mg/24h). Anterior segment examination found early

Kayser-Fleischer rings in both eyes. There was no liver disease. Brain MRI had no copper deposits. Molecular genetic analyses of the ATP7B gene found the variant c.98T >C p (Met33Thr) in exon 2 in heterozygosis and the Variant c.2224G >A (Val742Ile) in exon 8 in heterozygosis. After one year with zinc treatment there was a sustained fall in urinary copper and reduction in Kayser-Fleischer rings. We attribute the mild presentation of the disease due missense-type mutation leading to low penetrance. The exon 8 mutation has being reported for the first time.

Conclusions: Genetic sequencing allows new genetic mutations discovery. The age shouldn't be determinant to exclude WD. Although majority WD patients present symptoms between ages 5-35, there are reports of the disease as early as 3 years old and as late as 84 years old.

PV814 / #166

A CLINICAL CASE: LANGERHANS' CELL HISTIOCYTOSIS

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Background and Aims: Internists commonly experience difficulties verifying this diagnosis. Internists commonly experience difficulties verifying this diagnosis.

Methods: A case description.

Results: Patient D., 28 years old. He grew and developed normally; a smoker (10 years, 15 cigarettes a day); the occupation has been associated with intense physical activity. The family history: no hereditary pathology or lung disease. The patient's condition first deteriorated in July-August 2018, when sharp pains in his chest and discomfort while breathing were observed, as well as a feeling of lack of air and cough; all improved by itself. Another deterioration occurred on December 22, 2018, when a left-sided spontaneous pneumothorax was diagnosed. A CT scan showed signs of multiple cystic lung disease. Later, there were repeated relapses of spontaneous pneumothorax on both sides with the pleural drainage. Videothoracoscopic lung biopsy, right-sided pleurodesis on January 17, 2019. The histological report stated proliferative giant cell pleurisy, idiopathic interstitial pneumonia? According to the examination data, no significant pathology in other organs and systems was found. Deficiency of a1-antitrypsin was excluded. The spirometry with time presented a decrease in lung volume indicators (FVC, 58%-43%-31%). Then the patient was treated at the Moscow Hospital. A thoracic CT showed signs of bullous emphysema of the lungs. There was a follow-up consultation on the histological material. Conclusion: Langerhans' cell histiocytosis. An immunohistochemical study

showed an accumulation of histiocytes that expressed langerin and CD1a. The patient was examined by a thoracic surgeon; a lung transplantation was recommended.

Conclusions: This clinical case demonstrates issues hindering diagnosis.

PV816 / #304

MADELUNG DISEASE OR LAUNOIS-BENSAUDE SYNDROME: RARE METABOLIC CONDITION

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Background and Aims: Madelung disease, multiple symmetric lipomatosis (MLS), benign symmetric lipomatosis (BSL) or Launois-Bensaude syndrome, is a rare metabolic condition characterized by symmetric, non-encapsulated fat deposits on the patient's body. It was first described by Benjamin Brody in 1846. Launois-Bensaude syndrome may cause breathing difficulties, the most common reasons why the patients decide to undergo treatment is aesthetics and the worsening perception.

Clinical Case: 61-year-old man, smoker and alcohol abuse with secondary cirrhosis (Child- Pugh C10) and type II hepatorenal syndrome (CK- EPI 22 ml/min/1.73m²), dyslipidemia with hyperuricemia, COPD. Physical examination with fat deposits located around the neck (horse collar); parotideomasseteric areas (hamster's cheek pouches) and around shoulders (body a pseudo-athletic appearance). Blood test with total cholesterol 147 mg/dl (LDL 107/ HDL 21 mg/dl), total bilirubin 1.4 mg/dl (direct bilirubin 0.8 mg), GOT/SGT 36/81 U/L, transferrin saturation index 20% with ferritin 216 ng/ml, vitamin B 12 and folic acid in normal values. Thyrotropin 134 microUI/L (T3 0.44 ng/dl). Hemoglobin 9 g/dl, hematocrit 28.5% (MCV 103.3 fL, MCH 32.6 pg) and platelets 103000/microL. Diagnosed with multifactorial anemia and hypothyroidism, treated with levothyroxine and ferroglycine sulfate.

Results: Madelung disease is accompanied by hypothyroidism, diabetes, megalocytic anemia, cirrhosis, epilepsy, or polyneuropathies connected. In differential diagnosis the following should be considered: Cushing disease, obesity, neck cysts, salivary gland and thyroid gland diseases, leukemia and soft-tissue sarcoma. Dietary treatment is inefficient.

Conclusions: Because of the rarity of this disease as well as the controversies connected with its treatment, it seems interesting to present the case of our patient.

PV817 / #336

A (NOT SO BENIGN) CASE OF GENERALIZED EXANTHEMATOUS PUSTULOSIS

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Background and Aims: Acute generalized exanthematous pustulosis (AGEP) is a severe cutaneous adverse reaction. In over 90% of cases, it is associated with the ingestion of drugs, mostly aminopenicillins, sulfonamides, hydroxychloroquine and anti-fungal agents. Clinical findings include small non-follicular, sterile pustules on an erythematous base, leukocytosis with an elevated neutrophil count and fever. Evolution is usually benign with clinical resolution in 2 weeks. Mortality rate is less than 5%. Our aim is to report a case of AGEP with an unexpected evolution.

Methods: A 94-year-old woman developed a fever and pustular lesions on the arms and hands three days after initiating piperacillin-tazobactam and one day after switching to amoxicillin and clavulanic acid due to a urinary infection. Although initially admitted with no major laboratory findings, a complete blood count that day showed leukocytosis of 25,900 u/L with neutrophilia (22,090 u/L) and elevated C-reactive protein. All new drugs were suspended and a skin biopsy was executed.

Results: The patient evolved with severe clinical worsening. Hypotension and respiratory failure led to death only two days after the first appearance of the pustular lesions. Skin biopsy showed intraepidermal neutrophilic pustules with no evidence of infection. Findings were consistent with AGEP.

Conclusions: AGEP is a rare cutaneous condition mostly described as benign. The main treatment is removal of the causative drug, which leads to improvement in symptoms within several days. But in a world with ageing populations and populations with more comorbidities it is important to be aware of this diagnosis and of its possible worse outcome.

PV819 / #387

PARRY ROMBERG SYNDROME, A RARE AUTOIMMUNE DISEASE

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Background and Aims: Parry-Romberg syndrome, or progressive hemifacial atrophy, is described as an autoimmune condition on the same spectrum of disease as localized scleroderma en coupe de sabre, a variant of localized scleroderma involving the frontoparietal face and skull, characterized by a slow unilateral progressing atrophy that may affect skin, fat, muscle, and bone.

Methods: We describe here a case of a 34-year-old man presented with a 3-year disfiguration of the left side of his face.

Results: A clinical examination revealed significant facial asymmetry evidenced by atrophy of the chin, upper lip, zygomatic region, and forehead. The patient presented with alopecia too, treated efficiently by hydroxychloroquine. There was no extra-cutaneous involvement especially no neurological or ophthalmological complains. Blood tests showed the positivity of ANA(320). Negative Raynaud test ruled out a diagnosis of scleroderma. A therapy with systemic corticosteroids and methotrexate was initiated, and a reconstructive intervention has been discussed.

Conclusions: The pathogenesis of this disease is not currently known, many treatment options are available that may limit disease progression and provide patients with both functional and aesthetic improvement. A multidisciplinary collaboration between, dermatologists, internists, and aesthetic surgeons is necessary for an optimal management for this rare syndrome.

PV820 / #396

FAMILIAL MEDITERRANEAN FEVER

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Background and Aims: A 26-year-old male with consanguineous parents suffered during one week two episodes of fever and inflammation of the lower left limb (LLL) when he was aged 10 and 15. He now presents the same episode, preceded by left groin pain. No episodes in this one or in previous of abdominal, chest pain, dyspnoea, skin eruptions or pericarditis.

Methods: Examination revealed an increase in the perimeter of the LLL from ankle to knee. No changes in temperature or color when comparing to the contralateral limb. An increase of erythrocyte sedimentation rate and in IgG4 was found in blood test. Eco-doppler was performed with no abnormal findings.

Results: Initially, a deep venous thrombosis was suspected, being discarded due to normal range of D-dimer and eco-doppler results. Based on the patients' background, the possibility of a hereditary recurrent fever syndrome was assessed. LLL inflammation with elevation of inflammatory parameters without elevation of IgD or clinical manifestations of conjunctivitis or aphthous ulcers guided us to Familial Mediterranean Fever (FMF). Colchicine was empirically prescribed and after one month a remarkable clinical improvement was reported.

Conclusions: FMF is an autosomal recessive hereditary disease that should be suspected in patients with recurrent fever associated to pericarditis, abdominal pain, peritonitis, synovitis, or erysipeloid skin eruptions. Suspicion is higher if a first-degree relative has been diagnosed with FMF. The genetic study gives the definitive diagnosis. However, even with negative results, the resolution after six months treatment with colchicine and the recurrence of the clinical features when withdrawing guides us to this diagnosis.

PV822 / #490

PRIMARY ANGIOSARCOMA OF THE SMALL INTESTINE WITH METASTASIS TO THE MUSCLE : A CASE REPORT

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Background and Aims: Angiosarcoma is a rare high-grade neoplasm that frequently involves the skin and subcutaneous tissue. Primary angiosarcoma of the small intestine is extremely rare. Here by, we describe a rare case of an angiosarcoma of the small intestine with muscle and liver metastasis.

Methods: A 55-year-old patient with no prior history of intraabdominal radiation or exposure to carcinogens, presented with a 4-month history of pain in the lower quadrant of the abdomen, which had worsened in the last week. The patient experienced a deterioration of the general condition, fatigue and an 8 kg weight loss over the last 4 months.

Results: Physical examination revealed tenderness in the left lower abdominal region, pain in the gluteal region as well as lymphadenopathy of the left sterno-clavicular node and in the axillary regions. His hemoglobin was 8.2 mg/dl. The level of Erythrocyte sedimentation rate was 102 mm/hour. Computed tomography (CT) scan of the chest and abdomen showed a liver mass, a thickened intestinal wall located at the end of the jejunum, and a few enlarged lymph nodes in the abdomen. Contrast-enhanced CT revealed diffuse enhancement of the abdominal wall muscles, of psoas and gluteal muscles. A biopsy of the axillary node confirmed the nature of the tumor. The diagnosis of angiosarcoma of the small intestine with liver and muscle metastasis was made. The patient died within 1 week of the diagnosis due to severe cachexia.

Conclusions: Angiosarcoma of the gastrointestinal tract is very aggressive and rapidly metastatic. The survival rate in these patients is extremely poor.

PV823 / #491

ANTITHROMBOTIC THERAPY IN SUBJECTS WITH HEREDITARY HEMORRHAGIC TELANGIECTASIA: UPDATE ON A PROSPECTIVE STUDY FROM GEMELLI MULTIDISCIPLINARY GROUP

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Background and Aims: Hereditary hemorrhagic telangiectasia (HHT) is a rare autosomal dominant disease with an overwhelming bleeding propensity, but conditions requiring antithrombotic therapy (AT) may develop in HHT patients. However, precise

informations on tolerance of AT in HHT patients is lacking. Here, we present an update on an ongoing prospective study to evaluate the safety of AT in HHT subjects from the Gemelli Hospital HHT Registry ^[1].

Methods: The study is enrolling HHT subjects who receive an AT prescription by physicians of the HHT Centre. We are registering bleeding complications during AT.

Results: So far, we enrolled 17 HHT subjects, for a total of 19 AT courses. In a mean follow-up of 13.4±7.2 months, we reported one major bleeding (severe episode of nosebleed), one clinically-relevant non major bleeding (hematuria), both during anticoagulant courses, and no minor bleedings except for epistaxis. Worsening of epistaxis, assessed with the Epistaxis Severity Score (ESS), was documented in 4 AT courses (21.1%). There were no significant changes in the need of blood transfusion and the mean haemoglobin levels measured before and during AT.

Conclusions: Our interim results suggest that HHT patients can tolerate antithrombotic agents and that AT may be used in a sufficiently safe manner in these patients, when it is prescribed in a multidisciplinary setting. More patients and a longer follow-up are needed to confirm these findings.

^[1]Gaetani E, Agostini F, Porfidia A et al. Safety of antithrombotic therapy in subjects with hereditary hemorrhagic telangiectasia: prospective data from a multidisciplinary working group. *Orphanet J Rare Dis* 2019,14,298.

PV824 / #563

ATTR AMYLOIDOSIS: DIFFICULT DIAGNOSIS AT FIRST GLANCE, BUT EASY AFTER A LONGITUDINAL FOLLOW UP

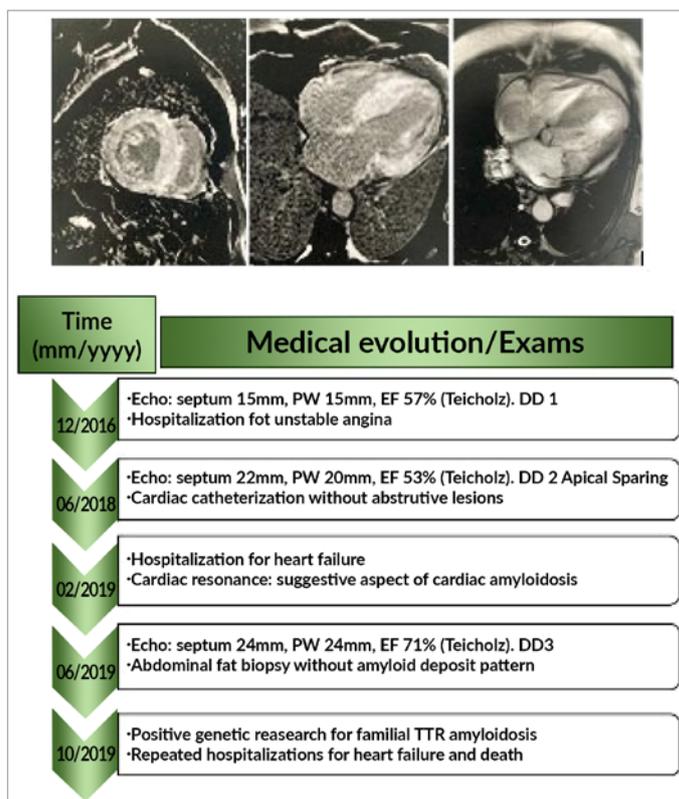
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Background and Aims: Stable angina, hypertrophic cardiomyopathy or hypertensive heart disease are possible initial presentations of amyloidosis. This wide clinical variety generally delays diagnosis and leads to misconduct. In patients with hypertensive heart disease, but with a rapid increase in the interventricular septum, it is necessary to seek different diagnoses, such as amyloidosis.

Methods: Case report.

Results: A 78-year-old man with systemic arterial hypertension followed by stable angina underwent coronary angiography without obstructive lesions, evolving with symptoms suggestive of heart failure. Echocardiographic image with abnormal septal enlargement and apical sparing. Research started for etiology of amyloidosis (figure #563). Cardiac resonance imaging whose images suggest cardiac amyloidosis with an extensive region of intramyocardial fibrosis was performed. Finally, we requested genetic research for amyloidosis whose result was positive with variant (Val142Ile). Electroneuromyography without polyneuropathy.



#563 Figure: Cardiac resonance suggestive of amyloidosis, clinical evolution showing complementary exams and thickening in the last three years.

Conclusions: It is imperative to investigate amyloidosis in patients with preserved heart failure of ejection fraction with abnormal septal enlargement, with presentation of a variant that most commonly affects the cardiac part.

PV825 / #574

REMOTE CONSULTATION FOR SUBJECTS WITH HEREDITARY HEMORRHAGIC TELANGIECTASIA DURING COVID-19 PANDEMIC: DATA FROM A MULTIDISCIPLINARY GROUP

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Background and Aims: During COVID-19 pandemic, most non-urgent clinical activities were suspended, including follow-up visits for patients affected by hereditary hemorrhagic telangiectasia (HHT). We wanted to provide clinical and psychological support to HHT patients through remote consultation in order to control the complications of the disease.

Methods: Every two weeks from March to September 2020, a

group of physicians (internist, ENT, psychiatrist) contacted by phone and mail HHT patients of our Centre who accepted to participate in the study. The outcomes considered were the need of hospitalization, blood transfusions, intravenous or oral iron supplementation and the worsening of epistaxis. We compared these parameters with the same ones calculated from March 2019 to September 2019 in the same population.

Results: 45 HHT patients were included in the study. We found that 9 patients have been hospitalized and 6 patients needed blood transfusions. Twenty-four patients needed iron supplementation (18 oral; 6 intravenous). There were no significant differences in the same outcomes measured in the same period the year before, except for the number of patients in oral iron therapy, significantly higher in the pandemic period than in the previous year (18/45 versus 4/45, respectively, $p < 0,02$). 5 patients (11.1%) reported worsening of epistaxis but after receiving telephone advices from the ENT physician, all patients reported significant improvement of epistaxis.

Conclusions: Clinical support by remote consultation and early prescription of oral iron therapy allowed us not to increase need of hospitalization, blood transfusion and intravenous iron therapy in HHT patients, a frail population, during the critical period of COVID-19 pandemic.

PV826 / #585

ACUTE LIVER INJURY AND APLASTIC ANEMIA IN SECONDARY HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS: A CASE REPORT

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Background and Aims: Hemophagocytic Lymphohistiocytosis (HLH) is a rare but life-threatening hyperinflammatory syndrome caused by pathologic and ineffective immune activation. HLH occurs in patients undergoing infections, malignancies or autoimmune diseases. It results in fever, hepatosplenomegaly, cytopenias and tissue disruption by activated macrophages. Liver involvement can rarely mimic an acute hepatitis. Prompt initiation of correct therapy is essential for the prognosis of affected patients. The greatest barrier is a delay in diagnosis, due to the lack of specificity of clinical presentation.

Methods: Case report.

Results: A 21 years old male was admitted for jaundice. He reported a 2-week history of peripheral monolateral facial palsy, malaise and bilateral non-purulent conjunctivitis. His past medical and family history were unremarkable. Physical examination revealed jaundice, hepatosplenomegaly and a papular rash. Laboratory investigation revealed total bilirubin 28.44 mg/dL, ALT 2836 UI/L, AST 1,779

UI/L, gamma- globulins 2.2%, ferritin 1,314 ng/mL, triglycerides 430 mg/dL, sCD25 7,500 pg/mL. Bone marrow biopsy showed trilineage hypoplasia and erythrophagocytosis. Percutaneous liver biopsy showed acute necrosis and numerous CD68+ macrophages. Patient underwent treatment with intravenous immunoglobulin, ciclosporin and dexamethasone. The clinical course was complicated by *Listeria* meningoencephalitis and MSSA bacteremia. Within 4 weeks his liver function returned almost normal with ALT 62 UI/L, AST 40 UI/L, total bilirubin 1.9 mg/dL, but blood count showed a worsening in cytopenias. A further bone marrow examination confirmed aplastic anemia. Patient was referred to Hematology department.

Conclusions: HLH simulates other clinical conditions, as in the case we reported. High index of awareness is needed to prevent high mortality resulting from multi-organ failure.

PV827 / #813

SOLITARY FIBROUS TUMOR OF THE PLEURA: CASE REPORT

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Background: Solitary fibrous tumours (SFTs) are fibroblastic mesenchymal tumours displaying a branching vascular pattern, responsible for the now obsolete term hemangiopericytoma. SFTs are rare in children and adolescents, usually affecting adults aged 20-70, with no gender predilection. SFTs are anatomically ubiquitous neoplasms, arising from the pleura, pericardium, meninges, thoracic wall, mediastinum, retroperitoneum, the deep soft tissue of the extremities or of the head and neck (particularly affecting the orbit), or from the subcutaneous tissue. Other primary tumour locations reported include the salivary glands, different segments of the gastrointestinal tract, the liver, the lungs, the thyroid gland, the kidneys and the adrenals, as well as testis, spermatic cord or prostate.

Methods: We present a case of SFTPs alongside a review of the typical clinical, imagistic and pathologic features consistent with this diagnosis. Imagistic investigations are useful in the incipient evaluation of SFTPs, and the histopathological and immunohistochemical examinations after surgical resection are mandatory for establishing the diagnosis and for differentiating SFTPs from other aetiologies of pleural masses.

Results: The unpredictable evolution (10%-20% of the cases reported in literature display malignant features) and limited data regarding the treatment needs an early detection, a complete surgical resection and long-term imagistic follow-up.

Conclusions: Although imagistic investigations are useful in the incipient evaluation of SFTPs, the histopathological and immunohistochemical examinations are mandatory for establishing the diagnosis and for differentiating SFTPs from other aetiologies of pleural masses. There is limited data regarding the treatment, with complete surgical resection being the golden standard for both benign and malignant SFTPs.

PV828 / #848

AGENESIS OF THE INFERIOR VENA CAVA: AN UNLIKELY CAUSE OF DEEP VEIN THROMBOSIS

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Case Description: Agenesis of Inferior Vena Cava (IVC) is a rare congenital anomaly, usually asymptomatic. However, venous thrombotic events are the most frequent occurrences. A 43-year-old man was admitted to the emergency room with pain in his right leg that had been worsening for two weeks, with no signs dyspnoea or chest pain. Other than a week of diarrhea and fever accompanied with an episode of syncope, that stopped two weeks earlier, there was no evidence of other recent diseases. The patient also denied local trauma. Regarding relevant personal history he only reported hypertension and chronic venous insufficiency. His physical cardiac, respiratory and abdominal examination was normal. The only relevant positive signs were a slight edoema and increased surface temperature of the lower right limb with referred pain mainly in the gemelar region and thigh, and with exuberant, engorged varicose veins in both legs. Laboratory evaluation pointed out an extremely high value of D-dimers (60 ug/mL >0.5 ug/mL) and high LDH (450 U/L >250 U/L).

Clinical Hypothesis: With such lab results, a previous history of fever and diarrhea and taking into account the pandemic panorama, the hypothesis of SARS-CoV-2 infection causing large thrombotic event was considered.

Diagnostic Pathways: Thoraco-abdomino-pelvic CT was performed only to reveal a rare condition, the absence of IVC, and the presence of multiple varicose venous structures in the right obturator territory extending to thrombosed right femoral vein. SARS-CoV-2 test was negative.

Conclusion and Discussion: He was diagnosed with deep vein thrombosis due to an IVC agenesis with indication for ad eternum hypocoagulation.

PV829 / #876

ADULT ONSET MELAS SYNDROME PRESENTING WITH DISTRIBUTIVE SHOCK

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Background and Aims: Mitochondrial encephalomyopathy with lactic acidosis and stroke-like episodes (MELAS) is an inherited disorder caused by mutations in mitochondrial DNA or mitochondrial related nuclear DNA, leading to varied range of symptoms.

Methods: Case report.

Results: A 44 year-old woman was admitted because of repeated episodes of distributive shock, lactic acidosis and non-pharmacological hypoglycemia. She also reported headache, myopathy, bradypsychia, asthenia and severe constipation 6 months prior to admission. She never suffered any stroke-like episodes or other neurologic manifestations. Her medical history included type 2 diabetes, dyslipidemia, autoimmune hepatitis, chronic constipation and anxiety. Motor and mental development was normal. Her sister suffered from growth hormone deficiency and the patient's child has ectopic neurohypophysis, requiring hormonal treatment. At admission, physical examination showed generalized weakness, bilateral ptosis without ophthalmoparesis and abdominal distension. Laboratory tests revealed cholestasis, mild iron deficiency anemia and elevated serum lactate (4.1 mmol/L) and pyruvate (1.06 mg/dL). Cranial MR was performed without abnormalities. A neurophysiologic study revealed normal sensory and motor nerve conduction velocities. Finally, a biceps branchii muscle biopsy revealed abundant ragged red fibers with a mosaic of COX positive and COX negative fibers. Biochemical analysis of muscle tissue demonstrated reduced activity of the mitochondrial respiratory chain. Mitochondrial genome sequencing identified the m.3243A >G variant in the gene MT-TL1 with a 64% of heteroplasmy. Treatment with L-arginine (dose 0.3 g/kg/day orally) was initiated and the patient was discharged with multidisciplinary outpatient follow-up.

Conclusions: When a mitochondrial myopathy has multisystemic involvement and starts in adulthood, MELAS diagnosis should be considered.

PV831 / #997

CALCINOSIS UNIVERSALIS: A RARE DIAGNOSIS

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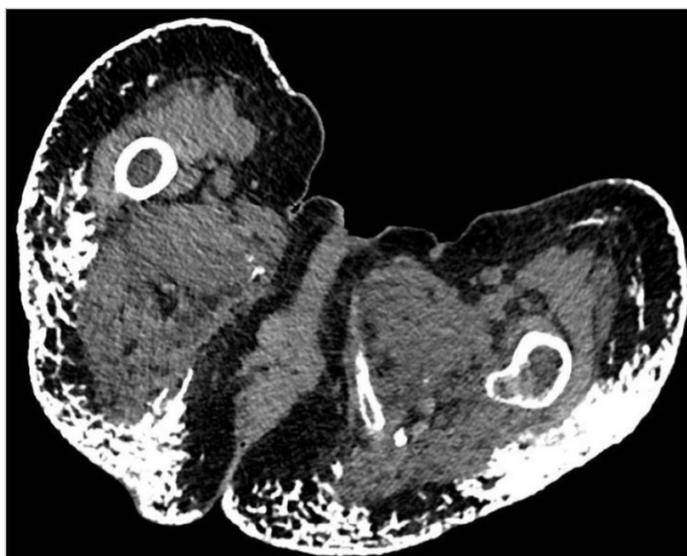
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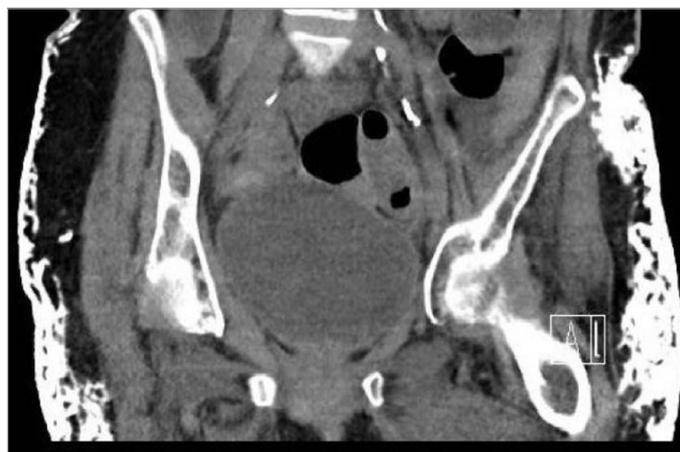
Background and Aims: Calcinosis universalis is characterized by the deposit of calcium salts in skin, subcutaneous tissue, tendons and muscles. Calcinosis, although frequent in dermatomyositis and Systemic Sclerosis (SSc), is a rare finding in adults.

Methods: To Report a rapidly progressive case of calcinosis universalis secondary to diffuse cutaneous SSc with an overlap with Dermatopolymyositis.

Results: A 58-year-old woman with progressive skin tightening, initially in the gluteal region bilaterally (Figure #997 1 and 2), associated with pain and weight loss. Symptoms initiated approximately 6 months, leading to limitations of basic-living activities. In Physical exam was noticed Raynaud's phenomenon, telangiectasia on the lower lip, as well as Pitting Scars in hand fingers. Thickening of soft tissues were present diffusely in the body, especially in the upper, buttocks and lower limbs. Past history of Pulmonary Hypertension, Restrictive Pulmonary Disease, and severe aortic stenosis due to valve calcification. Aortic stenosis was treated with aortic valve transcatheter implantation in the previous year. In the laboratory, nuclear and nucleolar ANA reagent (1/80) were observed. But Anti Jo1, Anti SCL 70, Anti RNP, Anti LA, Anti Ro, Anti Centromere were negative. Creatine kinase (CK) was: 800 (reference range <294). CK decreased with treatment, but response to calcinosis to immunosuppressive treatment with Mycophenolate Mofetil and intravenous immunoglobulin was poor.



#997 Figure 1: Computed tomography of the pelvis showing calcinosis in the subcutaneous.



#997 Figure 2: Computed tomography of the pelvis showing calcinosis in the subcutaneous.

Conclusions: Universal calcinosis may be the most important clinical manifestation of SSc/dermatopolymyositis. Once installed, there is no standard therapy. Biphosphonates, steroids and other immunosuppressive medications can be tested.

PV832 / #1036

SECONDARY HEMOPHAGOCYTIC SYNDROME IN A PATIENT WITH DISSEMINATED TUBERCULOSIS

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Case Description: Hemophagocytic syndrome (HPS) is an aggressive and life-threatening hyperinflammatory condition that can affect patients of any age. Many have a predisposing genetic defect, and/or an immunologic trigger, which can include infection, malignancy or rheumatologic disorder, leading to the same inflammatory phenotype. The authors present the case of a 40-year-old woman with psoriatic arthritis treated with Adalimumab that presented to the Emergency Department with fever, non-productive cough, diarrhea, dysuria and urinary frequency with 1 week of evolution.

Clinical Hypothesis: Sepsis was diagnosed with a possible starting point in acute pyelonephritis and with neurological, cardiovascular and hematological dysfunctions. Intravenous ceftriaxone was started empirically, but fever persisted and a distributive shock ensued.

Diagnostic Pathways: To exclude local complications and search for alternative diagnostics a thoracoabdominal computed tomography scan was done and revealed a subcarinal adenopathic conglomerate, bilateral pulmonary micronodules and hepatosplenomegaly. There was a marked increase in ferritin (23346 ng/mL) and some mild pancytopenia and hepatitis. Mycobacterium tuberculosis was isolated in peripheral blood, bronchoalveolar lavage and ascitic fluid and given the clinical severity, it was decided to start dexamethasone and antibacterials.

Raised sCD25 and hemophagocytosis in bone marrow helped to confirm HPS. Gradual resolution of symptoms and laboratorial abnormalities ensued.

Conclusion and Discussion: This case reinforces the concept of HPS as an important diagnostic consideration in acutely ill patients with multiorgan involvement and fever of unknown origin. Since the manifestations are mostly unspecific, a high degree of suspicion is important to implement adequate and timely therapy which include medication to suppress severe hyperinflammation and to remove the immunologic trigger.

PV833 / #1078

FATIGUE AND PSYCHIATRIC STATUS IN SJÖGREN SYNDROME

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Background and Aims: Sjögren syndrome (SS) as a prototype of systemic autoimmune diseases is characterized by various manifestations. Glandular involvement responsible of sicca syndrome can be very invalidating and impact physic, psychological and social functions.

Methods: It's an observational descriptive and analytic study based on SS patients 'files who were hospitalized in the internal medicine department. The study was realized between February and May 2018. Fatigue and the psychiatric status were evaluated respectively by PICHOT score and Hamilton scale.

Results: Forty-seven patients were included (46 women and 1 man) with a mean age of 51 years [24-74 years]. Glandular manifestations revealed the disease in 91.6% of the cases. Extra-glandular involvement was noted in 95.7% of the patients, especially rheumatologic (83%) and pulmonary (46.6%) manifestations. The disease activity was low (25.5%), moderate (46.8%) and high (8.5%). All the patients had fatigue with a PICHOT score ≥ 1 . An extreme fatigue (score ≥ 22) was found in 42.6% of the cases. Based on the Hamilton scale, 8.5% of the patients had mild depression, 34% had moderate depression and 42.6% had severe depression. Significant correlations were found between the disease activity and the fatigue score ($p=0.001$, $r=0.45$) and also between the disease activity and the Hamilton scale ($p=0.031$, $r=0.3$).

Conclusions: SS impact highly the patients 'general health in different domains. Professionals should take in consideration this impact in addition to organic damage treatment.

PV834 / #1097

SARCOIDOSIS: EPIDEMIOLOGICAL, CLINICAL, PARACLINICAL, THERAPEUTIC AND EVOLUTIVE PROFILE

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Background and Aims: Sarcoidosis is a systemic granulomatous disease affecting young adults. It's characterized by thoracic features. It can be revealed by various extra-thoracic manifestations. A histological proof is necessary in the majority of the cases.

Methods: A descriptive retrospective study including 30 patients with the diagnosis of sarcoidosis, hospitalized in the internal medicine department from January 1998 to December 2017.

Results: Patients were divided into 25 women and 5 men. They had a mean age of 53 years [19-70 years]. The most frequent localizations were: thoracic (86.7%), ganglionic (40%), ocular (26.7%), neurologic (20%) and hepato-splenic (13.3%). Revealing signs were: general condition alteration, respiratory manifestations, ocular manifestations and nodosum erythema. Radiologic stage II was more frequent (43.3%). Angiotensin-converting enzyme was high in 30% of the cases. Hypercalcemia was noted in 23.3% of the cases. A biological inflammatory syndrome was present in 80% of the patients. Therapeutic abstention was preconized in 16.7% of the cases. All the other patients received a corticosteroid treatment. Immunosuppressant medications (16.7%) were: the methotrexate, ciclosporin, mycophenolate mofetil and azathioprine. Two patients (6.7%) received biological treatment: Etanercept and Infliximab. A good evolution was noted in 63.3% of the cases and 26.7% of the patients were in remission.

Conclusions: This study results are similar to other worldwide studies 'findings. Delay in the diagnosis and the lack of specific examinations make the disease underdiagnosed.

PV835 / #1145

HIGH ARTERIAL TENSION- A RARE CAUSE

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Case Description: Takayasu's arteritis is a chronic and rare inflammation of large vessels characterized by segmental stenosis, occlusion, dilatation or aneurysmal formation. Prevalence and characteristics suggest a genetic pattern. A 22-year-old woman with a chronic multifocal osteomyelitis, under methotrexate, goes to the emergency department with odynophagia and dry cough with a week of evolution, accompanied by dyspnea. The initial evaluation shows a high tension profile, partial respiratory failure, renal dysfunction and a slight increase in inflammatory

parameters. The chest X-ray presents a bilateral diffuse interstitial infiltrate. Realized a bronchofibroscope that reveal edema and hyperemia of the bronchial mucosa bilaterally. During hospitalization, asymmetry was observed in the measurement of arterial pressure, greater than 10 mmHg.

Clinical Hypothesis: Performed a Doppler Echocardiogram of the renal arteries with significant thickening of the proximal abdominal aorta wall with extension to the emergence of the main renal arteries with pre-occlusive critical stenosis bilaterally.

Diagnostic Pathways: Later, underwent angio-MRI that revealed alterations suggestive of Takayasu's arteritis, with a significant renal and moderate involvement in the territory of the superior mesenteric artery.

Conclusion and Discussion: Vascular surgery, considered that there was no indication for treatment in the acute phase. During hospitalization, maintained methotrexate adjusted to renal function, started steroid and antihypertensive therapy with a slight improvement in tension control. Resolution of pulmonary infiltrates and progressive improvement of renal function occurred. Given the systemic complications of this disease, its early diagnosis is essential. Imaging and the multidisciplinary in the approach of this pathology seem to be determining factors for the improvement of the prognosis of these patients.

PV836 / #1172

BURKHOLDERIA CEPACIA CAUSING NECROTIZING PNEUMONIA IN AN IMMUNOCOMPETENT PATIENT

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Case Description: A 84-years-old woman without previous medical history presented to emergency service with fever, cough and dyspnoea. Blood results showed raised white blood cells and C-reactive protein. Chest plain film showed extensive pulmonary infiltrates in the right lung. SARs-COV2 test was negative. Patient was transferred to the ward and began empiric antibiotic therapy.

Clinical Hypothesis: On day 3, despite the empiric antibiotic therapy the patient developed respiratory deterioration and further evaluation with chest CT showed complex areas of consolidation mainly affecting the right lower lobe with several small cavitated areas, suspicious for necrotic changes and small pulmonary microabscess. Possible differential diagnosis raised from the clinical setting and the uncommon radiological pattern was for: infective/necrotizing pneumonia (tuberculosis/melioidosis) with differential diagnosis for advanced pulmonary neoplastic disease.

Diagnostic Pathways: Sputum culture analysis showed growth of *Burkholderia cepacia*. Sputum smears were negative and bronchial wash excluded neoplastic cells. Melioidosis type variant due to

B. cepacia infection was diagnosed and patient started long-term antibiotic therapy showing slight clinical improvement.

Conclusion and Discussion: Melioidosis is a rare disease in European countries and commonly described in southeast Asia associated with *B. pseudomallei*. Hereby we present a rare case of melioidosis type variant caused by a similar genus of Burkholderia, the *B. cepacia* causing severe necrotizing pneumonia with pulmonary microabscess in an immunocompetent patient. With the current report we aim to review the manifestations of melioidosis and most common differential diagnosis in order to promote awareness of the disease and the pulmonary radiological manifestations that can help obtaining the appropriate diagnosis.

PV837 / #1240

ARTERIAL TORTUOSITY SYNDROME IN A FAMILY WITH AN UNREPORTED SLC2A10 NONSENSE MUTATION

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Background and Aims: Arterial tortuosity syndrome is a rare autosomal recessive connective tissue disorder caused by mutations in the solute carrier family 2 member 10 (SLC2A10) gene encoding facilitative glucose transporter 10 (GLUT10), and characterized by tortuosity and elongation of the large and medium-sized arteries and propensity for aneurysm formation and vascular dissections. We report the clinical findings and molecular characterization of a newly identified Spanish family with arterial tortuosity syndrome, highlighting a pathogenic SLC2A10 mutation previously unreported in medical literature.

Methods: We describe and analyze the clinical findings and molecular characterization of a newly identified Spanish family with arterial tortuosity syndrome.

Results: We present 2 male siblings with arterial tortuosity syndrome diagnosed in adulthood. Siblings born from nonconsanguineous parents, and phenotypic presentation led to misdiagnosis in both cases. Clinical picture consisted in marfanoid habitus, severe keratoconus, and tortuosity of the aorta and midsized arteries. SLC2A10 sequencing analysis disclosed homozygosity for the mutation p.Tyr216*. On 8 March 2019, this variant was reported in ClinVar database to be causative of ATS with pathogenic clinical significance. Nonetheless, this is the first documented report in the literature about this pathogenic variant, with the particularity that the affected patients have been identified in adulthood, and only few adult patients with ATS have been previously published.

Conclusions: We report the clinical findings and molecular characterization of a newly identified Spanish family with arterial tortuosity syndrome, highlighting a pathogenic SLC2A10 mutation previously unreported in medical literature, and contributing to better understanding the natural history of this genetic disorder.

PV838 / #1253

MEETING OF THE RARE; A TUBERCULOSIS CASE BOTH WITH SCROFULADERMA AND POTT'S DISEASE

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Background and Aims: Extrapulmonary Tuberculosis (EPTB) can occur in organs such as the liver, spleen, bone marrow, and brain with the progression of primary infection or the reactivation of a latent focus caused by the lymphohematogenous spread.

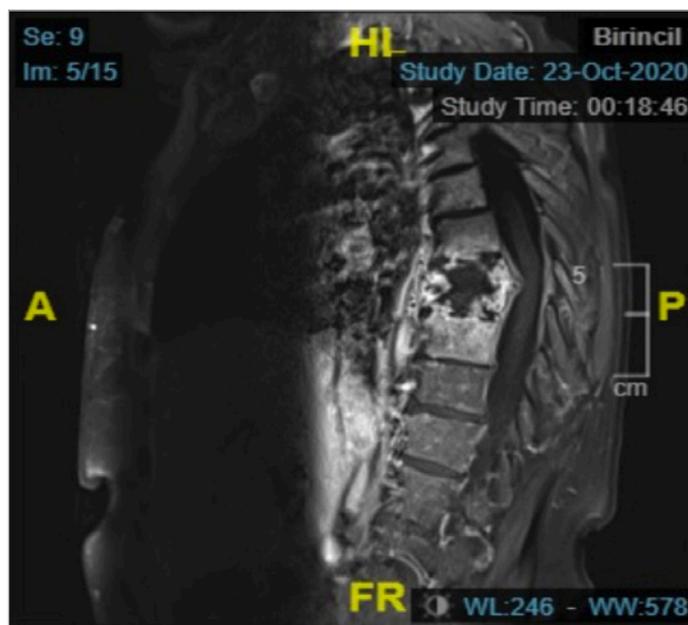
Methods: Here we report a tuberculosis case with both scrofuladerma and POTT's disease.

Results: An 82-year-old female patient was admitted to the emergency department with complaints of abdominal and back pain. She had a fever, weight loss, and night sweats for three months. On physical examination, a purulent leaking wound fistulized to the skin, and lymphadenopathy was detected on the right supraclavicular area (Figure #1253-1). A computed tomography (CT) of the neck revealed an increased reticular density in the right supraclavicular area suggesting either inflammation or infection. Thorax CT revealed right paratracheal lymphadenopathy and metastatic destruction of the T8 vertebra. Due to B-symptoms and metastatic lesions in the thoracic area, a quantiferon test was done which yielded a positive result while consecutive acid-fast-staining tests of the sputum were negative. A biopsy was taken from the cutaneous lesion on the right supraclavicular area and the pathologic result was consistent with granulomatous dermatitis; centrally assembled histiocytes, peripheral lymphocytes, multiple giant cells, while some of them are Langerhans cells, are of a tuberculoid type and necrosis was not detected. A thoracic magnetic resonance imaging detected tuberculous spondylodiscitis (Pott's Disease) on the thoracic T8 level (Figure #1253-2).

Conclusions: The patient has started on a four-drug regimen with isoniazid, rifampin, pyrazinamide, and ethambutol. Surgical



#1253 Figure 1: Purulent leaking wound fistulized to the right supraclavicular area.



#1253 Figure 2: Active spondylodiscitis, accompanying paravertebral abscesses and inflammation, possibly accompanied by ankylosis in the T8-9 disc space, including the T7-9 vertebral corpus, causing destructive height loss in the T8 vertebra, compatible with tuberculous spondylodiscitis.

intervention was planned for spondylodiscitis. Although lungs are the primary sites for Tuberculosis disease, EPTB should keep in mind with atypical presentations.

PV839 / #1258

A RARE CAUSE OF HYPOKALEMIA; GITELMAN SYNDROME

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Background and Aims: Gitelman syndrome (GS) is a rare autosomal recessive renal tubule disease characterized by hypokalaemia, metabolic alkalosis, hypomagnesemia, hypocalciuria, and normal blood pressure.

Methods: Approach to hypokalemia seems a challenge for physicians and GS should keep in mind in patients with hypokalemia.

Results: A 34-year-old woman was admitted to the emergency department with weakness, nausea, abdominal pain, muscle cramps, and syncope. Her vital signs and physical examination were normal. Laboratory tests revealed serum potassium; 2.51 (3.5–5.1 mEq/l), magnesium 1.31 (1.8–2.6 mEq/l) with normal renal function. As the patient was symptomatic, 80 mEq potassium chloride was administered intravenously and her symptoms gradually improved. The patient was referred to the internal medicine department for an investigation of hypokalaemia. She had no history of drug use other than iodine, folic acid, iron, and levothyroxine sodium replacement. There was no family history of renal disease, and renal ultrasound and function tests were

normal. The results of a 24-hour urine test revealed calcium excretion 11.61 (100–250 mg/day), magnesium excretion 96.66 (73–122 mg/day), potassium excretion 40.5 (25–125 mEq/day), sodium excretion 288 mEq/day and chloride excretion 299.7 mEq/day. Blood gas analysis showed compensated metabolic alkalosis (pH-7.439, HCO₃-28.1 mol/l, pCO₂-44.5 mmHg). The serum renin level was 45.3 pg/ml and the aldosterone level was 165 pg/ml, which were mildly hyperactivated. The patient was diagnosed with Gitelman syndrome and was treated with supplements of potassium and magnesium. Genetic testing is planned.

Conclusions: GS is an autosomal-recessive disorder is caused by a mutation in the SLC12A3 gene on chromosome 16 which results in a loss of function in the NaCl cotransporter in the distal tubules.

PV840 / #1353

VASCULITIS TRIGGERED BY INSECT BITE

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Case Description 70-year-old woman came to emergency department: palpable purpura. Started 4 days before, with appearance of erythematous papular lesion in the calf of the right lower limb (LL), that posteriorly dispersed through both LL. Symmetrical, additive wrists arthralgias, with mechanical character, 1-month evolution, with further metatarsal and proximal phalanges involvement. Reported an insect bite on her right leg. Denied other symptoms, beginning of new medicine, consumption of herbal remedies, risky sexual behaviors or drug addictions. Clinical history: high blood pressure, autoimmune thyroiditis, folic acid deficit anemia. Was taking levothyroxine, lisinopril+hydrochlorothiazide, diosmin, naproxen+esomeprazole. Objectively: non-blanchable, painless, non-pruritic erythematous papular lesions of the LL, some with central vesicle/desquamation, more prominent on the right side. Wrists/phalangeal proximal joints swelling. Laboratory findings: Normocytic Normochromic Anemia, acute kidney injury, CRP 9.45 mg/dL. Chest x-ray, abdominal ultrasound without anomalies.

Clinical Hypothesis: Paraneoplastic purpura Purpura Henoch Schonlein Leukocytoclastic vasculitis triggered by insect bite ANCA negative associated small vessels vasculitis.

Diagnostic Pathways: During hospitalization, clear improvement of lesions, which disappeared afterwards. Arthralgia improvement with Naproxen. Laboratory findings: Anemia, CRP decreasing, improvement of renal function, erythrocyte sedimentation rate 80-100 mm/h, immunofixation without monoclonal protein; antibodies, complement, cryoglobulin, imunoglobulin unaltered; negative cultures; urinalysis, mammography, transvaginal ultrasound, upper digestive endoscopy, colonoscopy, CT scan thoraco-abdominopelvic unaltered. Skin biopsy - leukocytoclastic vasculitis of the superficial vessels.

Conclusion and Discussion: Leukocytoclastic vasculitis triggered

by insect bite. Vasculitides are rare diseases. This highlights the importance of a detailed history/physical exam. It is important for clinicians to be aware of the vast variety of triggers that can lead to small vessel vasculitis.

PV841 / #1396

PRIMARY SYSTEMIC AMYLOIDOSIS WITH SEVERE CARDIAC AND RENAL INVOLVEMENT: A CASE REPORT

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Case Description: A 64-year-old male patient was admitted due to progressive worsening dyspnea with exertion, weakness, fatigue and significant weight loss over the past 4 months. He had history of pericardiectomy for acute pericarditis. Physical examination revealed paleness of skin, peripheral edema, orthopnea, decreased respiratory whispering with bilateral crackles, splenomegaly and hepatomegaly with positive abdominojugular reflux and cervical and inguinal lymphadenopathy. Typical clinical signs were macroglossia, waxy papules, shoulder pad sign and carpal tunnel syndrome. Preliminary laboratory examination revealed pancytopenia, elevated erythrocyte sedimentation rate, hypergammaglobulinemia and renal failure with significant proteinuria.

Clinical Hypothesis: The typical clinical signs in combination with cardiac and renal involvement and the presence of organomegaly raised the suspicion of systemic amyloidosis.

Diagnostic Pathways: CT imaging confirmed hepatosplenomegaly and abdominal lymphadenopathy. Echocardiography showed a large, flexible mass on the pulmonary valve, severe concentric left ventricular hypertrophy with preserved systolic function and moderate pericardial effusion without compression effects. Serum protein electrophoresis detected κ-light chain monoclonal gammopathy and Bence-Jones protein in urine. Myelogram revealed the presence of 10-12% plasmocytes. However, there was no evidence of hematologic malignancy from bone marrow biopsy. A biopsy of subcutaneous fatty tissue of the abdominal wall established focal amyloid deposition with typical apple-green birefringence under polarized light microscopy after Congo red staining. The patient was referred to the hematology department with a diagnosis of AL amyloidosis.

Conclusion and Discussion: Clinical manifestations of primary systemic amyloidosis are diverse and non-specific. Hence opposing a diagnostic challenge, the approach should be multidisciplinary. A definitive diagnosis can only made following histological study with Congo red stain under polarized light.

PV842 / #1411

FINDING THE ETIOLOGY OF COLD AGGLUTININS IN A PATIENT WITH HAEMOLYTIC ANEMIA

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Case Description: An 83-year-old woman with asthenia, night sweats and chills, was admitted with macrocytic anaemia plus a direct coombs test identified a cold agglutinin (CA), reacting between 4°C and 20°C. She was being treated with Methotrexate, Sulfasalazine and Prednisolone due to an overlap of multicentric reticulohistiocytosis and rheumatoid arthritis (RA). She began corticotherapy and twice a week blood transfusions. When reticulocyte count started dropping, she started rituximab. Due to treatment failure, she proceeded to cyclophosphamide, but unfortunately died after one week.

Clinical Hypothesis: In this immunocompromised patient with an autoimmune condition, all most common causes of CA, from infectious, to autoimmune and lymphoproliferative diseases were plausible and had to be excluded.

Diagnostic Pathways: A full clinical rheumatological evaluation was performed. No articular inflammation was found and values of rheumatoid factor or anti-CCP were stable. Serologic testing, covering *Mycoplasma pneumonia*, Cytomegalovirus, Herpes simplex virus 1 e 2, Epstein-barr virus, Parvovirus, Hepatitis B and C and HIV 1 and 2, was negative. Despite the presence of a monoclonal gamma spike in serum electrophoresis, immunofixation and medulogram were normal. All findings in both CT and FDG-18 PET scans were irrelevant.

Conclusions: Haemolytic anaemia due to CA is a rare entity, explaining the lack of knowledge about its treatment. However, identifying it as secondary to an underlying disease may impact treatment and prognosis. In this case, excluding all possible causes for CA, the question remains if it was related to the rheumatoid arthritis, despite the absence of exacerbation, or if it was a primary CA disease.

PV843 / #1452

STROKE AS THE PRESENTING MANIFESTATION OF CARDIAC AMYLOIDOSIS

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Case Description: An 80-year-old man presented to the emergency department with a newly onset motor deficit noticed upon waking. He had a past medical history of type-2 diabetes mellitus and hyperlipidemia. Physical examination revealed moderate dysarthria, left central facial palsy and left mild hemiparesis (NIHSS=5). Brain computed tomography (CT) scan showed a right insular hypodense area, and the CT angiography identified a distal occlusion in the right middle cerebral artery.

Clinical Hypothesis: The ischemic stroke etiology was further investigated.

Diagnostic Pathways: He started dual antiplatelet and high-intensity statin therapy with clinical improvement. HIV and VDRL were negative, vitamin B12 and folate levels were normal, and the remaining blood analysis was unremarkable. The electrocardiography identified sinus arrhythmia, first degree atrioventricular block and left anterior fascicular block, with no other clinically relevant arrhythmic event recorded during 48h monitoring. Transthoracic echocardiogram showed a left ventricle ejection fraction of 45% with myocardial deformation in an "apical sparing" pattern and elevated filling pressures, suggestive of an infiltrative cardiomyopathy. Cardiac magnetic resonance and cardiac scintigraphy later confirmed the diagnosis of cardiac amyloidosis and the patient is waiting for genetic testing for transthyretin mutations.

Conclusions: Ischemic stroke resulting from cerebral embolization due to amyloid cardiopathy is rare. Cardiac amyloidosis presenting with ischemic stroke is also unusual. Amyloid fiber infiltration of the myocardium may lead to impairment of its function and result in subsequent atrial thrombus and thromboembolism, even with normal sinus rhythm. Cardiac amyloidosis awareness is important, especially in the Portuguese population, known for a high prevalence of transthyretin familial amyloid polyneuropathy.

PV844 / #1483

PIPERACILLIN INDUCED EVANS SYNDROME

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Case Description: An 85-years old man admitted with septic shock by *Chlamydophila pneumoniae* started treatment with piperacillin-tazobactam. On the third day, he started developing fast evolving thrombocytopenia, which sustained after interruption of prophylactic enoxaparin. Also, he presented normocytic anaemia, hypergammaglobulinemia and increasing LDH and bilirubin levels. Despite clinical improvement, these changes remained, and he developed macrocytosis.

Clinical Hypothesis: Initial hypotheses though that thrombocytopenia was associated with sepsis or heparin treatment. After the development of macrocytosis, vitamin deficits or myelodysplastic syndrome became a more likely diagnosis, as well as an autoimmune induced anaemia and thrombocytopenia.

Diagnostic Pathways: Platelet factor 4 antibodies weren't found, and the patient showed neither vitamin B12 or folic acid deficits. Myelogram was performed showing no relevant findings. An autoimmune condition became more plausible with hypergammaglobulinemia in immunoelectrophoresis, plus absence of monoclonal component in immunofixation. When macrocytic anaemia with decreased complement protein 3 and haptoglobin appeared, a positive direct Coombs Test monospecific for IgG3 raised the suspicion of an Evans syndrome, confirmed by the presence of IgG antiplatelet antibodies. Identification of piperacillin specific autoantibodies is currently ongoing. Three days after the discontinuation of antibiotherapy, platelet count increased. Due to sustained low haemoglobin, he started corticotherapy and had a rapid recovery.

Conclusions and Discussion: Autoimmune thrombocytopenia occurring hours to few days after exposure to piperacillin-tazobactam and autoimmune haemolytic anaemia due to penicillin derivatives, specifically piperacillin, have been reported. Fulfilling the criteria for both, with high correlation with the timings of antibiotic treatment, this patient was diagnosed with a rare Evans Syndrome secondary to piperacillin.

PV845 / #1484

APICAL HYPERTROPHIC CARDIOMYOPATHY – CASE REPORT

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Case Description: A 49-year-old man with hypertension, presented with typical chest pain and an electrocardiogram (ECG) with criteria for left ventricular hypertrophy and inverted T wave anterolateral wall. Cineangiocoronariography without obstructive lesion and transthoracic echocardiogram (ECHO) with significant left ventricular hypertrophy, more pronounced in the apical region, suggestive of apical hypertrophic cardiomyopathy. The treatment instituted was the maintenance of antihypertensive medications that had previously been used (angiotensin receptor blocker and thiazide diuretic) and the introduction of beta-blockers to control heart rate.

Clinical Hypothesis: Apical hypertrophic cardiomyopathy

Diagnostic Pathways: Association of ECG and ECHO contribute to the diagnostic hypothesis.

Conclusions: Hypertrophic cardiomyopathy (HCM) is characterized by septal enlargement ($\geq 15\text{mm}$), with a variation located at the apex (Yamaguchi syndrome). It presents with an electrocardiographic pattern of giant T waves in precordial leads. The estimated prevalence in the general population is between 1-2%, while in the Japanese it is found in 25% of HCM patients. Despite the low prevalence and better evolution compared to hypertrophic asymmetric, it is important to think about the diagnosis when observing typical electrocardiographic changes. This will contribute to instituting appropriate treatment, controlling symptoms, decreasing the risk of ventricular tachycardia and sudden death.

PV846 / #1532

THE REMITTING SERONEGATIVE SYMMETRICAL SYNOVITIS WITH PITTING EDEMA SYNDROME: REVIEW OF TEN YEARS OF A RARE DISEASE AT A REFERENCE HOSPITAL

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Background and Aims: The Remitting Seronegative Symmetrical Synovitis with Pitting Edema Syndrome (RS3PE) is a rare rheumatological disease. Although considered a benign process, association with neoplasms has been described. This study aims to describe its main features.

Methods: An observational retrospective study was performed to assess demographic and clinical characteristics of patients diagnosed from RS3PE at a reference hospital, from 2010 to 2020.

Results: Twenty-six patients were included, with a mean age of 82.5 years old. (IC95% 80.17-84.83; range 66 to 93), and a 50% proportion of males. Only 19.23% were from rural areas. All patients presented bilateral hand edema although some associated feet edema (38.46%) or morning stiffness (69.23%). Blood tests demonstrated anemia in 42.31% of patients. Inflammatory

markers were elevated, such as C-Reactive Protein (30.03 mg/dL, IC95% 18.64-41.42), erythrocyte-sedimentation rate (34.77 mm/hour, IC95% 25.11-44.43) and fibrinogen (534.56 mg/dL, IC95% 479.58-589.53). Only a few patients presented any autoimmune serological marker such as antinuclear antibodies (19.05%) or rheumatoid factor (9.09%). Malignancy screening was performed at diagnosis in only 30.77% of patients (all negative), and during follow-up only two tumors were detected (mean accumulated follow-up: 41.54 months, IC95% 27.53-55.55; range 1 to 122). All but one patient received low-dose corticosteroids, with rapid response in all cases. Three patients received treatment with methotrexate (2) or leflunomide (1).

Conclusions: RS3PE must be contemplated in elderly patients presenting with bilateral hand pitting edema and articular symptoms. No specific biomarkers have been described, but inflammatory reaction is often found in the absence of rheumatoid arthritis biomarkers. Rapid response to corticosteroids is prevalent.

PV847 / #1536

NEW MUTATION OF THE PROTOPORPHYRINOGEN OXIDASE (PPOX) GENE IN BRAZILIAN PATIENT WITH VARIEGATE PORPHYRIA

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Case Description: Female, 62 years old, presented to emergency department with abdominal pain, vomiting, abnormal urinary color (Figure #1536) and muscle weakness. In the following 30 days she developed confusion, decreased consciousness, tetraplegia and coma. She had been started on valproate for depression months before.

Clinical Hypothesis: Porphyria in an elderly woman.

Diagnostic Pathways: On initial exams we found a normal complete blood cell count, no transaminase, amylase or bilirubin elevations and no significant electrolytes alteration except for discrete hypokalemia (3.1; NR 3.6 - 5.2) and hyponatremia (131; NR 135-145). Abdominal CT and Brain MRI revealed no alterations. On electroneuromyography she displayed severe sensory-motor neuropathy. An elevation of urinary porphobilinogen in a spot (random) urine sample was detected prompting genetic sequencing which revealed Variant c.503 G > A in exon 6 of the PPOX gene, in heterozygosis. This variant is a missense mutation, not found in population databases which replaces an Arginine with a Histidine at codon 168 of the translated protein. Its current classification as pathogenic, confirming variegate porphyria (VP).



#1536 Figure

She was treated with panhematin, but died after 4 months of infectious complications.

Conclusion and Discussion: Porphyrias are a group of metabolic diseases that arise from deficiencies in the heme biosynthetic pathway. Although the majority VP patients present symptoms in young age, we should raise suspicion for diagnosis even in elderly patients with compatible symptoms. Genetic sequencing is an important tool in the discovery of new genetic mutations.

PV849 / #1581

RARE CAUSE OF PROTEIN LOSING ENTEROPATHY

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Case Description: In 2011, a 28-year-old man is referred to a gastroenterologist with the following symptoms he has suffered since childhood - lower limb oedema, recurrent erysipelas, cramps and tingling in the extremities, flatulence, periodic diarrhoea and fatigue. The patient's comorbidities were bronchial asthma, chronic rhinosinusitis and gastroesophageal reflux disease (GERD).

Methods: Physical examination revealed warts, lower limb oedema and abdominal distention. Laboratory test findings showed hypoalbuminemia, selective immunoglobulin G (IgG) deficiency, lymphopenia and hypocalcemia. Protein losing enteropathy of unknown origin was diagnosed. A capsule endoscopy was ordered in order to determine the possible cause.

Results: The capsule endoscopy revealed swollen intestinal mucosa with balloon-like villi – a typical sign for Waldmann’s disease. In 2012, after council with gastroenterologists from the Netherlands, the patient is diagnosed with Waldmann’s disease at the age of 29.

Conclusions: Waldmann’s disease or primary intestinal lymphangiectasia (PIL) is a rare cause of protein losing enteropathy. Only up to 500 cases have been reported worldwide (Vignes, 2019). As Waldmann’s disease starts in childhood, our aim should be to secure diagnosis in childhood, thus avoiding unexplained long-standing symptoms. However, there is a lack of guidelines for its workup and diagnosis, and a lack of scientific evidence for the treatment of PIL with medication. This creates difficulties in diagnosis and treatment. Capsule endoscopy may prove to be a useful imaging method for suspected lymphangiectasia in the small intestine.

PV850 / #1600

MIND THE SPOTS – A CASE OF PEUTZ-JEHERS SYNDROME

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Case Description: A 25-year-old previously healthy female presented with anorexia, weight loss, fatigue and right-upper quadrant abdominal pain worsening over a month. She was a non-smoker and had no relevant family history. Her physical examination was remarkable for moderate hepatomegaly, mucocutaneous pallor and hyperpigmented macules on the nostrils, lower lip and jugal mucosa. Laboratory analysis retrieved a ferropenic anemia, cholestasis and raised inflammatory markers. Abdominal imaging showed a heterogeneous enlarged liver with multiple nodules and a gastric voluminous bleeding mass and multiple polyps both on the stomach and colon were found in endoscopic studies.

Clinical Hypothesis: At this point we were concerned about a genetic polyposis syndrome that degenerated into a gastrointestinal malignancy.

Diagnostic Pathways: Histological analysis confirmed a gastric poorly differentiated adenocarcinoma and hamartomatous polyps with smooth-muscle proliferation and distorted architecture. She was treated with palliative chemotherapy but disease progressed quickly with death in a few months.

Conclusion and Discussion: The presence of typical hamartomatous polyps and mucosal pigmentation supported the diagnosis of Peutz-Jehers syndrome (PJS). PJS is a rare autosomal dominant condition characterized by multiple gastrointestinal hamartomatous polyps, pigmented mucocutaneous lesions and increased risk of malignancy in several organs^[1]. Although our patient had no known family history, the presence of melanic mucosal lesions should have raised the suspicion of the diagnosis sooner. Adequate screening and follow-up are essential to prevent known complications.

^[1]Beggs AD et al. Peutz-Jehers syndrome: a systematic review and recommendations for management. *Gut*. 2010;59(7):975–86.

PV851 / #1636

FEVER OF UNKNOWN ORIGIN AS THE FIRST AND ONLY MANIFESTATION OF MULTIPLE MYELOMA: A CASE REPORT

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Background and Aims: Multiple myeloma (MM) is a hematological malignancy which is characterized by the neoplastic proliferation of plasma cells within the bone marrow compartment. Fever is a common manifestation in patients with MM ascribed to immunoparesis-related infections. Fever of unknown origin (FUO) as the first manifestation is a rarely seen feature of MM. Cases of MM presenting with FUO have been associated with at least one abnormality of CRAB (hypercalcaemia, renal insufficiency, anemia, bone lesions) or attributed to a concurrent infection

Methods: A 67-year-old woman was referred to a tertiary care hospital due to FUO, and a temperature up to 38.5° C for the last 25 days.

Results: Extensive work-up was not indicative of the source of fever; infection was excluded on clinical, laboratory and imaging lack of evidence. Bone marrow biopsy was positive for marrow proliferation consistent with MM. Fever was treated with naproxen and patient was started with Bortezomib and dexamethasone.

Conclusions: MM may be considered in patients presenting with FUO. A hematological consultation should be part of a meticulous inquest of the underlying cause.

PV852 / #1667

SWEET SYNDROME: A CASE REPORT

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Case Description: A 67 year old nurse presented to the Emergency Department with a four day history of headache, severe neck pain and tender, blister-like lesions on the dorsal aspect of her hands. These symptoms were preceded by a brief diarrhoeal illness one week prior. Her past medical history is significant for multiple myeloma and type 2 diabetes. Lab results showed significantly raised inflammatory markers (CRP 325 mg/L and WCC 16.3 x10⁹/L). CT head was unremarkable and subsequent MRI spine excluded discitis. A lumbar puncture was attempted without success. Broad spectrum antibiotics and Aciclovir were initiated for suspected HSV meningitis. Despite the above treatment, an increasing number and severity of skin lesions were noted over the next few days with a rise in CRP to 342 mg/L.

Clinical Hypothesis: The rapid onset of skin lesions with a history

of preceding diarrhoeal illness and a background of underlying myeloma raised the possibility of a non-infectious cause such as Sweet Syndrome.

Diagnostic Pathways: After dermatology consultation, a punch biopsy of the upper arm lesion was taken which demonstrated neutrophilic dermatosis confirming the diagnosis of Sweet Syndrome. A whole body CT scan and lab tests did not identify any underlying malignancy or relapse of multiple myeloma. The patient was commenced on high dose steroids to good effect and is recovering.

Conclusion and Discussion: Acute neutrophilic dermatosis (Sweet Syndrome) is an uncommon skin condition causing febrile illness. This case demonstrates that Sweet Syndrome can be a difficult diagnosis and should be considered in the setting of atypical presentations and rare extracutaneous manifestations such as meningitis. .

PV853 / #1713

MIKULICZ SYNDROME IN A DEPARTMENT OF INTERNAL MEDICINE

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Background and Aims: Mikulicz syndrome (MS) is an enlargement of the salivary glands (parotid and submandibular) and the tear glands. It is observed in many diseases: Hodgkin's disease, sarcoidosis, leukemia, Sjögren's syndrome (SS). We report 3 cases.

Methods: Retrospective study of Mikulicz syndrome cases in a department of internal medicine.

Results: They are 3 women. Mikulicz syndrome was the mode of revealing a primitive SS in all patients. A cervical ultrasound showed isolated parotid hypertrophy in all cases. A parotid Magnetic Resonance Imaging (MRI) showed bilateral parotidomegaly with multi-cystic dystrophy of the 2 globes producing the salt-and-pepper appearance. The parotiditis was bilateral in 2 cases and unilateral in 1 case. It was painless in all cases. A dry syndrome was observed in all women. An accessory salivary gland biopsy (ASGB) revealed focal lymphocytic sialadenitis stage 3 in the Chisholm and Masson histological scoring compatible with an SS. There was no pathnomonic epitheloid and giganto-cellular granuloma of sarcoidosis. Shirmer's test was in favor of xerophthalmia in all cases. Anti-nuclear antibodies were positive in all patients, anti-SSA in 2 cases. Granulomatous hepatitis was present in one woman requiring corticosteroid therapy. Treatment with bromhexine and artificial tears was common to all patients. Two women were receiving synthetic antimalarial drugs. The evolution was marked by the recurrence of parotiditis in 2 cases.

Conclusions: Mikulicz syndrome should be checked for neoplasia, dysimmune disease including sarcoidosis and SS. Any parotid swelling during a primitive SS requires regular follow-up, especially if it persists, in order to detect an NHL in time.

PV854 / #1734

UNCOMMON SKIN RASH ON PUERPERAL WOMAN

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Case Description: This case reports a 28 years old puerperal woman that developed a cutaneous exanthema 2 months after caesarean delivery. The patient developed muscle pain, odynophagia, and cough, followed by fever and a maculopapular exanthema starting on the lower limbs and progressing throughout the entire body. During the caesarean delivery, she received ceftriaxone intravenously. She also had a history of oral intake of diclofenac and methyl dopa. On physical exam Nikolski sign was negative, and no oropharyngeal lesions were present. The patient scored 6 on RegiSCAR, asserting a definitive diagnosis of Dress Syndrome. A toxic hepatitis also developed, only managed by intravenous corticotherapy. After 2 weeks of treatment and eviction of the probable drugs, the patient was discharged with signs of clinical and laboratorial improvement.

Clinical Hypothesis: The more probable differential diagnosis were Dress Syndrome, Acute generalised exanthematous pustulosis (AGEP), Steven-Johnson, Autoimmune disease flare and Viral hepatitis.

Diagnostic Pathways: The temporal relation between drug ingestions and symptoms, physical findings weren't suggestive of AGEP or Steven-Johnson Syndrome. Blood analysis was negative for A.N.A. and sedimentation rate was low. Serological markers were negative for viral Hepatitis. RegiSCAR score confirmed the diagnosis of Dress Syndrome.

Discussion and Conclusion: Besides not being possible to confirm the responsible causative agent to the exanthematous reaction in this case, the more probable agents identified were ceftriaxone and diclofenac. This case should bring attention to late pharmacological reactions, particularly to Dress Syndrome, in which the diagnosis can be challenging due to its late presentation.

PV855 / #1739

SINONASAL MASS AND RESPIRATORY FAILURE AS AN INITIAL PRESENTATION SYMPTOM OF IGG4-RELATED DISEASE.

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Background and Aims: Immunoglobulin G4 (IgG4) related sclerosing disease (rSD) is a new disease entity. It is considered a systemic disease with involvement of multiple organ systems. IgG4-rSD that affects the sinonasal region in combination with

pulmonary lesions resulting in respiratory failure is rare. We describe a patient with an unusual presentation with sinonasal and pulmonary manifestation of this unique disease

Methods: We report a case report of a 42-year-old man who presented with left sinusitis, dyspnea and chest pain

Results: Radiographic workup with computed tomography and PET imaging demonstrated a left sinonasal mass and extensive pleural and intrapulmonary abnormalities. Endoscopy of the sinus demonstrated a necrotic lesion with surrounding mucosal inflammation. Pathology after endoscopic biopsy demonstrated inflamed mucosa with dense lymphoplasmacytic infiltrate with high concentration of IgG4 plasmacells. Plasma IgG4 was elevated in combination with high inflammatory parameters. There were no signs of malignancy and broncho alveolar lavage showed no signs of infections. The patient was treated with invasive positive pressure ventilation therapy together with systemic corticosteroids with good clinical response

Conclusions: Sinonasal IgG4-rSD in combination with pulmonary manifestations resulting in respiratory failure is a rare life-threatening disease. This was an unique case. Radiological and immunohistologic workup is essential for diagnosis. It is important to consider and recognize this disease from other sinonasal and pulmonary related diseases. Treatment includes systemic corticosteroids in combination with ventilation therapy is essential.

PV856 / #1740

HORTON'S DISEASE: A DESCRIPTIVE STUDY

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Background and Aims: Horton's disease (HD) is a segmental, plurifocal giant cell inflammatory panarteritis of the elderly, predominantly in large and medium vessels. It remains until today a severe pathology due to ocular, neurological and vascular complications. The aim of this work is to determine the epidemiological, clinical and evolutionary characteristics of patients with HD.

Methods: It is a retrospective descriptive study of 19 files of subjects with Horton's disease, hospitalized in the internal medicine department.

Results: The subjects were 14 (74%) women and 5 (26%) men with an average age of 70 years. Seventeen patients (89.5%) had general signs. Headache was present in 79% of cases. Two patients had hyperesthesia of the scalp. Only one patient had jaw claudication and a scalp necrosis lesion. All patients had temporal artery abnormalities. Ophthalmologic manifestations were present in 71% of cases with bilateral blindness in only one patient. A mood disorder was noted in only one case. Joint damage was observed in 76% of cases. Coronary damage was objectified in one case. Corticosteroid therapy was prescribed in all our patients. The favorable clinical and biological evolution without recurrence was observed in 47% of cases.

Conclusions: Horton's disease should be discussed with any elderly person complaining of headaches with altered general condition. Its clinical picture is polymorphic. The most dreadful complication is the ocular damage to the type of irreversible blindness.

PV857 / #1742

HORTON'S DISEASE: THERAPEUTIC MODALITY

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Background and Aims: Horton's disease is a segmental, plurifocal, giant cell inflammatory panarteritis, predominant in large and medium vessels, with a prognosis that depends on how quickly it is managed. The objective of this work is to describe the therapeutic modalities during MH.

Methods: It is a retrospective descriptive study of 19 files of subjects with Horton's disease, hospitalized in the internal medicine department.

Results: The subjects were 14 women and 5 men with an average age of 70 years. Oral corticosteroid therapy was prescribed in all our patients, preceded by a bolus of Methylprednisolone in case of coronary (n=1) and ocular (n=2) disease. A dose of 1 mg/kg/day of prednisone was recommended for severe forms. A dose of 0.7 mg/kg/day was prescribed in 79% of cases. A dose of 0.5 mg/kg/day was prescribed in fragile subjects. The average duration of the attack treatment ranged from 4 to 8 weeks. Degression was initiated in all patients at a dose of 5 mg every 1-2 weeks until a maintenance dose of 5-10 mg/day. The average duration of total treatment was 8 years with a minimum of 5 months. Methotrexate was indicated in two of our patients for steroid resistance. Anti-aggregant treatment was prescribed in 2 patients with NOIA-type ophthalmologic disease.

Conclusions: Corticosteroids form the basis of treatment for Horton's disease and prednisone is the molecule of choice.

PV858 / #1747

DIGITAL ISCHEMIA IN A DEPARTMENT OF INTERNAL MEDICINE

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Background and Aims: Digital ischemia (DI) is a frequent reason for consultation in internal medicine. The etiologies are multiple, hence the need for an exhaustive etiological investigation for adequate management. It is a real medical emergency since some etiologies can be life-threatening. The aim of this work is to

determine the etiological, therapeutic and evolutionary profile of digital ischemia.

Methods: We conducted a descriptive retrospective study including 34 patients with digital ischemia who were hospitalized in the internal medicine department.

Results: The patients were 24 men and 10 women. The mean age was 48 years. The etiologies of digital ischemia were: systemic lupus erythematosus associated with phospholipid antibody syndrome in 2.9% of cases, paraneoplastic arterial disease (2.9% of cases), Buerger's disease (17.6% of cases), atheromatosis (20.6% of cases), cardiac embolism (14.7% of cases), small vessel vasculitis (2.9% of cases), shock (2.9% of cases), scleroderma (8.8% of cases) and CREST syndrome (2.9% of cases). The etiology remained undetermined in 20.6% of cases. Treatment was based on calcium channel blockers (88.2% of cases), platelet anti-aggregants (58.8% of cases), curative anticoagulation (26.5% of cases), ilomedine in 5.8% of cases. Surgical treatment was performed in 17.6% of cases. A recurrence of digital ischemia was noted in 11.8% of cases.

Conclusions: Digital ischemia can be a symptom of many pathologies whose lack of knowledge and late diagnosis can be life-threatening. ID must be managed early to prevent patients from suffering disabling functional sequelae.



AS17. RESPIRATORY DISEASES

PV859 / #116

ERYTHEMA NODOSUM REVEALING A METASTATIC LUNG CANCER

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Background and Aims: Erythema nodosum (EN) is an inflammatory condition of the subcutaneous fat. It is a common dermatological manifestation with many different aetiologies meaning that an appropriate clinical analysis should be performed. EN has been reported in patients with hematological malignancies (lymphomas) or solid tumors such as digestive cancer and carcinoid tumors. Lung cancer is the most common cause of paraneoplastic syndromes. We report a case of EN occurring as a paraneoplastic disease.

Methods: A 48-year-old Tunisian woman, non-smoker, with no medical history and no drug intake, presented with painful, erythematous, firm nodules, mainly localized on the anterior surface with ankles swelling evolving for one month. The patient didn't report any other associated symptoms like fatigue, malaise, weight loss, headache, or cough. There were no abnormalities on examination except for a moderate fever and EN. Laboratory tests revealed a biological inflammatory syndrome and an elevated serum lactate dehydrogenase at 350 UI/l (normal range: 140-271 UI/l). An extensive infectious research was negative. The immunological panel was also negative. Anti-streptolysin antibodies were undetectable. Chest radiography showed a focal nodular opacity in the right lung field. The scan revealed an irregular tissular mass in the right pulmonary lobe with multiple hilar, mediastinal, and abdominal lymphadenopathies, nodule in the right adrenal gland, an irregular condensation in the right iliac bone and multiple nodular cerebral expansive processes.

Results: Transbronchial lung biopsy revealed a primitive and moderately differentiated adenocarcinoma.

Conclusions: Paraneoplastic EN is rare. Nevertheless solid neoplasia should be also systematically explored in that case.

PV861 / #208

EVALUATION OF ASTHMA CONTROL AND QUALITY OF LIFE FOLLOWING 3 MONTHS OF TREATMENT WITH FDC BUDESONIDE/FORMOTEROL IN GREEK ASTHMATIC PATIENTS – SKIRON STUDY

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Background and Aims: According to Global Initiative for Asthma (GINA) asthma treatment aims at gaining and maintaining disease control and normal daily activity. Study objective was to evaluate the effectiveness of 3-month treatment with Fixed Dose Combination (FDC) of Budesonide/Formoterol delivered via Elpenhaler[®], in controlling asthma symptoms and affecting quality of life (QoL) of Greek asthmatic patients.

Methods: Observational, non-interventional, multicentre clinical study (NCT03055793). Data were collected at baseline (V₀), 1 (V₁) - and 3 (V₂) -month follow-up visits. The effectiveness of treatment, regarding asthma symptom control and QoL, was evaluated using validated Greek versions of Asthma Control Questionnaire (ACQ-6) and Mini Asthma Quality of Life Questionnaire (MiniAQLQ), respectively.

Results: In SKIRON study 1,174 asthmatic patients from 126 sites were enrolled with mean (±SD) age 50.79 (±15.88). Patients were inadequately controlled at baseline (V₀=2.19±0.97), while asthma symptoms were well-controlled at V₁ (1.00±0.73) and V₂ (0.55±0.56). Mean ACQ total score was decreased by 1.18 (V₁) and 1.64 (V₂) (p <0.0001 in both visits) with 55.4% of the patients having adequate asthma control at V₂. The percentage of patients with fully controlled asthma was increased from 0.6% (V₀) to 28% (V₂). Study treatment conferred clinically-significant improvement in QoL. The mean total score was 4.55 (V₀), 5.92 (V₁) and 6.37 (V₂) with an increase of 1.98 units (p <0.0001) after 3 months. Asthma control correlated strongly with the MiniAQLQ assessments (r >0.5, p <0.0001).

Conclusions: Three months of treatment with FDC Budesonide/

Formoterol, Elpenhaler® resulted in an incremental clinically-significant improvement both in asthma control and QoL of patients.

PV866 / #507

CRYPTOGENIC ORGANIZING PNEUMONIA: A CASE REPORT

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Background and Aims: Interstitial pulmonary diseases represent a diagnostic challenge for including a plethora of different diseases, all sharing the common feature of diffuse infiltrates, cough and dyspnoea. The idiopathic subgroup remains as one with an unclear cause^[1].

Methods: A 42 year old previously healthy woman was admitted to the emergency room for fever, myalgias and asthenia starting in the last 2 days. She denied dyspnea and cough. In the last 36 months she had 7 episodes of pneumonia. Besides having crackles on pulmonary auscultation, her physical exam was normal.

Results: Blood tests had microcytic hypochromic anemia, leukocytosis (13.4/uL) and elevated c-reactive protein (112 mg/L). Chest computerized tomography revealed peribronchic confluent infiltrates and aa fibrotic nodule (25x24 mm) in the inferior left lobe. Levofloxacin was initiated. Further blood work revealed a sedimentation rate of 80 mm/h e anti streptolysin of 226 UI/mL. Autoimmunity, infectious serology and sputum samples were negative. Broncofibroscopy had no relevant findings. The hypothesis of cryptogenic organizing pneumonia arose and prednisolone 1 mg/kg/day was initiated. Lung biopsy confirmed the diagnosis. The patient was asymptomatic with corticotherapy and showed imagiological improvement.

Conclusions: Cryptogenic organizing pneumonia is a rare form of idiopathic interstitial pneumonia with unknown prevalence. Patients typically have a history of frequent and consecutive pneumonias that were treated with different empiric antibiotic regimens yet relapsed. Clinical history, image and histology are vital for achieving the correct diagnosis and proceeding to treatment with corticotherapy^[2].

^[1]King TE. Cryptogenic organizing pneumonia. *Uptodate* 2020

^[2]Chandra D et al. Cryptogenic organizing pneumonia. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. 2020 Sep 18.

PV867 / #534

A PRESSURE CASCADE LEADING TO ACUTE HEPATITIS

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Background and Aims: Serious elevation of transaminases (>1000 U/L) reflects extensive hepatocellular injury. The most common etiologies include viral, toxic and ischemic hepatitis. Ischemic hepatitis may be due to hypoperfusion or passive venous congestion.

Methods: Case Report.

Results: 89 years old male with history of hypertension, coronary heart disease and alcohol consumption. Poor medication compliance for the past year. He presented to the emergency department with dyspnea, palpitations, right hypocondrial pain and vomiting. He was awake with normal awareness. BP122/86 mmHg; HR140/min; SpO291%; T36°C. Icteric sclerae. Auscultation with arrhythmic heart sounds and bilateral base rales. Painful palpation of the right upper quadrant of the abdomen. Arterial blood gas analysis revealed metabolic acidosis and elevated lactates. ECG revealed atrial flutter. On biochemical analysis we highlight elevated total bilirubin (34% direct), transaminases (ALT 1400 U/L; AST 1281 U/L). Amylase and lipase were normal. HBV and HCV serologies were negative. Echocardiogram revealed severely depressed left ventricle ejection fraction (LVEF) and significant right chamber dilation. Thoracic CT identified bilateral filling defects of both right and left pulmonary artery branches consistent with acute pulmonary embolism (PE). The patient experienced a satisfactory response to anticoagulation and other standard treatments, namely for heart failure with reduced ejection fraction.

Conclusions: This case highlights a cascade of events contributing to acute hepatitis: (1) an acute PE caused right ventricle pressure overload which in turn caused hepatic vascular congestion; (2) low cardiac output due to low LVEF may have caused hepatic arterial hypoperfusion. This patient's prognosis relies on left ventricle reverse remodeling and optimization of his lifestyle.

PV868 / #572

A ROLLING AUDIT OF THROMBOPROPHYLAXIS IN ACUTE MEDICAL INPATIENTS

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Background: Venous thromboembolism is a major cause of morbidity and mortality worldwide. It is the most common complication in hospitalised patients worldwide. The aim of this audit was to assess South Tipperary General Hospital's (STGH)

compliance with Venous Thromboembolism (VTE) prophylaxis according to the American College of Chest Physicians (ACCP) guidelines and to compare this compliance to similar audits performed in previous years.

Methods: This is a cross-sectional study. The study sample size was 100 patients, 95 patients were recruited and 94 patients were included in analysis. The data was then analysed to ascertain if there was any sub-group of patients where the prescribing rate was lower or inaccurate. These prescribing rates were compared to five similar audit results over the last 14 years.

Results: There has been a sustained increase in the rate of correct VTE prophylaxis prescribing over a 14 year period demonstrated in 5 successive audits. This rate has progressively increased from 34.5% in 2006 to 88% in 2020. of the 94 patients included, 83 (88%) were prescribed appropriate VTE prophylaxis, 3 (3%) were prescribed VTE prophylaxis, though not appropriately, 8 (9%) had indications for prophylaxis, but were not prescribed. of note, 3% of the study population who did not receive prophylaxis, had suffered a stroke.

Conclusions: Despite sustained improvements in the prescribing rate through continued education, placement of the DVT prophylaxis reminder in the admission proforma and regular audit, incorrect prescribing persists. This is particularly evident, post stroke.

PV869 / #688

TWICE IN A ROW: OBSTRUCTION OR COINCIDENCE?

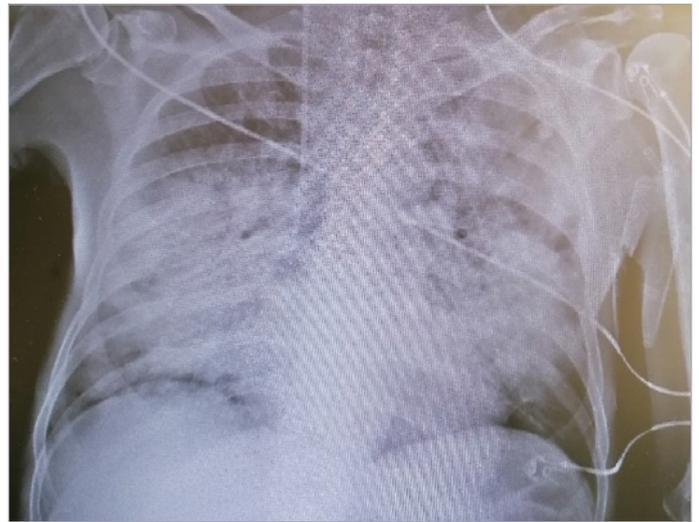
Carolina G. Branco, Mariana F. Reis, Ana P. Vilas

Centro Hospitalar Universitário Lisboa Norte – Hospital Santa Maria,
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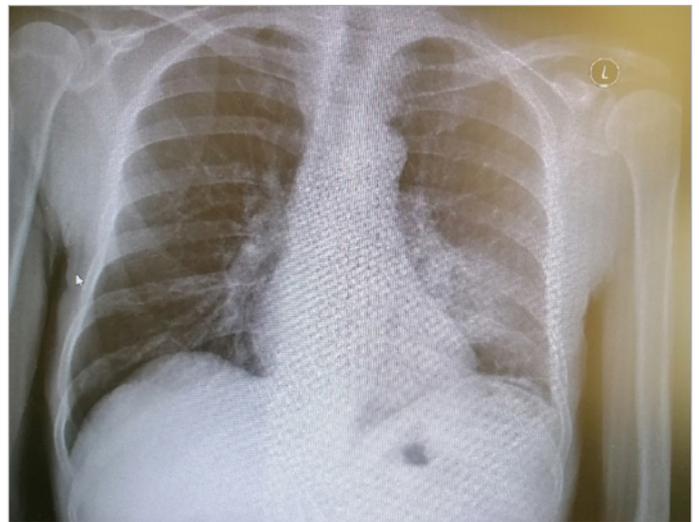
Background and Aims: Post-obstructive pneumonia (POP) is a well-known complication of lung cancer, usually with poor prognosis. We present a case of a man with 2 community acquired pneumonia (CAP) who was diagnosed with POP.

Methods: Information was gathered from clinical practice.

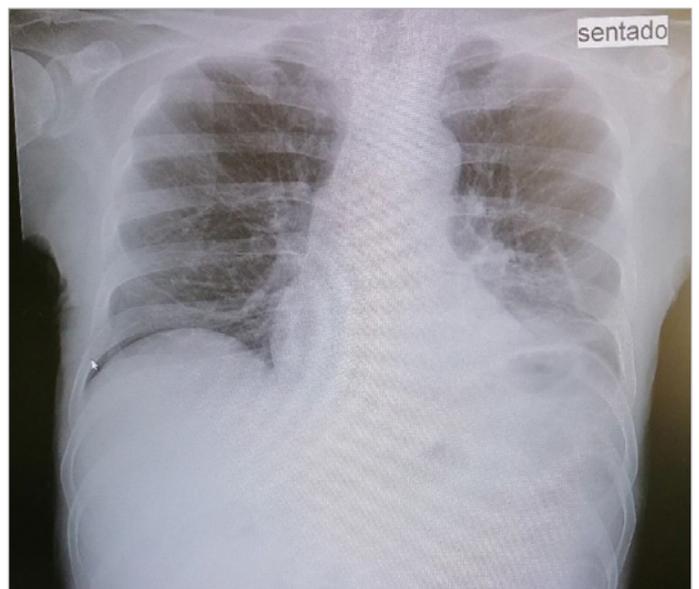
Results: 64-year-old male smoker with chronic bronchitis, arterial hypertension and diabetes, hospitalized in Feb./2019 with CAP with bilateral ground-glass opacities and consolidations (Figure 1 #688). H1N1 infection was diagnosed. He needed mechanical ventilation and was treated with oseltamivir, ceftriaxone and azithromycin. On discharge, lower left lobe (LLL) opacities persisted (Figure 2 #688). He remained well until Feb./2020, when his cough worsened. In May/2020 he initiated gait unbalance and left-side hemiparesis. A right parietal haematoma was diagnosed. He was discharged clinically improved. In Jul./2020 his cough and hemiparesis worsened. He had anaemia, leucocytosis, high C-reactive protein and altered liver tests. Chest-X-ray showed LLL opacity (Figure 3 #688). Brain-CT-scan presented a right parieto-occipital lesion with haemorrhage. Brain-MRI suggested malignancy (Figure 4 #688). We considered lung cancer complicated by POP and cerebral metastasis. Body-CT-scan showed a LLL heterogeneous mass with hilum incarceration and



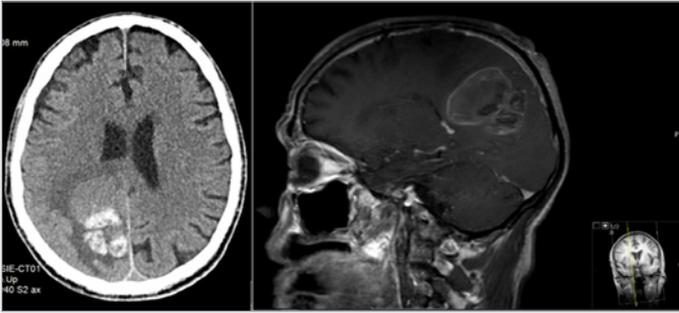
#688 Figure 1



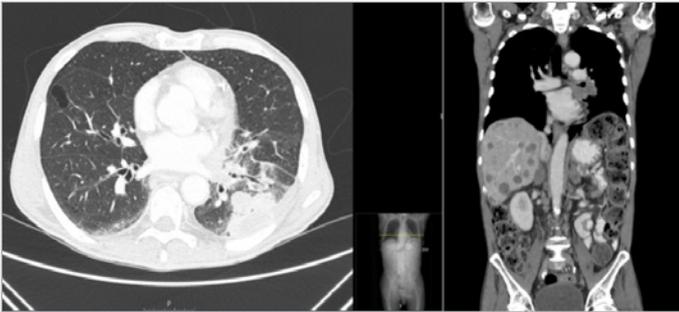
#688 Figure 2



#688 Figure 3



#688 Figure 4



#688 Figure 5

suprarenal, liver, pancreatic, peritoneal, bone and abdominal lymph-node metastasis (Figure 5 #688). Unfortunately, he died before anatomopathological testing.

Conclusions: In this case, 2 pneumonias in the same location made us consider POP. Indeed, the CT-scan suggested metastatic lung cancer, but POP usually occurs in advanced disease and these 2 episodes happened 16 months apart. Pancreas, peritoneum and abdominal lymph-node metastasis are rare, but documented in lung cancer, the latter only in non-small-cell lung cancer.

PV871 / #851

A RARE DISEASE IN PANDEMIC TIMES: BOOP

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Case Description: 70 year old man with pathological history of arterial hypertension, insulin-treated type 2 DM, asthma, heart failure, heavy ex-smoker (20 UMA) with fever; dry cough and dyspnoea, with 3 weeks of evolution, with previous exposure, possibly to fungal agents and humidity, for about 3 months. X-ray with diffuse infiltrate and pulmonary opacity, he was diagnosed with community-acquired pneumonia, treated with beta-lactam and macrolide, without clinical improvement. Later, he went to the hospital, where a more detailed study was done.

Clinical Hypothesis: Pneumonia, SARS-CoV-2, Tuberculosis, Aspergillosis, Bronchiolitis Obliterans Organizing Pneumonia (

Results: Analytically: leukocytosis; neutrophilia; lymphocytosis; gradual increase in eosinophil count; high IgE and PCR. The study of exclusion of autoimmune diseases was negative. CT-Chest and the RCT-PCR test for SARS-CoV-2 ruled out the possibility

of infection with the Corona SARS-CoV-2 virus. Antigenuria for *Legionella* and *Pneumococcus* was negative. Two blood cultures; urine culture requested were also negative. Sputum culture and the BAAR study were negative in three samples. Bronchoalveolar lavage negative for bacteria and negative pathological anatomy for neoplastic cells. Histologically observed, areas of alveolar collapse, due to interstitial fibrosis, with lymphoplasmocytic infiltrate with eosinophilic and spongy intra-alveolar macrophages, revealed a picture of organizational pneumonia, associated with hypersensitivity pneumonia.

Conclusions: Despite the current epidemiological context (COVID-19 pandemic), we should not devalue other relevant pulmonary pathologies. BOOP can be associated with several pathologies. In this case, associated with hypersensitivity pneumonia. With a favorable prognosis. The best treatment was high doses of corticosteroid therapy, regardless of the various cycles of antibiotics, during hospitalization.

PV872 / #877

RAPID ACCESS LUNG CANCER CLINIC DEFERRAL LETTER AUDIT

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Background and Aims: The National Cancer Control Program (NCCP) provides guidance on how patients should be referred to the rapid access lung cancer clinic (RALC). University Hospital Limerick provides this service to over 400,000 people. There is a large volume of referrals with a resultant strain to meet the optimal performance index. It was suspected that a number of referrals with an abnormal chest x-ray may not need to be seen, provided that the clinical picture was in keeping with an acute infection.

Methods: We performed a review of all deferral letters sent from July 2017 to March 2020. We carefully selected the letters which met the inclusion criteria. We separated them into three categories: Those re-referred as repeat imaging showed persistent changes, those who were not re-referred as repeat imaging showed total resolution of abnormality and those not re-referred with no evidence of repeat imaging present on our radiology system.

Results: Eighty-five of three-hundred-and-twenty-three letters met the inclusion criteria. 38 patients (44%) were re-referred as repeat imaging showed persistent changes. 27 patients (32%) were not re-referred as repeat imaging demonstrated resolution of the abnormality. 20 patients (24%) were not re-referred and no repeat imaging was performed.

Conclusions: As a result of this audit, it can be shown that up to a third of patients can be safely triaged back to primary care for follow up. With further evaluation this may be an important criterion for consideration when devising National Guideline. Further study is required to determine whether these improvements lead to improved efficiency and cost-effectiveness.

PV873 / #947

TRACHEAL CARTILAGE RINGS EXPOSURE

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Background and Aims: Tracheal cartilage rings exposure is a rare tracheal damage after tracheostomy, although they increased with the duration of tracheostomy. It's caused by the mechanical aggression of the tube and inflatable cuff, associated with a foreign body reaction on tracheal mucosa.

Methods: We report a case of tracheal cartilage rings exposure.

Case Description: A 63-year-old woman with a past medical history significant for type 2 diabetes mellitus was admitted in intensive care unit with cardiogenic shock associated to respiratory acidemia due to acute decompensated heart failure. The patient had been on ventilatory support for 44 days and tracheostomy was performed on day 16 due to prolonged orotracheal intubation. Already in unassisted spontaneous breathing was reported difficulty in closing tracheostomy and secretion release. Flexible bronchoscopy revealed necrosis of the anterior wall of the mid-trachea with an exposure of 2 rings, histologically confirmed. The patient started corticotherapy and was reevaluated 3 weeks later with reduction of necrosis areas and partial re-epithelialization of the rings. The patient was transferred from the hospital to a rehabilitation unit after 89-day stay with bronchoscopy follow-up scheduled in 2 months.

Conclusions: Due to the increased likelihood of tracheal lesions after prolonged tracheostomy, flexible bronchoscopy inspection can provide benefits to diagnosis tracheostomy complications.



#947 Figure

PV874 / #951

A LOOK INTO LUNG ABSCESS: RISK FACTORS AND OUTCOME PREDICTORS

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Background and Aims: Lung abscess (LA) are thick walled cavities that contain purulent material. Our goal is to identify the predictors a poor outcome.

Methods: Restrospective review of 73 adult patients admitted in our department from 2013 to 2019 with LA.

Results: From 73 patients, 80% were male, with a mean age of 62 years-old [20-93]. The most common risk factors were smoking (45%), alcoholism (41%) and periodontal disease (29%). At admission, they presented with cough (80%), sputum (71%), general malaise (51%) and fever (48%). The mean duration of symptoms was 19 days [1-60]. 77% of the cases were classified as primary. The majority was located in the right lung (54,8%), 11% were bilateral. The majority of the organisms identified were polymicrobial bacteria. In 29% the organism was multi-drug resistant (MDR) and in 7% extensively-drug resistant (XDR). The average length of IV treatment was 29 days [7-56], 53% switched to oral afterwards. 25% had a poor response to antibiotics, 17% were submitted to drainage with chest tube and 3% to surgery. The mortality rate was 15%. The predictors of complications and absence of response to antibiotics ($p < 0.05$) were presence of bloody sputum, symptoms for longer than 20 days, pleural fluid and isolation of MDR organisms. Immunosuppression and isolation of MDR organisms were related to a higher mortality rate ($p < 0.05$).

Conclusions: LA remain an important cause of morbimortality and its correct management is essential. In case of a poor response to antiotics other options should be considered (drainage/surgical intervention). Our goal is to raise awareness to the main predictors of a worse outcome.

PV875 / #989

PNEUMONIAS - HOW ARE WE TREATING THEM?

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Background and Aims: Community-acquired pneumonia (CAP) is defined as a 'de novo' pulmonar infiltrate with infectious origin; acute bronchitis (AB) is distinguished by the absence of radiologic changes. Our goal is to evaluate the most susceptible population, cost-effectiveness of complementary exams and antibiotherapy effectiveness.

Methods: Analysis of 151 patients admitted to the Internal Medicine Service with CAP (95) or AB (56) diagnosis, without the need for Intensive Care.

Results: Mean age was 78 years-old, 52% of female gender, 27% living in a nursing home and 50% were significantly dependent, Mean hospitalization time was 10 days. Most common comorbidities were heart failure, type-2 diabetes mellitus and COPD; no patients had been previously vaccinated. No significant difference between patients with CAP or AB, but symptoms and radiologic findings were less frequent and specific in AB patients. Most common blood test changes: hypoxemia (49%), neutrophilic leukocytosis (63%) and elevated CRP (79%). *Pneumococcus* antigenuria was positive in 8, influenza A antigen in other 12 and positive blood cultures in only 6 patients (4%). Majority of

patients was treated with amoxicillin/clavulanate with/without azithromycin for ~8 days, requiring escalation in 17% which was motivated by identification of agent in blood cultures in only 3 cases; 8% also had oseltamivir for 7 days.

Conclusions: It was found a high prevalence of respiratory infection, mostly in relation to older ages and more dependence. Low cost-effectiveness of blood cultures raises the concern that there is no need to perform them so frequently in patients hospitalized for respiratory infections without severity criteria that implies Intensive Care.

PV876 / #995

BIOLOGIC THERAPIES AND TUBERCULOSIS: KEEP IT IN MIND

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Case Description: A 36-year-old female, non-smoker, with a history of ulcerative colitis, receiving treatment with infliximab; previously treated with prednisolone and azathioprine. Before starting infliximab, her chest X-ray was normal and Interferon gamma release assays and tuberculin skin test were both negative. She was admitted in the emergency room for dry cough, asthenia, anorexia, fever, nocturnal hypersudoresis and weight loss with one month of evolution.

Clinical Hypothesis: Include respiratory infection in immunocompromised patient, pulmonary tuberculosis (TB) and interstitial pneumonitis associated with infliximab.

Diagnostic Pathways: Chest X-ray showed an opacity in the right upper lobe (RUL) and bilateral reticulonodular infiltrates. Chest CT revealed: large RUL consolidation with air bronchogram and bilateral miliary pattern; multiple mediastinal adenopathies. Abdominal CT showed heterogeneous spleen, with several hypodense micronodules, which was very suggestive of splenic involvement by tuberculosis. A bronchofibroscopy was performed and bronchoalveolar lavage was positive for acid fast bacilli as so as for PCR-assay for *Mycobacterium tuberculosis*. First-line anti-tuberculosis drugs were initiated with clinical, analytical and imagiologic improvement.

Conclusion and Discussion: Biologic therapies are a new standard of care in autoimmune diseases. Tumor necrosis factor (TNF) inhibitors such as infliximab, are associated with an increased risk of tuberculosis and this patients should be monitored closely for tuberculosis, irrespective of the screening results for latent infection. In this cases, TB frequently presents as extrapulmonary or disseminated disease, and clinicians must be alert for suggestive symptoms.

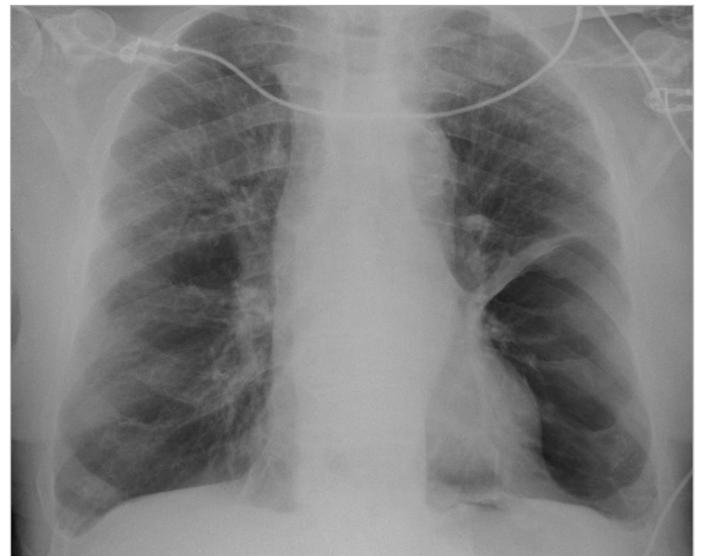
PV877 / #1001

ACUTE EMPHYSEMATOUS LUNGS

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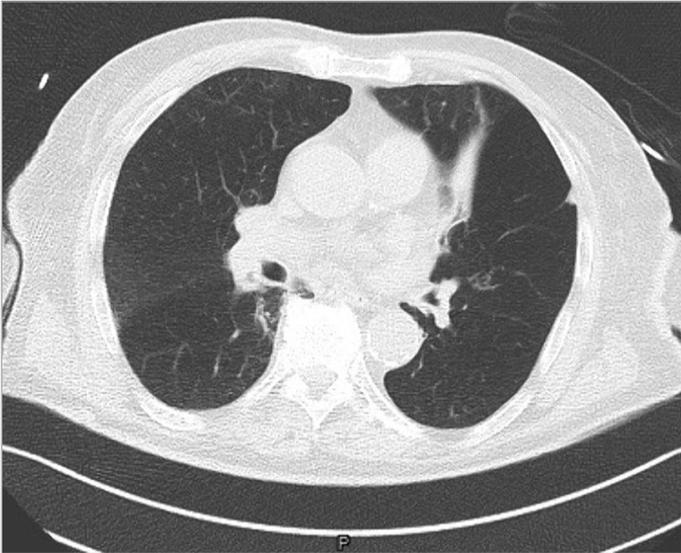
Case Description: We present the case of an eighty-two-year-old male with stage III Chronic Obstructive Pulmonary disease (COPD), who is admitted to the Emergency department due to fatigue, dyspnoea and obtundation with 24 hours of duration. At admission he is febrile and hypoxemic, and auscultation revealed decreased lung sounds, particularly on the left lung base, with dispersed wheezing and increased respiratory time. He had the following chest radiograph.



#1001 Figure 1



#1001 Figure 2



#1001 Figure 3

Clinical Hypothesis: The chest radiograph shows a hyperlucent left base, which may be compatible with a localised or loculated pneumothorax, and would fit the acute presentation and past medical history. However, on closer inspection, discreet bronchovascular markings may be seen on this space, therefore complicating the definite diagnosis.

Diagnostic Pathways: To clarify our findings the patient did a thoracic CT scan which revealed marked and diffuse emphysematous pulmonary disease, specially of the lower lobes, with thickening of the oblique fissure of the left lung and atelectasis of the lingula. There was no observable pneumothorax.

Conclusion and Discussion: Severe COPD exacerbations may be caused by, or manifest similarly to, pneumothorax. Differential diagnostic workup between both diseases is important, specially if there is previous history of pneumothorax or radiologic evidence of marked emphysema or pulmonary bullae.

PV878 / #1058

ALLEGED UNRESOLVED PNEUMONIA - A CASE OF CRYPTOGENIC ORGANIZING PNEUMONIA

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Case Description: A 60-year-old, non smoker woman, with a previous medical history of hysterectomy due to a adenomyoma, without usual medication, presented to emergency service with dyspnoea, fatigue and four months history of dry cough, associated with weight loss of 5 Kg. Patient denied fever, chest pain, hemoptysis, as well as recent travel or sick contacts.

Clinical Hypothesis: Patient was transferred to the ward and began empiric antibiotic therapy however, developed further respiratory deterioration. In this context, the existence of possible

complications and other diagnosis was considered such as septicaemia, pleural effusion, empyema and lung abscess, Acute Pulmonary Embolism and pulmonary neoplastic disease.

Diagnostic Pathways: First blood results showed raised white blood cells count, C-reactive protein and sedimentation velocity. Two consecutive SARS-CoV-2 test were negative. The chest CT angiography showed bilateral peripheral areas of consolidation with bronchogram mainly affecting the lower lobes. Pulmonary embolism was excluded. Blood, urine and sputum culture were all negative. Bronchoscopy was performed with bronchial wash excluding neoplastic cells and infective agents. Connective tissue disease was also dismissed. Surgical biopsy of lung was done and the histological results revealed moderate lymphoplasmacytic infiltrate with preserved architecture. As no underlying context was found, Cryptogenic Organizing Pneumonia (COP) was diagnosed and patient started glucocorticoid therapy with an exceptional response.

Conclusion and Discussion: With the current report we aim to promote awareness that in the absence of clinical and imaging improvement, further studies must be done in order to obtain the appropriate diagnosis. Patients with COP demonstrate a rapid symptomatic response to treatment and most patients achieve complete cure.

PV879 / #1066

THE COMPLEXITIES OF DIAGNOSING INTERSTITIAL LUNG DISEASE

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Background and Aims: Interstitial-Lung-diseases (ILD) are a heterogeneous group of disorders that are classified together because of similar, radiological, physiological or pathological manifestations. ILDs are divided into those that are associated with known causes and those that are idiopathic. There is a large group of over 200 parenchymal pulmonary disorders which cause ILD, the majority of which are classified as rare. This can make the aetiological diagnosis of ILD particularly difficult. IgG4-related-disease is typically a multi-organ disorder characterised by the infiltration of plasma cells with IgG4. We present the case of IgG4 related ILD with solitary lung involvement which demonstrates the complexities of diagnosing ILD.

Methods: IgG4-related-disease is typically a multi-organ disorder characterised by the infiltration of plasma cells with IgG4. Whilst solitary lung-involvement is rare and remains a diagnosis of exclusion, it is an important differential to consider in the setting of Interstitial Lung Disease (ILD). We present the case of a 70-year-old-male presenting with chronic cough and polyarthritis. CT-thorax revealed ILD associated with bilateral axillary lymphadenopathy. Subsequent transbronchial biopsy was negative for malignancy and granulomatous disease.

Results: Serum ACE and autoimmune screen were negative but

revealed an IgG4 level 20 times the upper limit. Furthermore axillary biopsy demonstrated IgG4:IgG positive plasma cells at >40%.

Conclusions: This case demonstrates the diagnostic complexities of Interstitial Lung Disease. It remains primarily a diagnosis of exclusion and IgG4 related disease is a rare entity that clinicians must be aware of.

PV880 / #1111

FROM OBSTRUCTIVE SLEEP APNOEA TO PLASMA CELL DYSCRASIA

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Case Description: A 45-year-old male patient was referred to a specialised Sleep Pathology consultation for nocturnal complaints of snoring and apnoeas, and excessive daytime sleepiness and fatigue. On interview, referred recurrent respiratory infections were apparent. Physical examination showed mild obesity, decreased respiratory sounds on the right hemithorax and an SpO₂ of 94% (FiO₂ 21%).

Clinical Hypothesis: Based on these complaints, an hypothesis of obstructive sleep apnoea and possible obesity-hypoventilation syndrome were put forward and the patient was referred to a Pulmonology consultation for investigation of the recurrent respiratory tract infections.

Diagnostic Pathways: Home sleep testing revealed moderate sleep apnoea, worsened in supine position, and nocturnal hypoxaemia (T90=41%, average SpO₂ 89.7%), and the patient was started on auto-CPAP 7-13 cmH₂O by nasal interface, with prompt near-full adherence and improval of diurnal and nocturnal complaints. Lung function testing was normal. Arterial blood gas sampling revealed hypoxaemia (PaO₂ 78.4 mmHg) with no hypercapnia. Blood work-up revealed absence of alterations in the citometry, renal function or liver function testing. HIV testing was negative. A suspicion of a monoclonal protein was brought about by serum protein electrophoresis, and was then conformed by immunofixation. Serum immunoglobulin quantification revealed immunoparesis and a predominance of IgG (21.78 g/L) and lambda light chains (21.41 g/L). Peripheral blood immune phenotyping revealed 0.006% clonal plasmocytes. Bone marrow aspiration cytology revealed 6.8% plasmocytes of abnormal phenotype. In situ hybridization was positive for poor prognostic markers - CKS1B gain-of-function and IGH rearrangement.

Conclusion and Discussion: We present a case of plasma cell dyscrasia admitted to a specialized Sleep Practice as excessive daytime fatigue.

PV881 / #1134

ONE SHRINKING LUNG IS BAD, TWO IS AN EMERGENCY

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Case Description: A 20-year-old male with no past medical history was admitted in the emergency department with shortness of breath with few days of evolution. He admitted smoking habits and marijuana consumption but denied occupational risk factors or trauma. He was hemodynamically stable but with polypnea despite a peripheral oxygen saturation of 96% in room air. Cardiopulmonary examination revealed decreased breath sounds in both upper lung fields. A diagnosis of bilateral spontaneous pneumothorax was made by a chest x-ray. To prevent a tension pneumothorax, bilateral chest drains were promptly inserted, with immediate improvement in respiratory rate. Chest computed tomography showed subpleural blebs and a volume reduction of the pneumothorax on both sides. The right pneumothorax resolved within 3 days, while the left lung showed inability to re-expand. Within 24 hours the patient underwent to video-assisted thoracoscopic surgery with apical bleb resection and pleurodesis. Biopsy of blebs showed emphysema. After one year follow up, no recurrence of pneumothorax was observed.

Clinical Hypothesis: In this patient, bilateral pneumothorax was spontaneous and due to rupture of the lung blebs. Smoking habits was a risk factor.

Diagnostic Pathways: Diagnosis was established by chest x-ray. Etiological study was pursued excluding the most common causes: trauma, tumor, sarcoidosis and alpha-1 anti-trypsin deficiency.

Conclusion and Discussion: Spontaneous bilateral pneumothorax is a rare emergent medical condition. This case demonstrates that a prompt chest drainage is a critical step to prevent life-threatening tension pneumothorax and to improve clinical condition. Surgical intervention should also be considered early.

PV882 / #1137

BRONCHOPLEURAL FISTULA AS A RARE COMPLICATION OF PULMONARY EMBOLISM

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Case Description: A 43-years-old male, with medical history of glioblastoma was admitted to the emergency department, with tiredness, cough and pleuritic chest pain for the past two weeks. The CT imaging revealed a pulmonary embolus in the right pulmonary artery. Anticoagulation was initiated and the patient eventually discharged. Two weeks later he returned complaining

with sudden cough and dyspnea. Examination showed a diminished vesicular murmur in the right hemithorax. Laboratory evaluation revealed hemoglobin 9.2 g/dL, C-reactive protein 12.9 mg/dL. Chest x-ray revealed hypertransparency in the superior two thirds portion of the right hemithorax.

Clinical Hypothesis: Pneumothorax was hypothesized.

Diagnostic Pathways: Angio-CT-scan revealed right pneumothorax with mediastinum deviation and pulmonary collapse; two pneumatoceles. A pleural catheter was placed in the fifth intercostal space, draining a purulent and bubbly liquid. Piperacillin-tazobactam was initiated and *Pseudomonas aeruginosa* isolated in the pleural fluid. CT-scan repetition showed persistent pneumothorax due to a bronchopleural fistula. Surgery was not performed, given the progression of the neoplasm. New catheter placement was performed. The patient presented clinical and radiologic improvement without completely pulmonary expansion or purulent drainage cessation.

Conclusion and Discussion: This case illustrates a pyopneumothorax with bronchopleural fistula as a complication of pulmonary embolism with infarcted areas. Few cases reporting this life-threatening condition have been described in the literature, with a 10% incidence. Bronchopleural fistula has a mortality rate between 18 and 67%, higher in cases with large infarction areas.

PV883 / #1140

A THIN LINE BETWEEN AN EMPYEMA AND A LUNG ABSCESS

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Case Description: A 53 year-old man presented with a three week history of left pleuritic chest pain, diaphoresis and anorexia, with no fever, cough or sputum. His past history included hypertension, diabetes, smoking and alcoholism. Chest auscultation showed abolished breath sounds on the inferior left lung. Laboratory results showed increased inflammatory markers. A thorax CT scan revealed a 15 cm cavitated lesion with captive walls. He was started on antibiotics. Given the liquid content and the lesion size, drainage was decided.

Clinical Hypothesis: At this point we were suspecting of a pulmonary abscess.

Diagnostic Pathways: Reevaluation CT showed maintenance of the collection. The patient was submitted to a videothoracoscopy that detected a lung adherent to the wall in the left lower lobe and a purulent and loculated pleural effusion, compatible with empyema. Pleurectomy and decortication were performed, followed by 6 weeks of antibiotics. No microbiological agent was isolated.

Conclusion and Discussion: In this case, the absence of fever and sputum pointed to empyema and, conversely, the fact that the patient had alcoholism and smoking favored the possibility of abscess. The CT image, in turn, dictated the diagnosis of abscess,

albeit erroneously, as it presents as a cavitated lesion with thick walls. Given the atypical evolution, the surgical approach confirmed the diagnosis. Differentiating between lung abscess and empyema can be difficult, with important therapeutic consequences.

PV884 / #1176

CRYPTOGENIC ORGANIZING PNEUMONIA - CASE REPORT

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Case Description: A 74-year-old woman was admitted to the Emergency Department for dyspnea and persistent nonproductive cough with 1 month of evolution. She denied any recent travel or drugs. In the past year, she was treated twice for pneumonia. She had no relevant medical history and no chronic medication. On physical examination, her temperature was 38.2°C, pulse rate was 81/min regular, blood pressure was 119/46 and oxygen saturation was 97% in room air with a frequency of 20 cycles per minute. Lung examination reveals crackles at the base of left lung. The laboratory evaluation was normal except, PCR (114 mg/dl). Chest computed tomography revealed bilateral pulmonary infiltrates, with nodular consolidating area in the in the left lower lobe with 25 mm. She was hospitalized and she was treated empirically with piperacillin/tazobactam. During hospitalization, no microbiological agent was isolated. Tests for autoimmune disease were negative. A lung biopsy revealed cryptogenic organizing pneumonia and no malignant cells were identified. The patient completed antibiotic therapy and months later, the lesions in lung were in regression.

Clinical Hypothesis: Cryptogenic organizing pneumonia

Diagnostic Pathways: Chest computed tomography; lung biopsy

Conclusion and Discussion: The decision to initiate therapy and the choice of initial therapy depend on the severity of symptoms and the radiographic extent of disease. Spontaneous remissions have been described, however, it is known that oral glucocorticoids result in marked improvement in symptoms.

PV885 / #1229

A SEVERE PNEUMOMEDIASTINUM SECONDARY TO MECHANICAL VENTILATION

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Case Description: A 65 year-old male was admitted for hematemesis with hypovolemic shock at the intensive care unit under invasive mechanical ventilation (IMV). Endoscopic study

revealed multiple duodenal ulcers which were endoscopically treated. Patient developed pneumonia with severe respiratory insufficiency with need of high-pressure IMV. Nearly fifteen days later, he was extubated. However, after five days he experienced sustained hypotension associated with non-audible cardiac sound and crackling feel suggesting subcutaneous emphysema, was identified. An immediate transthoracic echocardiogram was performed but the heart was not visible in any perspective.

Clinical Hypothesis: The hypothesis of a pneumomediastinum was thought. Therefore, a thoracic CT was done and showed an extensive pneumomediastinum with emphysema in the different cervical and thoracic wall compartments, probably obstructing heart filling. There were no signs of pneumothorax.

Diagnostic Pathways: Peak inspiratory pressure and Positive end-expiratory pressure were decreased and FiO₂ was increased to 100%. However, the patient's condition deteriorated rapidly which led to an irreversible cardiac failure and the decision not to reintubate. No further studies were conducted (eg. endoscopy or bronchoscopy). The patient died 12 hours later.

Conclusion and Discussion: This is probably a case of pneumomediastinum caused by high-pressure IMV. Barotrauma complications due to IMV include pneumomediastinum, pneumothorax, subcutaneous emphysema and pneumoperitoneum. These complications are usually self-limited and management is conservative, but tension pneumomediastinum, as in this case, is an exception. It is probable that the air in the mediastinum under tension may have compressed the great veins, thus reducing venous return to the heart. Additionally, it may have obstructed heart filling thus resembling cardiac tamponade.

PV886 / #1304

BILATERAL PLEURAL EFFUSION IN TUBERCULOSIS

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Case Description: A 47 year old male presented with cough, expectoration and grade II MMRC breathlessness since 1 month with history of loss of appetite and loss of weight for 2 months.

Clinical Hypothesis: Patient was evaluated clinically, Sputum culture and sputum for AFB done. His chest X-ray showed bilateral pleural effusion and a pleural fluid analysis done subsequently was suggestive of exudative effusion. ADA was within normal limits. A subsequent Pleural biopsy was done due to high suspicion of tuberculosis which was suggestive of the same. CT chest was suggestive of Koch's.

Diagnostic Pathways: Pleural effusions secondary to tuberculosis pleuritis are usually unilateral. In approximately 20% with pleural effusions secondary to TB can be bilateral. In patients with lymphocytic effusion, In spite of normal ADA levels, TB was confirmed by Pleural biopsy.

Conclusion and Discussion: Patient started on ATT and improved eventually and is currently on follow up. Hence we present this unique case of bilateral pleural effusion diagnosed and successfully treated as tuberculosis.

PV887 / #1459

MANAGING PULMONARY FIBROSIS AND NON-SMALL-CELL LUNG CANCER

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Case Description: A 52-year-old man, heavy smoker, that worked in a quarry (with no use of respiratory protective equipment), with previous history of lung tuberculosis, was admitted to hospital due to a spontaneous pneumothorax with need of drainage.

Clinical Hypothesis: During his evaluation, a CT scan of the chest was performed that showed a 4 cm spiculated mass in the right lower lobe and extensive areas of bilateral residual fibrosis in the superior lobes, as well as lymphadenopathies suspicious of a granulomatous process.

Diagnostic Pathways: The patient was evaluated by Pneumology, that concluded that the areas of fibrosis in imaging scans were the consequence of silicosis, considering the patient's work exposure. A biopsy of the right lower lobe mass was performed, and histological analysis revealed an adenocarcinoma of the lung, PD-L1 positive. Due to the presence of lung fibrosis, which heightens the risk of pulmonary toxicity to systemic therapy, including immunotherapy, his case was discussed in a multidisciplinary board, and it was decided that the patient would initiate chemotherapy with carboplatin and pemetrexed. He was evaluated after the first cycle and was reasonably tolerating treatment. Due to his lung fibrosis, he will continue treatment under close surveillance in order to monitor for pulmonary toxicity.

Conclusions: This is a case of a patient with previous history of multiple pulmonary insults such as smoking, silica exposure and tuberculosis, resulting in pulmonary fibrosis. Smoking is by far the best-established risk factor for lung cancer but whether the remaining factors have contributed to the development of lung cancer is still being investigated.

PV888 / #1506

THE IMPACT OF A GLOBAL PANDEMIC IN HEALTHCARE OF A PATIENT WITH CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION

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Case Description: A 28-year-old female with recent diagnosis of chronic thromboembolic pulmonary hypertension (CTEPH) with follow-up in the PH unit, met the criteria for pulmonary endarterectomy (PEA) to be realized in a specialized center. However, given the current pandemic context for COVID-19, surgical intervention was delayed. However, the patient presented progression of symptoms with WHO functional class IV, serum NT-proBNP significantly raised and was able to walk 180 m in the 6MWT without experiencing hypotension or desaturation.

Clinical Hypothesis: Meanwhile, the team initiated treatment with epoprostenol until the PEA was performed.

Diagnostic Pathways: When placing the ultrasound-guided central venous catheter to initiate treatment, the procedure was complicated by large right hemothorax with hemodynamic instability. Given this, a urgent VATS drainage was performed. Postoperative was complicated due to infection of residual clots, subsequently undergoing percutaneous drainage and treated with broad spectrum antibiotics. In view of progressive clinical and imaging improvement, with angioTC showing almost complete right pulmonary reexpansion, the patient started epoprostenol with good tolerance.

Conclusion and Discussion: PH remain a challenging chronic progressive disease. CTEPH is a major cause of chronic PH leading to right heart failure and death. In addition to chronic anticoagulation therapy, each patient with CTEPH should receive treatment assessment starting with evaluation for PEA, which is the guideline recommended treatment. This clinical case aims to demonstrate the impact of the current pandemic on healthcare delivery and the way this is going to be felt for years to come with a significant worsening of morbidity and mortality.

PV889 / #1543

PROGNOSTIC VALUE OF CARBOXYHEMOGLOBIN DURING COPD EXACERBATION

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Background and Aims: Carboxyhemoglobin (COHb) is a complex formed by the binding of carbon monoxide to hemoglobin in

the blood. Higher COHb levels have been associated with poor prognosis in a variety of pulmonary disorders. However, little is known regarding the prognostic significance of COHb among individuals with chronic obstructive pulmonary disease (COPD) exacerbation.

Methods: In a retrospective study, we evaluated associations of venous COHb levels with the need for invasive mechanical ventilation, in-hospital mortality, and re-hospitalization among 300 patients hospitalized for COPD exacerbation in internal medical wards.

Results: Rates of in-hospital death and 1-year recurrent hospitalizations were 11.0%, and 59.6%, respectively. COHb levels were not significantly associated with in-hospital mortality (OR=0.82, p=0.25, 95% CI 0.59-1.15) or with 1-year re-hospitalizations (OR=0.91, p=0.18, 95% CI 0.79-1.04). The mean COHb level did not differ significantly between patients who needed invasive mechanical ventilation and those who were not mechanically ventilated during the current hospitalization (2.01±1.42% vs. 2.19±1.68%, p=0.49).

Conclusions: Among patients hospitalized with COPD exacerbation in internal medicine wards, COHb levels were not associated with invasive mechanical ventilation treatment, re-hospitalizations, or mortality.

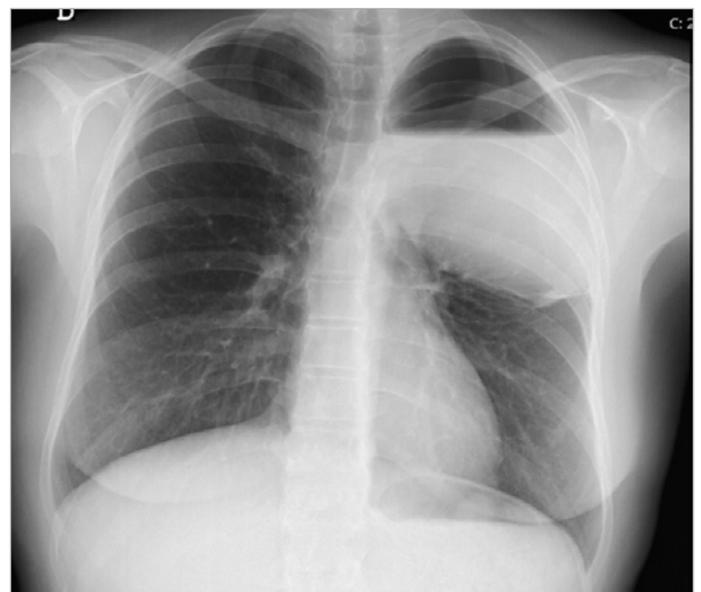
PV890 / #1569

PNEUMATOCELE: AN UNEXPECTED FINDING

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Background and Aims: Pulmonary pneumatoceles are thin-walled, air-filled cysts that develop within the lung parenchyma. They present as single lesions, but more often are multiple. Regularly, they occur as a sequel to acute pneumonia, but can also turn out after trauma.



#1569 Figure 1



#1569 Figure 2

Methods: We report a case of a pulmonary pneumatocele.

Results: A 42-year-old woman with no relevant clinical background presented to the hospital with chest pain in the left anterior hemithorax, tightness with dorsal irradiation and weight loss of about 10 kg in the last 6 months. The patient denied having symptoms of diaphoresis, anorexia, asthenia, fever, trauma, cough or dyspnoea. A pneumatocele was documented in CT scan as a 9 by 10 cm cavitated lesion, a partially liquid deposit with small air bubbles inside and air level in anterior position, which caused compression of the adjacent pulmonary apex. Empirical antibiotic therapy with ceftriaxone and clindamycin was initiated and there was a favorable clinical evolution. The underlying agent was not found.

Conclusions: Pneumatocele treatment is directed to the underlying cause, complications are rare and the outcome is favorable. A surgical approach is prescribed for complications such as tension pneumatocele, pneumothorax or infected pneumatocele. Thus, etiologic diagnosis becomes essential in subsequent approach to this pathology.

PV891 / #1615

BEWARE OF DIGITAL CLUBBING

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Background and Aims: Digital clubbing is one of the oldest clinical signs in medicine. It is characterized by enlargement of terminal fingers/toes segments and loss of the normal 160° angle between nail and nail bed caused by the proliferation of connective tissue between the nail matrix and distal phalange. Clubbed fingers show the Schamroth sign, the obliteration of the diamond-shaped window normally visible when the dorsal surfaces of the terminal phalanges of corresponding fingers from opposite hands are placed together. This sign is most commonly found in some pulmonary diseases (idiopathic pulmonary fibrosis, for example) and less frequently in cardiac, gastrointestinal or endocrine disorders. However, there are some pulmonary diseases in

which is rare, namely silicosis or sarcoidosis and often reflects an underlying serious condition.

Methods: We present three clinical images of a patient with digital clubbing.

Results: 59-year-old man with a past medical history of silicosis recurred to the hospital with complaints of unexplained weight loss and shortness of breath. At physical examination he presented digital clubbing of fingers and toes. He was admitted and after further investigations, he was diagnosed with a malignant neoplasm of the lung.



#1615 Figure

Conclusions: Despite being common in some pulmonary diseases, clubbing is uncommon in others (namely silicosis), therefore this physical finding should prompt a thorough investigation of underlying causes, such as malignancy.

PV892 / #1678

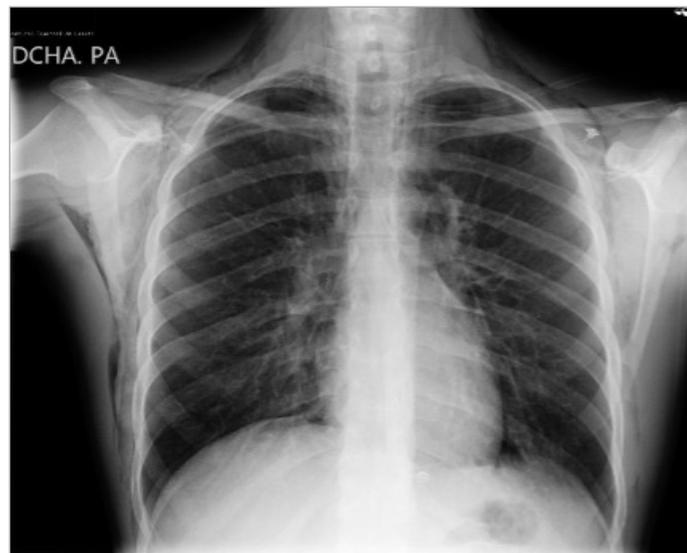
PNEUMOMEDIASTINUM IN YOUNG ASTHMATIC

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Background and Aims: Spontaneous pneumomediastinum is a rare and usually benign pathology that consists of the presence of free air within the mediastinum and is not preceded by trauma, surgery or medical procedure. Its main clinical manifestations are chest pain, dyspnea and subcutaneous emphysema. It may occur



#1678 Figure

secondarily to factors such as exacerbation of asthma or chronic obstructive pulmonary disease, respiratory effort and respiratory infections among others. The diagnostic test par excellence is the chest radiography.

Methods: The clinical case of a 20-year-old patient with a history of mild allergic asthma treated with salmeterol/fluticasone and terbutaline on demand is presented. Consultation for dyspnea and chest pain. In the physical examination, tachypnea, respiratory work and wheezing stand out. In addition, crackling in the left supraclavicular area. Analytically, leukocytosis with left deviation. The nasopharyngeal smear is positive for Influenza A virus.

Results: Chest radiography is performed showing small left pneumothorax, signs of pneumomediastinum and bilateral subcutaneous emphysema at cervical and thoracic level. The case is discussed with Pneumology who recommend a conservative attitude, maintaining oxygen therapy, treatment for flu and asthmatic exacerbation, adding antibiotherapy for bacterial superinfection. The patient presents clinical improvement with resolution of the bronchospasm, showing a clear improvement in the control X-rays with resolution of the pneumothorax.

Conclusions: In the vast majority of cases the treatment is conservative, in addition to the basic treatment if there is a predisposing factor. Recurrences are rare and the coexistence of pneumomediastinum and pneumothorax is infrequent. Both history of asthma and influenza A respiratory infection may be predisposing factors.



AS18. RHEUMATOLOGIC AND IMMUNE-MEDIATED DISEASES

PV893 / #31

KIKUCHI-FUJIMOTO DISEASE RELATED WITH SYSTEMIC LUPUS ERYTHEMATOSUS COMPLICATED WITH HEMOPHAGOCYtic LYMPHOHISTIOCYTOSIS: CASE REPORT

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Background and Aims: Kikuchi-Fujimoto disease (KFD) is a rare benign disease characterized by fever and cervical lymphadenopathy. Its etiology remains unknown and females are more affected than males. It can be associated with other autoimmune disorders especially systemic lupus erythematosus (SLE). Both KFD and SLE are rarely associated with the life threatening complication, hemophagocytic lymphohistiocytosis.

Methods: A 18-year-old girl with mental retardation presented with high-grade fever, cervical lymphadenopathy and bicytopenia. On examination, she had a firm right cervical lymphadenopathy and malar rash. An excision biopsy of her right cervical node revealed histiocytic necrotizing lymphadenitis and immunohistochemistry of the lymph node favored Kikuchi disease. Infection screening was negative. Initial antinuclear antibody and anti-double-stranded deoxyribonucleic acid and her C3 and C4 levels were normal. During hospitalization she developed hemophagocytic histiocytosis that was confirmed by bone marrow aspiration. Later her antinuclear antibody titer became positive in 1:320 and fulfilled the diagnostic criteria for systemic lupus erythematosus.

Results: She was managed with methylprednisolone pulse followed by oral prednisolone (1mg/Kg/day) associated with cyclosporine. She showed a remarkable improvement. At present, keeps follow-up in Internal Medicine outpatient department and remains clinically stable under prednisolone 1 mg/day and hydroxichloroquine.

Conclusions: This case was challenging for the patient was not able to manifest her symptoms. We present this case to increase the awareness for this rare condition.

Vithoosan, S., Karunaratna, T., Shanjeeban, P. et al. Kikuchi-Fujimoto disease associated with systemic lupus erythematosus complicated with hemophagocytic lymphohistiocytosis: a case report. *J Med Case Reports* 2019. <https://doi.org/10.1186/s13256-019-2100-1>.

La Rosée P et al. Recommendations for the management of hemophagocytic lymphohistiocytosis in adults. *Blood* 2019 doi: 10.1182/blood.2018894618.

Yoon JH et al. Treatment outcomes and prognostic factors in adult patients with secondary hemophagocytic lymphohistiocytosis not associated with malignancy. *Haematologica* 2019. doi: 10.3324/haematol.2018.198655.

PV894 / #38

AN UNUSUAL PRESENTATION OF HUGHES STOVIN SYNDROME - CASE REPORT

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Background and Aims: Hughes Stovin Syndrome (HSS) is a very rare clinical disorder characterized by thrombophlebitis and multiple pulmonary aneurysms. Most patients develop peripheral venous thrombosis. We present a case of a 56 years old male patient, diabetic on insulin therapy, that was admitted five times in the last two years due to recurrent fever. One of his major complaints was right upper quadrant pain, without any other related symptoms. He was prescribed several antibiotics in the last hospitalizations and upon improvement was discharged.

Methods: He was admitted again in May 2020 and diagnostic work up was repeated including autoimmune markers, viral serology, LTBI - IGRA, bacterial and fungal cultures, echocardiography, chest abdominal pelvic CT, bone marrow biopsy and PET scan that were inconclusive for diagnosis. After one course of amikacin chest CT was repeated and vasculitis of the pulmonary artery segmental branches de novo were found.

Results: The venous Doppler ultrasound was negative for lower limbs thrombophlebitis or thrombosis. He started methylprednisolone pulse followed by oral prednisolone 60 mg daily, tapered down 10 mg weekly, associated with iv cyclophosphamide monthly. His clinical condition improved with fever remission.

Conclusions: Hughes-Stovin Syndrome is a very rare disease and without venous involvement is even less frequent. In our

report, the patient did not have any systemic involvement and manifested only high grade fever. Thus, we wanted to share this case to increase awareness for this disease.

Khalid U, Saleem T. Hughes-Stovin Syndrome. *Orphanet J Rare Dis* 2011. doi: <https://doi.org/10.1186/1750-1172-6-15>.

Hamdy F et al. Hughes-Stovin syndrome without venous involvement Unusual presentation of a rare disease: Case report and review of the literature. *The Egyptian Rheumatologist* 2020 doi: <https://doi.org/10.1016/j.ejr.2019.09.001>.

PV896 / #53

HERZMYASTHENIE IN A PATIENT TREATED BY NIVOLUMAB

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Background and Aims: Nivolumab is a human immunoglobulin G4 monoclonal antibody, which inhibits the PD-1 receptor. We report a case of neurological and cardiac side effect in the same patient treated by nivolumab.

Methods: A 81-year-old man was diagnosed a scalp melanoma with lymph node metastases. Comorbidity: ocular myasthenia. He started nivolumab. After two cycles, hospitalisation for syncope: ecg BAV III, troponin 430 ng/ml. PMK implantation is decided. After two weeks new access due to asthenia and blurred vision. Blood laboratory test revealed increased of troponin 1.535 ng/ml, Creatin Kinase 1,438 U/L, Acetylcholine receptor antibodies were positive. Echocardiogram demonstrated diffuse dyssynergy not previously present. Diagnosis of immune myositis-myocarditis and myastheniform crisis was made. Intravenous methylprednisolone was started. One week later the patient deceased for septic shock.

Results: Herzmyasthenie was first proposed as a new entity in 1901. Some patients with MG have demonstrated autoimmune antibodies against heart or skeletal muscle as well as acetylcholine receptor. The diagnosis of the cardiac toxicity is based on the drug history, clinical manifestations, cardiac biomarkers and imaging examination. Troponin is most helpful for the diagnosis of ICI-related myocarditis. Immune-related adverse-effects are observed in about 50% of patients with myocarditis and the most common are myositis and Myasthenia Gravis. Most patients have positive anti-acetylcholine receptor antibodies, as detected in our patient. Suggested mechanisms include a shared antigen between the tumor and myocardium, T-cell receptor targeting a different but homologous muscle antigen as the tumor antigen.

Conclusions: In our patient there was a diagnostic delay. Immune checkpoint inhibitor therapy is now an important weapon against many cancers: kidney, lung, melanoma. Adverse effects can occur months after the last administration so clinicians must promptly recognize.

PV903 / #111

3-IN-1: BEHÇET'S DISEASE PRESENTING WITH RECURRENT VULVAR ABSCESSSES, ORAL ULCERS, AND SKIN PUSTULES

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Background and Aims: Behçet's Disease (BD) is a systemic vasculitis characterized by recurrent acute inflammation. There is limited data on BD in Southeast Asia. We discuss a woman with BD who presented with recurring vulvar abscesses.

Methods: Case Report.

Results: A 26-year-old female sought consult at the out-patient clinic for year-round recurrent vulvar abscesses, oral ulcers, generalized pustules, and arthralgia. Physical examination findings: ulcer at the superolateral labia and inferolateral border of the left hemitongue, non-healing ulcer at the left vulva, pustule at the left posterior thigh. Blood chemistry and urinalysis were unremarkable. HIV 1 and 2 ELISA, rapid plasma regain test, and pathergy test done were all non-reactive. Biopsy of the vulvar lesion was performed, malignancy and infection were ruled out. We diagnosed her as a case of Behçet's Disease based on the International Criteria for Behçet's Disease. She was started on Colchicine 0.6 mg once daily; educated on skin, oral, and perineal hygiene. On follow-up after one month, she noted the resolution of her vulvar abscesses, oral ulcers, and skin pustules. However, symptoms recurred in the last three months after discontinuing treatment. We used telemedicine to communicate with her, advising her to continue her medication. She followed-up after one month again and noted the resolution of symptoms.

Conclusions: The diagnosis of BD is clinical, and the goal in management is remission to improve the quality of life for the patient. This is done by hygiene education and drugs. Telemedicine follow-up offered a convenient and safe channel to deliver care in the time of the pandemic.

PV906 / #132

DRESS SYNDROME AS A COMPLICATION OF ANTICONVULSANT MEDICATION : A CASE REPORT

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Background and Aims: A 38 year old man with a history of epilepsy came to the ER febrile with nausea and vomiting, ageusia and pruritus. He reported recent modification in his anticonvulsant medication (valproic acid addition to carbamazepine). Clinical evaluation revealed submandibular tender lymphadenopathy and morbiliform rash (cutaneous and purpuric mucosal) of trunk and extremities. From the laboratory testing high inflammatory markers and abnormal liver function tests (R index: hepatocellular injury), plus high (total and direct) bilirubin, were noticed. Peripheral blood smear showed atypical lymphocytosis while abdomen ultrasonography, an enlarged spleen. Eosinophilia was not detected.

Methods: Due to the above findings, acute viral hepatitis, autoimmune hepatitis and drug-induced liver injury formed our differential diagnosis and were thoroughly investigated.

Results: The work-up included viral (HBV, HCV, EBV etc), microbiological and immunological (ANA, ASMA, etc) assays, serum ceruloplasmin and α 1-antitrypsin measurements. All were negative. Immunophenotyping of peripheral blood: CD8 (+) cytotoxic. During hospitalisation, anticonvulsant drugs were withdrawn (dechallenge). However, the liver failure was aggravated (INR prolonged) along with the rash and diffuse oedema. Under the suspicion of DRESS syndrome and a high RegiSCAR score, systemic corticosteroids, plus carnitine, were initiated with complete resolution of signs and symptoms ten days later. In the follow-up evaluation (1 month later) the patient showed no signs of recurrence or new autoimmunity. Rechallenge was not performed.

Conclusions: DRESS syndrome consists of a multi-organ idiosyncratic drug reaction that needs high clinical suspicion to diagnose, even without eosinophilia, therefore is really challenging. Delayed withdrawal of the causative agent increases substantially mortality and morbidity.

PV907 / #143

WHOLE BLOOD HYDROXYCHLOROQUINE CONCENTRATION AND CUTANEOUS LUPUS DISEASE ACTIVITY: A PILOT STUDY

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Background and Aims: Hydroxychloroquine (HCQ) is the first line systemic treatment for cutaneous lupus erythematosus (CLE). Whole blood HCQ (WBHCQ) concentration was found to correlate with CLE severity among Caucasians, however study on Asians are scarce. Here, we aim to explore the relationship of WBHCQ with CLE disease activity among the multi-ethnic Malaysians.

Methods: A cross sectional study involving 88 patients with CLE was conducted from 1st June till 30th November 2019 in Penang and Kuala Lumpur General Hospital. Disease activity were assessed using Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI). Bloods were analysed for WBHCQ concentration using high-performance liquid chromatography (HPLC) technique.

Results: A total of 88 subjects (male: female, 72:16) with a median age of 41 years old were recruited. Majority had CLE for a median duration of 5 years. Acute cutaneous lupus was the predominant skin presentation (n=45, 51.1%). Their median WBHCQ concentration was 946.8 ng/ml with Indian ethnicity demonstrating higher WBHCQ concentration, median of 1515.4 ng/ml. Male had a lower median WBHCQ concentration (733.5 ng/ml), compared to female (995.5 ng/ml). No clear correlation was demonstrated on WBHCQ with CLASI activity score ($r=-0.02$, 95% CI -0.23, 0.19, $p=0.851$). A positive correlation was found between HCQ dosage (ideal body weight) and WBHCQ ($r=0.24$, 95% CI [0.03, 0.42], $p=0.027$).

Conclusions: Gender and ethnicity are potential factors affecting WBHCQ in our multiethnicity population, further studies are required to confirm. Unlike other studies, we failed to demonstrate a correlation between WBHCQ and CLASI, likely due to the study design and patients' characteristic.

PV908 / #145

CASE-REPORT: ORGANIZING PNEUMONIA IN A PREGNANT WOMAN WITH RHEUMATOID ARTHRITIS DURING COVID-19 PANDEMIC

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Background and Aims: Rheumatoid arthritis is a systemic inflammatory disease characterized by destructive polyarthritis and extra-articular organ involvement. Lungs are one of the most commonly affected organ in RA, and the lung involvement in RA results in a various clinical features including interstitial lung disease and organizing pneumonia.

Methods: We describe the case of organized pneumonia discovered in a pregnant woman with known RA during COVID-19 pandemic.

Results: A 39-year old woman was admitted during COVID-19 pandemic at 30 weeks' gestation to maternity hospital with a 1-week history of cough, dyspnea and fever. Her medical history included RA. Chest CT performed at her admission revealed diffuse irregular nodular condensations with ground glass infiltrates and a right lower lobe parenchymal condensation in favor of superinfection. She was tested negative for SARS-CoV-2. Symptoms persists until the delivery. A new chest CT was then performed and revealed similar findings but some of the irregular nodular condensations showed a reversed halo sign and had a migrating character. Considering this typical image findings, the absence of causative infectious agents (excluded by BAL performed after delivery) and the absence of response to antibiotics, we concluded with a diagnosis of OP secondary to RA without performing lung biopsy samples. A treatment with 48 mg of methylprednisolone (and 100 mg of azathioprine a few weeks later) was initiated.

Conclusions: OP is a common pulmonary complication that can develop in RA. Since OP is a non-specific inflammatory response to an aggression of the organism, could we consider that the pregnancy is a state of aggression capable of causing such a response?

PV909 / #196

EXUDATIVE ASCITES REVEALING FAMILIAL AND LATE ONSET SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: The systemic lupus erythematosus (SLE) is a chronic autoimmune disease, which generally affects young females. Its familial form is rarely reported. We describe a case of an exudative ascites revealing familial and late-onset SLE.

Methods: A 62-year-old patient with a history of pericarditis and

a right heart failure complicating. Pulmonary arterial hypertension (PAH) at 100 mmHg, presented with dyspnea. The patient has a 27-year-old daughter followed up with SLE. The examination revealed polypnea, signs of right heart failure, and important ascites without collateral venous circulation or fever. The Examination of the ascitic fluid revealed exudative-type ascites with 42 g/L of protein, 1030 of white elements 65% lymphocytes and 35% neutrophils; but no malignant cells. Cultures for bacteria and mycobacteria gave no growth with a negative PCR for tuberculosis. The patient had lymphopenia, thrombocytopenia, and a direct Coombs test positive for IgG 2 ++ with a proteinuria 1.04 g/24h. Immunological examination showed the presence of the anti-nuclear antibodies at a homogeneous titer of 1/3200 with the presence of native anti-DNA (1/800), anti-nucleosome, anti-ribosome, anti-SSA, and anti-histone. The diagnosis of SLE associated with Sjögren's syndrome were established and she had a bolus of methylprednisolone 1 g/day for 3 days then relayed by prednisone 1 mg/kg/day associated with hydroxychloroquine, Sildenafil and a calcium channel blocker for her PAH.

Results: The evolution was marked by the improvement of her respiratory state and her polyserositis.

Conclusions: Exudative ascites are rarely reported. This is a rare case of an exudative ascites revealing familial and late-onset SLE.

PV910 / #198

VASCULAR PURPURA IN RHEUMATOID ARTHRITIS: THINK ABOUT CRYOGLOBULINEMIA

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Background and Aims: Vascular purpura can be the manifestation of a wide spectrum of pathologies; which justifies a rigorous diagnostic process. We report the case of a vascular purpura with a particular etiological assessment.

Methods: A 61-year-old woman with a history of rheumatoid arthritis evolving for 15 years on corticosteroids and methotrexate, presented with extensive non-necrotic vascular purpura in both lower limbs without other particular signs on examination. Laboratory tests revealed a biological inflammatory syndrome with no other abnormalities. The DAS 28 score was 3.5 with an elevated rheumatoid factor level at 396 IU/ml. The allergic, toxic and infectious investigations were negative. The search for cryoglobuline was positive.

Results: The skin biopsy showed a histological appearance compatible with vasculitis, the dermis is the site of an inflammatory peri-vascular infiltrate made up of lymphocytes and plasma cells associated with a deposition of C3 in the perivascular area.

Conclusions: Cutaneous vasculitis in rheumatoid arthritis occurs after a long period of development and is associated with high levels of rheumatoid factor in the blood as shown here.

PV911 / #225

INFLAMMATORY PSEUDOTUMOR: ABOUT A RARE LOCALIZATION

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Background and Aims: Inflammatory pseudotumors are rare. They occur most likely in the lungs, the abdomen, the skin, the soft tissues, the genital system, and the mediastinal. Their localization in the head and the neck is rare. Their clinical and radiological presentation is variable. We report a case of mandibular localization with a particular clinical presentation.

Methods: A 35-year-old woman, with no pathological history, presented a mouth opening limitation to 8 mm evolving for 3 years. She also noted the recent installation (3 months) of a left eye ptosis and converging strabismus. The clinical examination revealed hypoesthesia of the left chin and infraorbital area, without any other abnormality. Laboratory tests revealed a biological inflammatory syndrome without rhabdomyolysis. The infectious investigations were all negative, as well as the immunological tests. On the facial CT scan, we noted active reshuffles in the left mandible ascending branch with a thickening of the ipsilateral pterygoid muscles and a thickening of the left temporal meningeal tissue. No collection was found. The cerebral-orbital MRI showed a clear enhancement of the pterygoid muscles and the left infra-temporal fossa, extending to the ipsilateral foramen ovale, which is enlarged, with enhancements of the meninges, the cavernous sinus, and Meckel's cavum.

Results: The lesions and adjacent tissues biopsy objectified the aspect of a myofibroblastic tumor. The patient received corticosteroid therapy resulting in marked clinical improvement. She will soon undergo a surgical intervention.

Conclusions: The clinical polymorphism of myofibroblastic pseudo-inflammatory tumors requires pathological proof for diagnosis and for therapeutic management.

PV912 / #229

IS VITAMIN D A GOOD PREDICTOR FOR DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS?

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Background and Aims: Rheumatoid arthritis (RA) is the most common inflammatory rheumatic disease that causes joint destruction. Many studies suggested an association between vitamin D 25 (OH) D and disease activity during RA. The aim of this study was to establish the eventual correlation between vitamin

D status in RA patients and to evaluate the relationship between serum vitamin D levels and disease activity in RA patients.

Methods: This prospective study included 65 patients with RA fulfilling ACR EULAR criteria 2010. The characteristics of the disease were transcribed including the sociodemographic data, the disease activity evaluated with Disease Activity Score 28 (the DAS28). Standard measure of CRP, calcium, phosphore, total phosphatase alkaline (ALP) as well as Vitamin D was performed the same day from Fasting blood samples. A low Vitamin D serum was defined by a level lower than 20 ng/ml (50 nmol/l). Patients were excluded if they had a previous history of systemic diseases or had taken drugs that affect bone metabolism, including.

Results: The study included 65 patients and 34 controls. Hypocalcemia and low ALP levels were more observed in RA patients ($p < 0.01$). Hypovitaminosis D was more frequent in RA ($p < 0.01$). The Vitamin D levels of patients with high disease activity were lower than those with moderate and LDA ($p < 0.01$). A significant inverse correlation was shown between serum 25(OH) D levels and DAS28 ($P < 0.05$).

Conclusions: Our Study showed that vitamin D is a good predictor for RA disease activity as hypovitaminosis D was correlated to high disease activity.

PV913 / #237

USE AND EFFICACY OF INTRAVENOUS IMMUNOGLOBULINS IN SCLEROMYOSITIS: ABOUT 2 CASES.

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Background and Aims: Scleromyositis is the most common of the overlapping syndromes associating systemic scleroderma and primary inflammatory myositis. The diagnosis is essentially clinical but the treatment is delicate considering the risk of renal crisis requiring recourse to intravenous immunoglobulins.

Methods: We report the cases of 2 patients who present with severe scleromyositis requiring immunoglobulins.

Results: *Observation 1:* 21-year-old patient, presented with a major proximal motor deficit of the belts and diffuse myalgia, Raynaud's syndrome, inflammatory polyarthralgia, incipient facial sclerosis, sclerodactyly and scarred cracks in the fingers. Paraclinically: inflammatory syndrome, CPK x25, LDH x15, antinuclear antibodies positive at 1/640 PMSCL+, RNP+, stage 3 capillaroscopic, the rest was negative. Considering the severity of the myogenic impairment and the associated scleroderma, the patient received ivig 2 g/kg/4 weeks + 15 mg corticosteroids + 2.5 mg/kg/d azathioprine with an excellent evolution. *Observation 2:* 37-year-old patient presented with severe dysphagia to solids, multiple false food ways, diffuse myalgia, belt deficit and advanced scleroderma with Gottron papules and lilac eyes edema. Paraclinic: biological inflammation, high cpk and ldh (x20), myogenic emg, AAB at 1/1280 of the PMSCL and U1RNP type. She received intravenous immunoglobulins + weak

corticosteroid therapy and immunosuppressant for maintenance, the evolution was favorable with disappearance of the severe dysphagia and deficit.

Conclusions: The difficulty in the face of scleromyositis lies in the search for signs of scleroderma, even minimal in the presence of a myositic symptomatology. High-dose corticosteroid therapy may precipitate a renal crisis whose the interest of intravenous immunoglobulins which are also indicated when signs of severity.

Dourmishev LA. Inflammatory myopathies with cutaneous involvement: from diagnosis to therapy. *Folia Medica* 2017. doi: 10.1515/folmed-2017-0003

PV915 / #280

REVIEW OF THE PREVALENCE OF ASSOCIATION BETWEEN SYSTEMIC LUPUS ERITHEMATOSUS AND ANTIPHOSPHOLIPID ANTIBODIES, AS WELL AS ITS CORRELATION WITH THROMBOSIS, IN A COHORT OF PATIENTS

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Background and Aims: Review the prevalence of association between Systemic Lupus Erythematosus (SLE) and Antiphospholipid Antibodies (AF), as well as its correlation with thrombosis, on a patient cohort from our Monographic Autoimmune Diseases outpatient clinic.

Methods: A patient's cohort which met the Sidney's criteria for Antiphospholipid Syndrome (APS) diagnosis was reviewed from December 15th, 2012 to July 1st, 2020. It was analyzed whether they met criteria for primary or secondary APS, cardiovascular risk factors, and thrombotic events.

Results: Out of a total of 36 APS patients, 12 met SLE criteria: one for paroxysmic postural orthostatic tachycardia syndrome (POTS), one for Sjogren's syndrome, and one for rheumatoid arthritis (RA). Median age was 40 years and the prevalence of cardiovascular risk factors was low, with 22.2% of hypertensive patients, 19.4% of patients with hypercholesterolemia, 11.1% of patients with diabetes, and obesity in 22.2%. As seen in the tables, the most prevalent AAF was the lupus anticoagulant, which contrasts with other series in which anti-2GP is most prevalent. Thrombotic events occurred in 24.7% of patients with secondary APS compared to those suffering from primary APS. Within the group of patients with thrombotic events, the prevalence was higher in patients with lupus anticoagulant.

Conclusions: Lupus anticoagulant is, in our series, the most prevalent AAF and the one with the greatest association to thrombotic events, both arterial and venous. Cardiovascular risk factors, while playing an important role in the development of thrombotic events by associated endothelial involvement, are not very prevalent in our series.

PV916 / #284

YOUNG WOMEN WITH TAKAYASU'S ARTERITIS. CLINICAL CASE REPORT

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Case Description: We present the case of a 25-year-old woman admitted after sudden holocranial headache, weakness in the left half of the body, deviation of the oral commissure and dysarthria.

Clinical Hypothesis: Given the suspicion of stroke, cerebral angio CT is performed, without occlusion of the great vessels or another pathological data. Intravenous fibrinolysis was decided with slight improvement in the speech disorder. Given the persistence of the neurological focus, a cerebral angioCT was repeated the next day, showing internal carotid dissection and inflammation of large-caliber arteries, suspecting a vasculitic dissection of the carotid, maybe due to Takayasu's disease.

Diagnostic Pathways: Searching for etiological diagnosis, inflammation of large-caliber arteries was observed. This data led us to make the main diagnostic suspicion of vasculitic carotid dissection.

Conclusion and Discussion: Both giant cell arteritis and Takayasu's arteritis cause granulomatous inflammation that can evolve into stenosis, occlusion and less often to formation of aneurysms in the damaged vessel. Both mainly affect the aorta and its main branches. They predominate in women, however in Takayasu's arteritis they are usually young (<40 years) and Asian and in the Giant Cell Arteritis predominate women of more advanced ages and Caucasian race.

PV917 / #307

REMITTING SERONEGATIVE SYMMETRICAL SYNOVITIS WITH PITTING EDEMA - A CHALLENGING DIAGNOSIS

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Background and Aims: Remitting Seronegative Symmetrical Synovitis with Pitting Edema (RS3PE) is a rare clinical entity that is easily missed. It is characterized by an acute onset of polyarthritis with pitting edema, elevated acute phase reactants, negative rheumatoid factor (RF), synovitis suggested by ultrasonography or magnetic resonance imaging, absence of joint erosions on radiographs and an exquisite response to low-dose steroids with a sustained long-term response.

Methods: We report a series of two cases that attended our clinic. First, a 68-year-old male patient, that presented with one-month bilateral pitting edema of the hands associated with multiple joint pain and morning stiffness. Articular ultrasonography showed chronic synovial inflammatory aspects with articular effusion of

both wrists and flexor tenosynovitis of left D2. *Second*, a 71-year-old male patient, that presented with 2 months of hand and wrist arthralgia with pitting edema of the hands and morning stiffness.

Results: Both patients showed on laboratorial tests no anemia but elevated acute phase reactants with negative RF and anti-CCP. Both responded well to 10 mg of prednisolone with remission a few months later and no recurrence since. The first patient presented one and a half years later with prostatic adenocarcinoma.

Conclusions: Most cases of RS3PE are idiopathic, but a paraneoplastic cause is suspected in some cases. An early prompt diagnosis is required, as proper treatment results in a dramatic relief to the patient, while misdiagnosis results in a more intensive and expensive therapy.

PV918 / #321

ASSOCIATION BETWEEN MEAN INTERLEUKIN-17 LEVELS, TRANSFORMING GROWTH FACTOR-B AND INTERLEUKIN-10 LEVELS WITH SYSTEMIC LUPUS ERYTHEMATOSUS DISEASE ACTIVITY

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Background and Aims: Systemic Lupus Erythematosus (SLE) is defined as a chronic-systemic autoimmune disease caused by genetic, environmental and tolerance dysregulation. Imbalance of Th17/T-regulator cytokine is thought to be involved in pathogenesis of SLE which can influence disease activity. This study was conducted to investigate mean difference of Interleukin-17, Transforming Growth Factor- β and Interleukin-10 with SLE disease activity.

Methods: This cross sectional study recruited 34 active and 34 inactive SLE patients based on MEX-SLEDAI and subjects were selected using consecutive sampling method. Blood samples were taken to measured IL-17, TGF- β , IL-10 using ELISA method. Data were analyzed with SPSS 20 software for Mac.

Results: Mean IL-17 serum was 19.67 (1.299) pg/ml in active SLE and 19,778 (1.187) pg/ml in inactive. Median TGF- β and IL-10 serum in active SLE were 180.67 pg/ml and 3.63 pg/ml, respectively, and inactive 169.6 pg/ml and 2.52 pg/ml, respectively. There were no significant mean differences in active and inactive IL-17, TGF- β and IL-10 SLE.

Conclusions: There were no significant mean differences of Th17/T-reg cytokines between active and inactive SLE patients. Further research with prospective study were required to investigate the role of Th17/T-reg cytokines in SLE.

PV919 / #328

FULL-FIELD OPTICAL COHERENCE TOMOGRAPHY, A NOVEL WAY TO THE DIAGNOSIS OF GIANT CELL ARTERITIS

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Background and Aims: Temporal artery biopsy (TAB) is the gold standard for the diagnosis of giant cell arteritis (GCA). Yet, it comes with several limitations that require a quicker pathological process with improved performance. For the first time, the present study report full-field optical coherence tomography (FF-OCT) for GCA diagnosis.

Methods: A total of 16 TABs were selected after conventional histological staining for acquisition with FF-OCT to quantify the structural modifications of the temporal artery cell wall for both negative (n=12) and positive (n=4) GCA patients. Gabor filtering was subsequently exploited to highlight TAB orientation maps and test a computer-based analysis of TAB sections.

Results: FF-OCT gave access to direct visualization of the temporal artery wall, notably essential structures such as the internal elastic lamina and vasa vasorum. Quantitative image analysis revealed a significant correlation with the data usually obtained following histopathological staining. Moreover, FF-OCT acquisitions of GCA TABs confirmed a complete destruction of the temporal artery wall with typical inner remodeling into a highly dense fibrous neo-intima. These lesions, highly suggestive of GCA, were also identified after automated Gabor filtering.

Conclusions: FF-OCT acquisition of TAB sections gave access to rapid identification of typical GCA histopathological remodeling. In addition, automated image analysis confirmed the potential recourse to machine learning for future on-site diagnosis of GCA.

PV921 / #360

A PRACTICAL APPROACH TO CUTANEOUS SMALL-VESEL VASCULITIS: DIAGNOSIS AND MANAGEMENT

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Background and Aims: Cutaneous small-vessel vasculitis (CSVV) can be the revealing symptom of several pathologies. We aim to determine the clinical, histopathological features, etiology and outcome of CSVV.

Methods: A retrospective monocentric study reviewing the medical records of all patients with CSVV, hospitalized between

1997 and 2020 in an internal medicine department.

Results: 28 patients were collected, 14 women and 14 men. The mean age was 49.7 years old [27-83 years]. Cutaneous lesions were generalized purpura in 20 patients. For the others, it involved only the lower extremities. It was associated with: arthralgia (n=17), digestive involvement (n=13), fever (n=11), glomerular nephropathy (n=10), peripheral neuropathy (n=3) and late-onset asthma (n=1). Skin biopsy showed leukocytoclastic vasculitis in 10 patients and IgA deposits in 5 patients. Henoch-Schönlein purpura was diagnosed in 7 patients. CSVV was associated with systemic lupus erythematosus (n=2), rheumatoid arthritis (n=1), sarcoidosis (n=1), primary Sjögren's syndrome and multiple myeloma (n=1). The other etiologies were: Drug-induced vasculitis (n=4), infectious (n=3) and cryoglobulinemia (n=3). CSVV was idiopathic in 9 patients. Corticosteroids (n=13) and colchicines (n=6) was prescribed. Worsening (extension and necrosis) of the lesions was reported in 2 patients. The outcome was favorable for the other patients. Cutaneous lesions resolved after 16 days at mean. Recurrence was noted in 4 patients.

Conclusions: CSVV was frequently idiopathic, followed by Henoch-Schönlein purpura. The prognosis was favorable with lower risk of relapse. A detailed evaluation of the patients is required to detect the underlying causes and systemic involvement.

PV921a / #1754

TAKAYASU'S ARTERITIS: A CAUSE OF ARTERIAL HYPERTENSION – CASE REPORT

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Case Description: Takayasu's arteritis is a rare type of vasculitis disease of large- and medium-sized arteries, involving the aorta and its main branches, pulmonary arteries, and the coronary tree, and leads to stenosis, occlusions, or aneurysmal degeneration of these large arteries. Takayasu's arteritis primarily affects young women and its etiology remains largely unknown. Clinical case: 44-year-old female patient with a history of hypertension, referenced to our hospital by severe hypertension on her right arm, significantly higher than that on the left one. The patient reports that at 18 year-old, during a routine examination at school, an asymmetry of the radial pulse was detected. Later at 30 year-old, referenced to a vascular surgery consultation at a university hospital for hypertension and decreased left radial pulse amplitude. Angiography was performed showing occlusion at the origin of the left subclavian artery, left primitive carotid artery with very small caliber and stenosis of the left external carotid at its origin.

Clinical Hypothesis: Despite aspects compatible with Takayasu's arteritis, the patient was discharged for hypertension consultation.

Diagnostic Pathways: After 14 years, the patient is referenced to an internal medicine consultation. Physical examination revealed a filiform left radial pulse and an arm-to-arm difference in blood pressure – right arm 201/69 mmHg and left arm 103/62 mmHg. CT angiography findings: left subclavian and axillary artery

occlusion; atheromatous changes from the abdominal aorta to the lower third of the abdominal segment.

Conclusions and Discussion: Diagnosis of Takayasu's arteritis is often delayed or even missed, so clinical suspicion and proper imaging are crucial for the diagnosis and management of patients.

PV922 / #370

CONCOMITANT STILL'S DISEASE WITH SPONDYLOARTHRITIS: A CASE REPORT

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Background and Aims: The simultaneous occurrence of Still and spondyloarthritis is rarely reported but possible in the same patient. 2 distinct diseases or 2 phenotypic aspects of the same pathology by physiopathological similarities?

Methods: We report the case of a patient presenting with a picture of Still's disease, clinical and laboratory, associated with spondyloarthritis.

Results: A 32-year-old patient presented with long-term fever, inflammatory polyarthralgia, oligoarthritis of the knees and right wrist, odynophagia and ephemeral macular rash on the trunk. He recently reported inflammatory low back pain, pygal pain, inflammatory costosternal pain and inflammatory talagia. Paraclinically: inflammatory syndrome, 3-digit crp, pnn hyperleukocytosis at 17,000, 5,399 ferritinemia, 11% glycosylated ferritin. Rheumatoid factor, citrullinated antipeptide antibodies, antinuclear antibodies, infectious investigation, search for neoplasia or lymphoma are negative. Bilateral sacroileitis has been found in MRI, examination ophthalmologist, gastro intestinal and dermatitis are normal. Still's diagnosis according to Yamaguchi/Fautrel criteria associated with spondyloarthritis according to ASAS criteria posed, he received bolus of corticosteroids relay oral corticoids + methotrexate with good progress.

Conclusions: The occurrence of general signs is usually insignificant during spondyloarthritis. Their presence should lead to a search for an associated Still disease that may precede, be concomitant or follow rheumatism. Spondyloarthritis is similar to autoinflammatory diseases and there is a common link around activation of the innate immune system.

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PV923 / #374

DIFFERENTIAL DIAGNOSIS OF DEEP VEIN THROMBOSIS: THE BAKER'S CYST COMPLICATIONS

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Background and Aims: Deep vein thrombosis (DVT) and Baker's cyst complications have similar clinical presentations. We aim to describe the clinical, radiological and evolutive aspects of complicated Baker's cyst.

Methods: A retrospective study of patients hospitalized from 1997 to 2020, for suspicion of DVT and whose diagnosis was rectified to a complicated Baker's cyst.

Results: Nine patients were included, 4 women and 5 men. The average age was 58 years old [35-82 years old]. One patient had a history of Baker's cyst. The mean symptom duration was 3 days [2-7 days]. The clinical signs were: positive Homans sign in 9 patients, edema in 8 patients, pain in 6 patients, a decrease in calf sloshing in 6 patients and knee pain in 5 patients. Knee arthritis was found in one patient. No patient had a fever. The mean sedimentation rate was 36 mm/hour and the mean C-reactive protein was 37 mg/l. Doppler ultrasound of the lower limb eliminated DVT in all patients. A ruptured Baker's cyst was found in 7 patients. A Baker's cyst compressing the popliteal vein was observed in 2 patients. Low-molecular-weight heparin was prescribed, initially, in 6 patients and stopped at diagnosis. Patients were treated with non-steroidal anti-inflammatory drugs (n=4), analgesics (n=7) and rest. The local evolution was good for all patients.

Conclusions: The DVT is difficult to distinguish by the clinical examination from the various complications of Baker's cysts, including rupture, direct neurovascular compression, and dissections.

PV924 / #380

SENSITIVE GANGLIONOPATHY - A DIAGNOSIS TO RECORD

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Background and Aims: Sensitive ganglionopathy is a nosological entity, characterized by reaching the dorsal root ganglion of the spinal nerves, accompanied by axonal degeneration. The main clinical manifestation is a change in proprioceptive sensitivity, resulting in gait ataxia. Sjögren's syndrome is the main autoimmune disease that causes sensitive ganglionopathy. Aim: To draw attention to the extra-glandular manifestations of Sjögren's syndrome.

Methods: A 78-year-old woman with arterial hypertension, dyslipidemia, type 2 diabetes mellitus and degenerative osteoarticular pathology. She has a sister with positive antineutrophil cytoplasmic antibodies vasculitis.

Results: She came to the emergency department with a month of evolution of paresthesias of the hands and feet, numbness of the feet and legs, gait changes with fall to the left side and feeling of lack of strength. She also referred xerophthalmia and xerostomia since years and skin changes compatible with livedo reticularis. Objectively, she presented a global decrease in proprioceptive reflexes and a positive to the left Romberg test. Electromyography confirms a sensitive ganglionopathy. The blood analysis showed a positive antinuclear antibodies, anti-SSA / Ro antibodies and anti-thyroglobulin antibody. The biopsy of the salivary glands was compatible with Sjögren's syndrome. The diagnosis of sensitive ganglionopathy by Sjögren's syndrome was assumed, having carried out a 5-day cycle of human immunoglobulin.

Conclusions: This case report depicts a rare extra-glandular manifestation in a patient with an inaugural diagnosis of Sjögren's syndrome, so we must not forget that sicca syndrome is not always the predominant manifestation of patients with Sjögren's syndrome.

PV925 / #390

A CROSS SECTIONAL REVIEW OF A DEDICATED BONE HEALTH SERVICE - MIDLANDS REGIONAL HOSPITAL TULLAMORE

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Background and Aims: Fragility fractures are a worldwide issue due to longer life expectancies. These international findings are echoed in the Irish healthcare settings with the absolute number of all fragility fractures increasing 30% between 2000 and 2014 with associated increase in bed days for osteoporotic fractures over the same time period (51%). These figures prompted the introduction of a dedicated bone health service in the Midlands Regional Hospital which is the regional centre for orthopaedic care. This service started a bone health clinic reviewing both hospital and community referrals.

Methods: We performed a cross sectional review of our dedicated bone health service from 2019. We assessed the baseline characteristics of 100 consecutive patients.

Results: 94% were female, with only 6% male. 24% had a secondary cause of their osteoporosis including - renal failure, coeliacs disease, early menopause, prolonged steroid use and malignancy. 33% had a history of fragility fractures in the past and 30% of these patients had their treatment optimised on review. There had been previously delays in accessing DEXA scans the gold standard for bone mineral density assessment. This clinic has the ability to utilize bone turnover markers, locally processed in order to expedite instigation of appropriate management.

Conclusions: Targeting this vulnerable osteoporotic group has the potential to improve patient outcomes, prevent fractures and save on healthcare costs. This cross sectional review assessed the typical baseline referrals in our centre, we hope to expand the service to capture more at risk patients.

PV931 / #441

THE RISK OF INFECTION IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: Patients with systemic lupus erythematosus (SLE) seem to have an increased risk for infections. We aim to determine the frequency and predictors of infections during SLE.

Methods: A retrospective study including patients diagnosed with SLE according to ACR1997 criteria from 2003 to 2017, and followed in a rheumatology department.

Results: Among the sixty patients collected, 31 (50.8%) had at least one infectious episode. The mean age was 37.7±12.8 years old. These were 27 women and 4 men. The median duration of SLE was 1 year [0-18 years]. The median number of infections per person was 1 [1-7]. Bacterial infections were observed in 22 patients. They were dominated by urinary tract infections (8 patients), skin infections (6 patients) and pneumonia (5 patients). One patient had pulmonary tuberculosis. The Upper airway infections were found in 4 patients. Febrile neutropenia had occurred in one patient. Herpes zoster (7 patients) was the most common viral infection (9 patients). The candidiasis (4 patients) was the most frequent fungal infection (6 patients). A frontotemporal abscess revealed a neuromeningeal cryptococcosis. No deaths were reported. The occurrence of infection during SLE was associated with ocular involvement of SLE (18 vs 13 patients; $p=0.02$). A high dose of corticosteroids was found in 20 patients versus 8 patients ($p=0.08$). No other factors were associated with the risk of infection.

Conclusions: Infections during SLE occurred in half of the patients. The infections were varied and serious. Urinary tract infections and herpes zoster were the most common.

PV933 / #470

AURICULAR IMPEDANCE IN THE DIAGNOSIS OF LOW BACK PAIN

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Background and Aims: According to the traditional Chinese medicine, the areas of the auricle where electrical skin resistance is decreased correspond to specific areas of the body where some pathological conditions exist. The aim of this study was to assess the electrical conductivity corresponding to the specific area of the lumbar spine, in patients suffering from low back pain (LBP), compared to controls.

Methods: We conducted a prospective study including 30 patients suffering from and 30 controls. Electrical conductivity in the lumbar spine area was measured in both groups. Pain

intensity and functional impact were assessed by the visual analogue scale of pain (VAS) and a disability rating scale of LBP (EIFEL index).

Results: The mean age in both groups was 55.9±13.4 and 50.5±13.7 years respectively. The sex ratio was 1 in the patient group. Electrical skin resistance was significantly decreased in the specific area of the lumbar spine in the patients group compared to controls (80% vs 36.1%, $p < 0.001$). A higher EIFEL index was more frequent in patients with higher skin conductivity. However, no correlation was found between neither age nor the VAS ($p > 0.05$). Similarly, the duration of LBP was not associated with higher skin conductivity.

Conclusions: This study showed that patients suffering from LBP had a decreased electrical resistance in the specific area of the lumbar spine. Further studies are needed in order to emphasize the diagnostic value of electrical skin resistance measurement in LBP.

PV934 / #476

SYMMETRIC PERIPHERAL POLYARTHRITIS - AN UNCOMMON FORM OF PRESENTATION OF HEMOCHROMATOSIS

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Introduction: Hemochromatosis is a disorder of iron metabolism, where increased intestinal absorption causes tissue accumulation of iron and progressive organ dysfunction. Being the most prevalent genetic disease, it manifests itself in various ways, namely cirrhosis and dilated cardiomyopathy. Arthritis, a common manifestation, is rarely a form of initial presentation. The authors present a case of Peripheral Polyarthrititis which allowed for the diagnosis of Hemochromatosis.

Case Description: 60-year-old male, mechanic, with a history of dyslipidemia and a sibling with non-specific polyarthrititis. Presents with fatigue, generalized joint pain mainly his metacarpophalangeal joints (MCP) and proximal interphalangeal joints (IP) associated with morning stiffness and inflammatory rhythm for the past year. Physical exam showed mild synovitis with arthritis of his MCP, proximal and distal IP joints bilaterally. Sedimentation rate, autoimmune and serological work-up was normal, with no radiological findings. Elevated ferritin levels (823 ng/ml) associated with 46% transferrin saturation motivated a hemochromatosis genetic test, revealing heterozygous C282Y/H63D variation of the HFE gene. Hepatic MRI showed a normal sized liver with increased concentration level of iron (129 $\mu\text{mol/gr}$).

Results: He was started on serial phlebotomy, which led to progressive ferritin decrease, notable symptom improvement and arthritis resolution.

Discussion: Timely diagnosis of Hemochromatosis is crucial as this systemic disease caused by tissue iron deposition can lead

to significant organ dysfunction. This case alerts us to arthritis as a possible form of presentation and the importance of keeping Hemochromatosis in mind when diagnosing patients with similar complaints.

Uptodate; Identifying and managing hemochromatosis arthropathy – *Rheumatology Network* 2019

PV935 / #479

TAKAYASU – CROHN'S DISEASE IN A 24-YEAR-OLD MALE

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Background and Aims: Takayasu arteritis is an uncommon chronic large-vessels vasculitis (reported incidence in Europe varying from 0.4 to 1.5 per million) of unknown etiology that affects primarily the aorta and its primary branches. Female predominance is characteristic and although it has a worldwide distribution, the greatest prevalence is in Asia. This disease is rarely associated with Crohn's disease.

Methods: A 24-year-old male patient, caucasian, previously healthy, complaining of post-prandial abdominal pain and vomiting, lightheadness, headaches and cervical pain for 2 months, was hospitalized at the Internal Medicine Department in a Portugal's tertiary hospital. He also experienced constitutional symptoms, such as weight loss and fatigue. No alterations were found in physical examination: normal blood pressure in all extremities; no bruits were listened, and all pulses were full.

Results: Laboratory abnormalities were nonspecific. He had high erythrocyte sedimentation rate and C-reactive protein, normochromic normocytic anemia, thrombocytosis, positive ASCA IgG and high fecal calprotectin. Neck ultrasound showed vessel wall thickening in common carotids. CT angiography demonstrated "thickening of the carotids wall and descending thoracic aorta, suggesting vasculitis". PET-FDG demonstrated alterations for active large -vessels vasculitis in common carotids and cross aorta. Colonoscopy had no macroscopic lesions. Despite treatment with high-dose corticosteroids and azathioprine, endoscopic capsule revealed: multiple erosions in small intestine and ulcerated stenosis, confirming Crohn's disease.

Conclusions: This is a report of a Caucasian young male with the unusual simultaneous diagnosis of Crohn's disease. Because of Takayasu indolent course, early diagnosis of vascular lesions in Crohn patients should be encouraged to allow an earlier treatment.

PV936 / #486

PREGNANCY ASSOCIATED OSTEOPOROSIS IN A YOUNG ADULT : A CASE STUDY

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Background and Aims: Pregnancy associated osteoporosis is a rare syndrome affecting women during late pregnancy and early postpartum period. The exact underlining mechanisms of this disorder are still unknown. Here by, we describe a case of a pregnancy associated osteoporosis.

Methods: Data was obtained from a retrospective review of the record. Were included sociodemographic characteristics as well as body mass index, available haematological indices. Bone mineral density (BMD) was measured using dual energy X-ray absorptiometry (DXA). Treatment modalities were also noted.

Results: A 23-year-old female, presented with lower back pain 6 months after delivery, evolving since the third trimester of pregnancy. She was primiparous and had no specific medical history. Physical examination revealed lumbar kyphoscoliosis. The neurological examination was normal. Radiographs of the spine revealed multiple vertebral fractures at L3, L4, L5 and possibly L1. A DXA scan showed Z-scores of - 3.2 at the lumbar spine and - 1.8 at the femoral neck. There was no history of prior fractures or corticosteroid use. Blood tests revealed a normal calcium, phosphate and serum electrophoresis. Other secondary causes of osteoporosis were excluded. The patient commenced Risedronate, with calcium and vitamin D supplementation. Major improvement was noted. Risedronate was subsequently stopped as the patient wished to have more children.

Conclusions: Women who present with back pain in late pregnancy or the post-partum period should always be evaluated for pregnancy-related osteoporosis. The use of bisphosphonates needs to be carefully considered, balancing the benefits of preventing subsequent fractures against the potential risks of side effects for future pregnancies.

PV937 / #487

PANORAMA OF AUTOIMMUNE AND AUTOINFLAMMATORY DISEASES IN INTERNAL MEDICINE AT THE UNIVERSITY HOSPITAL CENTER OF THE POINT G

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Background and Aims: Panoramic study of autoimmune and autoinflammatory diseases remains very little carried out in Africa and particularly in Mali. We aimed to describe epidemiological and clinical aspects of all autoimmune and autoinflammatory diseases in the department of internal medicine at the University Hospital Center of the Point G.

Methods: We retrospectively analyzed data from patients hospitalized for autoimmune and/or autoinflammatory disease between 2005 and 2019.

Results: Of 6,383 patients hospitalized from 2005 - 2019, 317 patients (64.98% female) presented an autoimmune and/or autoinflammatory disease, of which 07 cases of associations which is a total of 331 cases of autoimmunes disease and autoinflammatory disease (5.19%). Autoimmune diseases were noted in 291 patients (221 cases of organ-specific autoimmune diseases and 70 cases of systemic autoimmune diseases) and autoinflammatory diseases were recorded in 40 patients (0 cases of monogenic forms, 08 cases of "systemic" polygenic forms and 32 cases of "organ-specific" polygenic forms). The organ-specific autoimmune diseases were dominated by type 1 diabete (141 cases), Graves' disease (48 cases) and the systemic autoimmune diseases by lupus erythematosus (46 cases), rheumatoid arthritis (18 cases). Among the auto-inflammatory diseases, the "systemic" polygenic forms were dominated by Horton's disease (02 cases) and the "organ-specific" polygenic forms by gout (16 cases), ulcerative colitis (08 cases).

Conclusions: Autoimmune and autoinflammatory diseases are characterized in internal medicine by their frequent occurrence in women and preferably between the ages of 25 and 44 and their disparate distribution.

PV938 / #511

SCALP NECROSIS AND BILATERAL BLINDNESS IN GIANT CELL ARTERITIS: A CASE REPORT

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Background and Aims: Polymyalgia rheumatica is the commonest inflammatory rheumatic disorder affecting older people. The classical history consists of profound pain and stiffness affecting the neck, shoulder and hip areas. Giant cell arteritis (GCA) can be associated from the onset or develop later.

Methods: We report a severe case of GCA with a misleading clinical presentation.

Results: An 81-year-old patient followed for 4 months for inflammatory arthralgia of the hip area treated with Prednisone 40 mg per day and diclofenac 75 mg per day. He had headaches with a rapid but reversible loss of vision at the right side that became bilateral within 5 days, associated with jaw claudication. The patient consulted when a necrosis lesion of the scalp appeared with bilateral blindness. The physical examination found tender and non-pulsatile temporal arteries, hyperesthesia of the scalp with a 4 cm necrotic lesion. The ophthalmologic examination showed optic atrophy. He had a biological inflammatory syndrome. The diagnosis of ACG complicated by bilateral blindness and scalp necrosis was retained. A bolus of methylprednisolone at 1000 mg/day was attempted for 3 days with strict monitoring. The patient recovered a left light perception. A relay of corticosteroids at 0.7 mg/kg/day was started.

Conclusions: Bilateral blindness and scalp necrosis occur in 1-2% of patients during ACG. However, these complications like others are most often brutal and irreversible which makes it so serious. ACG is therefore a diagnostic and therapeutic emergency. In the presence of even atypical clinical signs, corticosteroid therapy should be started without waiting for a biopsy of the temporal artery.

PV939 / #562

A CHALLENGING REMISSION CASE OF THROMBOTIC THROMBOCYTOPENIC PURPURA

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Background and Aims: Acquired Thrombotic Thrombocytopenic Purpura (TTP) is an autoimmune disorder characterized by a severe deficiency of the von-Willebrand factor-cleaving protease (ADAMST13). It's a medical emergency and plasmapheresis must be initiated immediately. Refractory disease is relatively common and alternative therapies should be considered.

Methods: We describe 45-year-old women admitted to the emergency department with transient weakness of the left arm and dysarthria. She referred fatigue, dizziness and bruises throughout the body within the past two weeks and rectal bleeding in the past two months. In the first day of admission, she progresses to confusion, seizures and coma being admitted to ICU. Blood tests were compatible with microangiopathic hemolytic anaemia and severe thrombocytopenia. Peripheral blood smear showed schizocytes. Coombs test negative, coagulation test and kidney function were normal. A presumptive diagnosis of TTP was assumed and the patient was started on corticosteroids and plasmapheresis.

Results: The persistence of seizures and a deficient haematological recovery led to consider rituximab. The diagnosis was ultimately confirmed by a severe deficiency of ADAMTS13 activity and detection of ADAMTS13 antibody. After 15 days since the beginning of rituximab, she evolved to a favorable neurological and haematological outcome, being discharged one month later. She maintains day-care unit follow-up, recovering from ADAMTS13 activity and maintaining rituximab.

Conclusions: This case report emphasizes the importance of a high clinical suspicion since early initiation of treatment is of the utmost importance and it shouldn't be delayed by confirmatory results. In addition, distinct immunosuppression should be considered in refractory disease that we regard as a valuable option.

PV941 / #753

PERNICIOUS ANEMIA – DISTINCT MANIFESTATIONS, BUT SIMILAR TO EACH OTHER

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Background and Aims: Pernicious anemia (PA) is an autoimmune disease due to inhibition of vitamin B12 (VitB12) absorption by autoantibodies. We hereby describe 2 clinical cases, both female without relevant background.

Methods: First, a 68-year-old patient had gone to the emergency department (ED) due to lipothymia, dyspnea, exertion thoracalgia, headaches and weight-loss 40 Kg in 4 months. Hemodynamically stable. Lab values: Hb 5.7 g/dL, macrocytic, reticulocyte index 1.68%, LDH 2874 U/L, total bilirubin (TB) 1.24 and conjugated bilirubin (CB) 0.54 mg/dL, negative (-) Coombs and blood-smear without alterations. She received 2 units of red blood cells (RBC) without end benefit and was admitted for further investigation. She received another 2RBC, this time with Hb increase. We observed a transferrin saturation (satTra) 58%, VitB12 52.7 pg/mL, folic-acid 8.61 ng/mL, positive (+) anti-intrinsic factor (IFab) and - anti-parietal cells (PCab) antibodies, -methyl-malonic-acid and homocysteine, and atrophic chronic gastritis on endoscopy. She was discharged with VitB12 supplementation and normalization after 1 month. The second patient, 40-year-old, went to the ED due to anorexia, epigastralgia, asthenia and weight-loss 5 Kg. Presented tachycardia and fever (38°C). Lab values: Hb 5.7 g/dL, macrocytic, reticulocyte index 0.64%, LDH 5982 U/L, TB 1.27 and CB 0.46 mg/dL, Coombs-, blood-smear with anisochromia, anisocytosis, poikilocytosis, macrocytosis and hypersegmented neutrophils. During hospital stay, she received 2RBC with good response, but maintained fever of unknown source. It was observed satTra60%, VitB12 <50pg/mL, folic-acid 3.76 ng/mL, +IFab and PCab and -homocysteine. Atrophic chronic gastritis on endoscopy. Supplemented with folic-acid and VitB12 and normalization after 1 month.

Results: These cases showed acquired PA without identified etiology.

Conclusions: The manifestations and analytical alterations were distinct, and fever might be a possible sign of severity of PA that cannot be excluded only because of PCab negativity.

PV942 / #797

IGA VASCULITIS: A CASE REPORT

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Case Description: A 34-year-old man complaining of epigastric pain and nausea was initially admitted in the surgery ward due to ulcerative erosive duodenitis (a duodenal biopsy was made). He was then discharged while awaiting the rest of the study. Given that he kept the symptoms and due to the appearance of a petechial rash of the lower limbs, he went to the emergency department again.

Clinical Hypothesis: IgA vasculitis/Henoch Schonlein's purpura (HSP) is immune-mediated, of unknown cause, self-limited, characterized by palpable purpura (without thrombocytopenia/coagulopathy), arthralgia/arthritis, abdominal pain and/or kidney disease. It is the most common form of systemic vasculitis in childhood and it affects adults in 10% of cases.

Diagnostic Pathways: He was observed by internal medicine physicians and the following study was carried out: normal hemoglobin, platelets, renal function, urinalysis, sedimentation rate and C reactive protein; mild IgA deficit, negative viral serologies and a skin biopsy showing leukocytoclastic vasculitis with IgA deposits.

Conclusion and Discussion: The diagnosis of HSP was made. Clinical resolution was observed after corticotherapy was initiated. Abdominal pain is the characteristic symptom of HSP that is less common at presentation. The fact that HSP is rare in adults and in this case, abdominal pain preceded the skin lesions delayed the diagnosis, as it could be an inflammatory bowel disease. The severe and refractory pain to NSAIDs determined the need for hospitalization. The prognosis is favorable due to the absence of renal impairment.

PV943 / #842

EXAMINATION OF 19 CANCELLATION POSSIBILITY EXAMPLES OF 35 MTX COMBINATION EXAMPLES IN 54 RA PATIENTS TREATED WITH TOFACITINIB IN OUR HOSPITAL FOR 3 YEARS

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Background and Aims: As we experienced combination cancellation examples of MTX in continuation examples at our hospital for 54 rheumatoid arthritis patients treated with tofacitinib for 3 years, I report backgrounds and the progresses of the cases.

Methods: The MTX combination example was 35 at dosage start time during 54 continuation examples for rheumatoid arthritis patients treated with tofacitinib for 3 years at our hospital, and 31 cases of those were MTX weight loss possibility examples, and 19 were MTX cancellation examples. The average of the disease duration and age for the 19 patients treated with tofacitinib that canceled MTX was 8.2 years and 63.8 years old. The change example from biological preparation (following BIO) is ten. The number of patients that treated with BIO before treatment with tofacitinib is an average of two drugs. The quantity of mean combination of MTX is 6.5 mg/week. Mean DAS28ESR at the time of the dosage start of tofacitinib: 4.6, mean DAS28CRP: 4.2. Mean eGFRcys: it was 76.9 mL/min/1.73 m², mean KL-6:245.6U/mL.

Results: The change (start/dosage three years later) of the disease activity after the TOF dosage of 19 MTX cancellation examples is DAS28ESR: It was good with 4.6/2.5. The reason of the MTX cancellation was gastrointestinal dysfunction, hepatic dysfunction such as stomatitis, a decrease in number of the lymphocytes, stroma-related pneumonia in good others in progress.

Conclusions: In this examination, maintenance of the effectiveness was able to experience a possible example after the cancellation of combination MTX of tofacitinib for rheumatoid arthritis patients for a long term.

PV944 / #900

DOUBLE CONTOUR SIGN (DC) IN PSOUT (PSORIASIS & GOUT) – WHEN IN DOUBT ABOUT GOUT: PROSPECTIVE OBSERVATIONAL STUDY FROM SOUTH INDIA

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Background and Aims: Gout & psoriasis share many features like epidemiological, risk factors & comorbidities. Many patients with Psoriasis and arthritis are labeled as Psoriatic arthritis. We are presenting a series of 10 cases who had Psoriasis which did not fulfill the CASPAR criteria who were diagnosed as Gout by DC sign.

Methods: Patients with Psoriasis who attended the Rheumatology OPD, Sri Ramachandra Medical college Chennai from 01/01/2019 to 31/12/2019 were selected. Study Design: Prospective Observational study Inclusion criteria: Evidence of Psoriasis (Past/Clinical/Family) with Chronic arthritis (>3months) who had either Hyperuricemia (S. Uric acid >6.8) or BMI >25. Exclusion criteria: Other arthritides.

Methods: Ultrasonography with color doppler of the affected joints was done. The DC sign in ultrasonography was compared with gout. Hyperuricemia and DC sign in patients were compared by Chi square test.

Results: 105/2615 (4%) of the patients had psoriasis. Mean age was 49.4 with male is to female ratio being 1.5:1. 75/105 fulfilled

the CASPAR criteria. 12/17 had USG findings of gout. 10/17, 2/17, 6/17 & 1/17 had DC sign, tophi, erosions & snowstorm appearance, respectively. 2/12 with negative DC sign had gouty erosions. 8/12 had serum uric acid >6.8. p value by comparing hyperuricemia with DC by Chi square test was 0.27.

Conclusions: 1. Psoriasis and gout can coexist, mimicking each other, causing dilemma for physicians. 2. DC sign is a very efficient noninvasive method in diagnosing gout in early Psoriatic patients. 3. There is no significant association between DC sign and serum uric acid levels.

PV945 / #927

ULCERATIVE STOMATITIS AS AN ELUSIVE PRESENTATION OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: A 57-year-old male patient was initially evaluated by his primary care physician for general weakness and fatigue and episodic development of oral ulcers. Laboratory work was performed, eventually revealing a normochromic/normocytic anemia. Two months later, multiple ulcerated oral lesions developed, leading to severe odynophagia and anorexia.

Clinical Hypothesis: A presumptive diagnosis of “stomatitis secondary to Mycoplasma pneumoniae infection” was made, following a M. pneumoniae positive IgM serology, with no bacterial growth in blood cultures. He started on levofloxacin, presenting partial clinical response.

Diagnostic Pathways: Over the next month, general weakness aggravated, ulcerated oral lesions recurred with episodic fever, along with odynophagia and he was admitted in the Internal Medicine department. Oral cavity examination revealed numerous ulcerated lesions and hematologic evaluation disclosed pancytopenia. Additional blood tests revealed positive ANA and positive sera for anti-double-stranded DNA antibody, anti-histone H3 and anti-SSA52 antibodies. Altogether, clinical and immunologic findings allowed a final diagnosis of LES to be firm.

Conclusion and Discussion: The patient received treatment with prednisolone, topical analgesia along with hydroxychloroquine, showing rapid remission of symptoms and recovery of peripheral cell counts. Only rarely oral ulcers have been reported as presenting symptoms of lupus, and the frequency with which SLE presents with oral ulcers remains obscure. This case emphasizes how despite the fact that different mucocutaneous lesions encompass common manifestations of lupus, oral lesions may be often missed or attributed to alternative etiologies, but must be considered as a possible SLE inaugural presentation.

PV946 / #931

LUPUS ENTERITIS, AN UNCOMMON MANIFESTATION OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: A 47-year-old Indian female with no significant medical history arrived at the emergency department with 15 days of epigastric/abdominal pain and vomiting. On physical examination, she was tachycardic and the abdomen was diffusely tender.

Clinical Hypothesis: Laboratory tests revealed microcytic anemia (hemoglobin of 8.6 g/dL) and acute kidney injury with hematuria (+++). Abdominal CT-scan revealed diffuse edema and thickening of the small bowel and colon wall with mild ascites and pleural effusion. An upper endoscopy detected esophagitis, colonoscopy showed areas of swollen mucosa and hyperemia and biopsies were negative for ischemia.

Diagnostic Pathways: After exclusion of infectious and obstructive pathology, immunologic study detected positive antinuclear antibody titer of 1:1280, low complement levels, positive serology for anti-DsDNA and positive direct Coombs test. Admitted systemic lupus erythematosus (SLE) with lupus enteritis (LE), she started IV pulses of methylprednisolone and Euro-Lupus IV cyclophosphamide protocol. She developed acute neurological deficits with signs of severe vasculitis on MRI and multiple infectious complications. Despite all measures (immunosuppressive agents, anticoagulation and antibiotics), she had a brainstem stroke with unfavorable evolution and died.

Conclusion and Discussion: LE is a rare and poorly understood cause of abdominal pain in patients with SLE and the clinical picture is often nonspecific. The pathology is thought to be immune-complex deposition and complement activation, with subsequent submucosal edema. It is seldom confirmed on histology, making CT the gold standard for diagnosis. There is weak evidence about therapy due to the rarity of this manifestation, although a good response to steroid has been described, which was not seen in this case.

PV947 / #937

METASTATIC LUNG CARCINOMA PRESENTING AS BACK PAIN: A CASE REPORT

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Background and Aims: Low back pain (LBP) is a very common symptom and many different diseases may present to the clinic with LBP. Rarely, it may be the first complaint of cancer. Here, we

describe the case of a previously healthy man presenting LBP who was subsequently diagnosed metastatic lung cancer.

Methods: 46 year old male presented to our clinic with 4 months history of LBP. The pain was mechanical at first, but lately it has been continuous. He had also complaints of bilateral flank pain, morning stiffness, weakness and cough rarely. He did not smoke. His back pain was responding to NSAIDs. He had weakness lately, but did not have weight loss or fever. Six months ago, the patient had a feeling of chest tightness. He presented to cardiology. Pulmonary CT angiography was performed and it was reported normal.

Results: His physical examination was unremarkable. There was no evidence of synovitis or enthesopathy. Lumbar range of motion was normal. In the laboratory, ESR 53 was mm/h and CRP was 21.4 mg/L. Other tests were normal. Sacroiliac X-ray was nonspecific. Chest X-ray revealed bilateral hilar fullness. Thorax CT revealed a mass lesion in the right lung upper lobe compatible with carcinoma (primarily in favor of adenocarcinoma). Sacroiliac MRI demonstrated multiple metastatic nodular and infiltrative lesions in the sacral area on the right.

Conclusions: In low back pain cases that respond to NSAIDs and are accompanied by an acute phase elevation, malignancy should be investigated in addition to spondyloarthritis

PV948 / #977

RAYNAUD'S APPROACH

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Case Description: A 54-year-old woman presented with a 2-week history of transient episodes of pallor, cyanosis and pain of the second and third left fingers, as well as ulcers in the same location. She had known history of ischemic stroke, hypertension, obesity and depression. On the examination cyanosis was confirmed, with decreased skin temperature, distal ulcers, normal radial pulse and without skin thickening.

Clinical Hypothesis: Raynaud phenomenon (RP), probably secondary to a connective tissue disorder, paraneoplastic syndrome, cryoglobulinemia or peripheral artery disease.

Diagnostic Pathways: Laboratory results showed positive antinuclear antibody (1/1280), as well as positive anti-Ro/SSA and anti-La/SSB antigen-antibodies, without other abnormalities. Nailfold capillaroscopy suggested a non-scleroderma pattern and salivary gland scintigraphy was a grade 3. Thoracic, abdominal and pelvic computerized tomography, endoscopy and colonoscopy, mammography and breast ultrasound were normal. We admitted a severe secondary RP probably in association with primary Sjögren's syndrome. The patient referred mild xerostomia. Therapy with lloprost was started with progressive improvement visible in the images. Posteriorly, sildenafil was used as maintenance therapy.

Conclusion and Discussion: Secondary RP is commonly asymmetrically and associated with finger's necrosis and ulcers, more



#977 Figure: A: two days prior to the beginning of Iloprost; B and C: first day of therapy with Iloprost; D: after five days of therapy with Iloprost.

common in older patients. The study of the cause is relevant to the management and it is also important to identify manifestations of severe disease so that specific and intensive therapies, as prostacyclin analogue iloprost, can be instituted to improve prognosis.

PV949 / #979

AN UNUSUAL PRESENTATION OF AN INFLAMMATORY MYOPATHY - A RARE CASE DESCRIPTION IN THE ELDERLY

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Case Description: This case is based on 81-year-old female patient was admitted due to decreased mobility, pain and functional incapacity of the upper limbs, lasting two months. Past medical history of asthma, obstructive sleep apnea, obesity, arterial hypertension, dyslipidemia and heart failure. Physical examination revealed poikiloderma in a photosensitive distribution, shoulder pain with movement and a decreased active range of motion, and also proximal muscle weakness.

Clinical Hypothesis: The diagnosis of polymyalgia rheumatica (PMR) and dermatomyositis (DM) were considered.

Diagnostic Pathways: Blood tests showed mild leukocytosis, anemia, an elevated CK (2130 U/L) and LDH (621 U/L), 7 and 3 times the upper limit respectively; the c-reactive protein was normal. The immunological panel revealed a positive ANA (1/1280) in a granular pattern and a positive anti-myosin2. Skin and muscle biopsy were compatible with the diagnosis of DM. Even though symptoms included pain of the shoulder girdle and

inability to raise the arms above shoulder height, muscle weakness is not a feature of PMR. Complementary studies supported the diagnosis of DM and treatment with prednisolone 1 mg/kg/day was started.

Conclusions: Dermatomyositis (DM) is rare inflammatory myopathy that commonly presents with progressive, symmetric, proximal muscle weakness and characteristic cutaneous findings. Myopathy may occur at any time from infancy through approximately age 80, but most commonly it occurs between ages 40 to 60. The diagnosis of this entity is complex and involves a set of clinical, analytical and anatomopathological findings. Its recognition in the elderly population is particularly challenging and implies the exclusion of underlying neoplastic disease - both solid and hematological malignancies.

PV950 / #1018

HIP ARTHRITIS AND AVASCULAR NECROSIS FOLLOWING SEVERE COVID PNEUMONIA

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Background and Aims: COVID-19 infection has variable clinical presentations, severity and multi-system involvement. Arthralgia may be of the presenting symptoms in 15% of patients. Reactive arthritis is an emerging musculoskeletal manifestation post COVID-19 infection. We report the first case of post-COVID-19 reactive arthritis with hip arthritis, and avascular necrosis (AVN).

Methods: A 29 year old man, previously healthy athlete presented in June 2020 with respiratory failure due to severe COVID-19 pneumonia requiring mechanical ventilation. After 8 weeks of hospital admission, his clinical status improved and he was discharged home. After 2 months, he presented with a 2-day history of fever, shortness of breath, worsening productive cough and severe left hip pain with limited mobility. He had acute bronchitis with residual post COVID-19 lung changes.

Results: The MRI revealed acute left hip arthritis and effusion with AVN involving both femoral heads and proximal tibias. Synovial fluid analysis showed WBC 45,500 cells/mm³, neutrophil predominant, no crystals and culture was negative. HLA-B27 was positive. Other autoimmune workups and infectious etiologies were unremarkable. He received oral antibiotic for 5 days for bronchitis and Naproxen for reactive arthritis.

Conclusions: There are limited case reports suggesting association between COVID-19 infection and reactive arthritis predominantly affecting the knee and ankle. It is likely that AVN might be a side effect of steroids used in our patient during ICU care for severe COVID-19 pneumonia, but COVID-19 infection may be a contributing factor which has never been reported before. HLA B27 testing might indicate severe and delayed form of arthritis.

PV951 / #1027

SJÖGREN'S SYNDROME AND PRIMARY HYPOPARATHYROIDISM - A RARE ASSOCIATION

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Case Description: A 27-year-old Guinean woman presented to the hospital with severe abdominal pain, associated with headache, fatigue, depression, and dry eyes, with an insidious but progressive onset. The patient reported a history of psoriasis and anemia. The physical examination revealed xeroderma, alopecia, and abraded, carious teeth. Standard bloodwork revealed hypocalcemia (ionized calcium 0.50 mmol/L), normocytic anemia (Hb 8.4 g/dL), and kidney injury of unknown onset (GFR 39 mL/min/1.73 m²).

Clinical Hypothesis: Various diagnostic hypothesis were considered while studying the hypocalcemia, anemia and kidney injury, such as hypoparathyroidism, vitamin D deficit, chronic kidney disease, and various autoimmune disorders.

Diagnostic Pathways: Further study revealed nearly absent parathormone (PTH) levels and hyperphosphatemia, which supported the diagnosis of primary hypoparathyroidism. Additionally, strongly positive anti-SSA and anti-SSB antibodies were identified, with a positive Schirmer test. These findings, together with symptoms suggestive of sicca syndrome such as dry eyes complaints and abraded carious teeth, therefore established the diagnosis of Sjögren's Syndrome. Renal ultrasound revealed loss of parenchymal differentiation compatible with chronic kidney disease, and biopsy revealed acute tubulointerstitial nephritis, likely secondary to Sjögren's syndrome.

Conclusion and Discussion: Primary hypoparathyroidism is a condition characterized by hypocalcemia, low PTH levels, and hyperphosphatemia, caused by surgery, genetic abnormality or rarely, autoimmune disease. We herein report a rare association of primary hypoparathyroidism with Sjögren's syndrome. In this case, we underline the importance of testing for autoimmune diseases in the setting of primary hypoparathyroidism, of particular importance in the absence of other known causes, such as was the case with this patient.

PV952 / #1047

IMMUNE THROMBOCYTOPENIC PURPURA: A THERAPEUTIC CHALLENGE

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Case Description: Woman of 62 years with history of breast cancer in remission was admitted in June 2019 for acute hemorrhagic stroke with a mild thrombocytopenia (142,000 platelets). She was evaluated in the emergency department after 1 month due to orthostatic hypotension and at that time she had 82,000

platelets. In November 2019 she was hospitalized for aggravated thrombocytopenia (20,000 platelets).

Clinical Hypothesis: Immune thrombocytopenic purpura, Thrombocytopenia secondary to an infectious condition, Drug-induced thrombocytopenia, Paraneoplastic thrombocytopenia.

Diagnostic Pathways: Immunological study was normal and viral serologies were negative. Neoplastic cause or pharmacological iatrogenesis were excluded. Myelogram was normal too. A diagnosis of Immune thrombocytopenic purpura was admitted and treatment with methylprednisolone was started followed by prednisolone, with initial favorable response. After a few weeks, routine laboratory evaluation showed thrombocytopenia, assumed as refractory to corticosteroid therapy. She was admitted multiple times for in-hospital treatment, with different treatments (immunoglobulin, rituximab, methylprednisolone), always with a proper initial response but with an eventual reduction in platelet count. After failed pharmacological treatment, a splenectomy was performed. There was a transient elevation of platelets, and subsequent reduction. Finally, eltrombopag was started, with the same outcome: an initial resolution of the thrombocytopenia, followed by an analytic worsening shortly after lowering the dose. Since then, she is treated with eltrombopag in a variable dose with corticosteroids, with oscillating platelet count and a difficult medical management.

Conclusions: Immune thrombocytopenia is the second most common cause of acquired thrombocytopenia, and despite the existence of multiple therapeutic lines it can present as a serious entity and a therapeutic challenge.

PV953 / #1083

NEURO-BEHÇET'S DISEASE - A CLINICAL CASE

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Case Description: A 46-year-old woman presents to the emergency department with a history of hemicranial headache with edema of the left face and cervical region in the last two days. This is a patient with a personal history of recurrent oral aphthae and Crohn's disease (diagnosis made during colonoscopy).

Clinical Hypothesis: Migraine, inflammation of trigeminal nerve, venous thrombosis.

Diagnostic Pathways: During hospitalization in an Internal Medicine ward, a computed tomography scan with contrast showed thrombosis of the left dural transverse sinus. The autoimmunity study showed a positive HLA-B51 antigen. Taking into account the clinical criteria, the diagnosis of Neuro-Behçet's disease was made.

Conclusion and Discussion: Behçet's disease (BD) is an

inflammatory disease characterized by recurrent oral aphthae and numerous potential systemic manifestations. Neuro-Behçet's disease (NBD) is one of the most serious expressions of Behçet's disease (BD) and occurs in less than 10% of these patients. Venous disease related to venous thrombosis is more common than arterial disease and can represent an early manifestation of the disease. The positivity of the HLA-B51 antigen increases the risk of developing Behçet's disease.

PV954 / #1089

ORAL MANIFESTATIONS AND COMPLICATIONS IN SJÖGREN SYNDROME

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Background and Aims: Glandular involvement causing sicca syndrome is the hallmark of Sjögren syndrome (SS). A good evaluation of the oral cavity involvement is necessary. Regular buccal care is an integrant part of SS treatment.

Methods: It's an observational descriptive and analytic study based on SS patients 'files who were hospitalized in the internal medicine department. The study was realized between February and May 2018.

Results: Forty-seven patients were included (46 women and 1 man) with a mean age of 51 years [24-74 years]. Glandular manifestations revealed the disease in 91.6% of the cases. Xerostomia was noted in all the cases. Chewing difficulties were present in 39.1% of the cases, swallowing difficulties in 32.6%, burning sensation in the mouth in 26%, taste alteration in 23.9%, spontaneous mouth pain in 15.2% and mouth ulceration in 13% of the cases. Oral examination showed mucosal changes in 65.3% of the cases. Cavities were found in 73% of the patients. All patients had glandular biopsy. It revealed a stage 3 sialadenitis in 70.2% of the cases and a stage 4 in the other cases.

Conclusions: Sicca syndrome in SS is very invalidating. If not handled correctly and precociously, severe complications can occur increasing the impact on the quality of life of SS patients.

PV955 / #1119

THE MASK OF LUPUS

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Case Description: We present the case of a 31-year-old male, native of India and homeless in Portugal, who is admitted to the Emergency department due to facial lesions with two months' progression. He had no past medical history and no exposure or

contact to chemicals. He took no medication or drugs.

Clinical Hypothesis: The facial rash consisted of severe erythematous, desquamative and pruriginous lesions. They had originally manifested on the nasal pyramid, but soon progressed towards the malar and supraciliary regions bilaterally. Given the rash characteristics, main diagnosis of discoid lupus was considered. The following image shows the lesions.

Diagnostic Pathways: On review of systems the patient also complained of recurrent and persistent oral ulcers. Laboratory analysis showed thrombocytopenia and lymphopenia. Antibody testing revealed positive anti-dsDNA and positive IgM anti-cardiolipin antibody. Therapeutic trial was started with topic corticosteroids and hydroxychloroquine 400 mg once daily, with marked improvement of cutaneous lesions.



#1119 Figure

Conclusion and Discussion: Skin manifestations are a hallmark for differential disease diagnosis and for defining systemic involvement or case severity. Given the clinical case history, as well as the characteristics and severity of the rash, an initial presumptive diagnosis of discoid lupus was made. However, the severe lesions also highlighted systemic disease, which allowed the definite diagnosis of systemic erythematosus lupus to be made on further evaluation.

PV957 / #1133

AUTOIMMUNE DISORDERS IN THE INTENSIVE CARE UNIT - A COHORT ANALYSIS

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Background and Aims: Autoimmune disorders are a diverse group of disorders with a high risk of complications that can lead to admission in Intensive Care Units (ICU). Our aim is to characterize a population of patients with autoimmune disorders admitted to ICU. We also sought to identify predictors of mortality in this group of patients.

Methods: This was a retrospective study. We reviewed all clinical files of patients with autoimmune disorders admitted to ICU during a 5-year period.

Results: We found 64 ICU admissions involving autoimmune disorders (1.43% of all admissions). The median age was 59.6 years. 64% of patients were female. The most prevalent disorder was Rheumatoid Arthritis (43.75% of patients). Most patients (59.38%) were under systemic corticoid therapy at the time of ICU admission. Infection was the cause of admission in 60.94% of cases. There were no statistically significant differences between autoimmune patients and the general ICU population regarding severity scores and mortality. The diagnostic of Systemic Vasculitis and the presence of cardio-vascular dysfunction are associated with greater mortality in this subgroup of patients.

Conclusions: Autoimmune disorders, although rare, may have serious complications. In our study population, we found no significant differences between these patients and the general ICU population. However, the heterogeneity of this population merits further study in order to identify prognostic factors that can influence the management of these patients in the ICU setting.

PV958 / #1154

IGG4-RELATED DISEASE BEGINNING WITH AN APPENDICECTOMY

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Case Description: A 19-year-old male was admitted in our hospital for an appendicectomy. During the hospital stay he had a creatinine value of 2.07 mg/dL. He also had a recent weight loss of 15 kg, left submandibular glandular hypertrophy, bilateral parotid hypertrophy and periorbital edema, anemia, eosinophilia and hand arthralgias with inflammatory features.

Clinical Hypothesis: IgG4-related disease (IgG4-RD) is an immune-mediated disease associated with fibroinflammatory lesions. Common features include autoimmune pancreatitis, major salivary gland enlargement, orbital disease and retroperitoneal

fibrosis (that can lead to renal injury), but it can occur in almost any anatomical location. Also, several conditions share some features with IgG4-RD, such as Sjögren's syndrome, anti-neutrophil cytoplasmic antibody associated vasculitis, as well as other granulomatous diseases. Taking into account his eosinophil count, an hypereosinophilic syndrome should also be considered on differential diagnosis of this patient.

Results: Diagnostic Pathways This patient had an increase in IgG4 of 7,430 mg/dL (upper limit of 201) and a positive rheumatoid factor, with the remaining autoimmune study negative. The chest TC showed a pulmonary micronodular pattern. A renal biopsy was performed and revealed an inflammatory lymphoplasmocytic infiltrate with areas of storiform fibrosis. Immunohistochemistry revealed positivity for IgG4. Therefore, an IgG4-RD was assumed, fulfilling the ACR/EULAR classification. He started prednisolone with a remarkable improvement in constitutional symptoms, glandular hypertrophy and eosinophilia.

Conclusions: Despite being a recently described disease, it has a huge impact on patients lives, whose correct diagnosis and therapy may significantly improve their quality of life.

PV959 / #1174

A RARE CASE OF MIXED CONNECTIVE TISSUE DISEASE COMPLICATED BY CRESCENTIC IGA NEPHROPATHY

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Case Description: A 52-year-old well-controlled hypertensive woman presented to the outpatient clinic with a one-year history of progressive fatigue, weight loss and foamy urine following a seven-year history of photosensitivity and pruritic skin rashes on her forearms and cheeks. In the last three months, she had developed puffy hands, heliotropic rash, Raynaud's phenomenon and scapular muscle weakness.

Clinical Hypothesis: Mixed connective tissue disease (MCTD) with primary biliary cholangitis overlap and rapidly progressive renal insufficiency.

Diagnostic Pathways: Laboratory investigation showed normocytic anaemia, erythrocyte sedimentation rate 120 mm/1sthour, rapidly progressive renal failure (creatinine increase from 1.4 mg/dL to 2.5 mg/dL in four months), proteinuria 768 mg/24h, active urine sediment, polyclonal hypergammaglobulinemia, raised g-glutamyltranspeptidase and alkaline phosphatase with no hyperbilirubinemia. Autoimmune profile showed ANA 1/1280, anti-Sm 49.7, anti-RNP 4118 and positive anti-AMA. ANCA were negative. Abdominal and renal ultrasound were unremarkable. Kidney biopsy was compatible with crescentic IgA nephropathy (IgAN). Induction therapy with iv pulse cyclophosphamide along with high dose steroid was

initiated, later switched to maintenance azathioprine and low dose steroid, with clinical improvement.

Conclusion and Discussion: IgAN is the most common primary glomerulopathy and only occasionally has a rapidly progressive course. Kidney involvement is uncommon in MCTD. However, a wide range of immune-mediated glomerulopathy has already been reported in patients with MCTD, remaining the doubts about a common pathophysiology. This case highlights the importance of renal function monitoring in patients with MCTD as well as the role of kidney biopsy to guide adequate therapy.

PV960 / #1179

CASE REPORT: PAUCI-IMMUNE CRESCENTIC GLOMERULONEPHRITIS

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Background and Aims: Pauci-immune crescent glomerulonephritis is a rapidly progressive condition that leads to kidney failure and can be fatal. In the most cases, antineutrophil cytoplasmic antibodies (ANCA) are positive.

Methods: Clinical process review.

Case Description: A 62-year-old man, past history of dyslipidemia, attended the emergency room with an episode of hypertensive peak with systolic blood pressure of 180 mmHg, associated with nausea. There was no history of systemic symptoms. Body temperature was 36.7°C, pulse 80/minute, breath rate 20/minute, and blood pressure 128/76 mmHg. Laboratory tests revealed: haemoglobin 12.3 g/dl with normal leucocytes and platelets. Serum creatinine was 2.8 mg/dl, urea 94 mg/dl; electrolytes was normal, albumin: 2.5 gr/dL, cholesterol: 151 mg/dL, triglyceride: 146 mg/dL, PCR was 67.2 mg/dl. Urinalysis revealed 376 red blood cells, 51 white blood cells and 5 casts. Twenty-four-hour urine protein excretion was 3.553 mg. Serological tests revealed C3 and C4 was normal; ANA and antiDNA negative; ANCA positive (p-ANCA 1:80); HbsAg, AntiHbs and anti HCV negative. Renal ultrasound revealed normal sized kidney with moderate loss of parenchymal sinus differentiation. Kidney biopsy revealed pauci-immune crescentic glomerulonephritis with 3 cellular and 5 fibrocellular crescents and 9 with segmental sclerosis out of 20 glomeruli. Immunofluorescence microscopy did not show immune deposition. The patient was treated with intravenous methylprednisolone and rituximab. In the clinical follow-up, the patient is in remission.

Conclusion and Discussion: This case report is important to emphasize the importance of renal biopsy, especially in patients with lack of systemic findings and mild renal findings.

PV961 / #1185

EVANS SYNDROME IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: A 55-year-old female patient goes to the Emergency Department due to extreme fatigue in the last week. The patient also reports articular pain of insidious onset with symmetrical and addictive involvement of peripheral joints with stiffness worse in the morning with years of evolution. Complaints of dry eyes and mouth, erythematous lesions on the legs, painful aphthae in the oral and vaginal mucosa are also present. She has a personal history of Hyperthyroidism.

Methods: The laboratory reports showed hemoglobin of 67 g/L, mean globular volume 125 fL with marked anisocytosis. Also, neutropenia and thrombocytopenia were found. Findings compatible with hemolysis were made: low haptoglobin, high lactate dehydrogenase and total bilirubin. The direct antiglobulin test was positive, with 4+ C3d positive IgG antibodies. No changes in the kidney function were found. Thyroid function, iron, folic acid, b12vitamin within normal ranges. These findings were compatible with Evans Syndrome. A autoimmunity study was made: dsDNA antibodies >gt; 300U/mL (reference <lt;20), positive antinuclear antibodies, homogeneous pattern, SSA 60kDA positive antibodies. Complement consumption of C3 and C4. Abdominal ultrasound with mild splenomegaly.

Results: She was treated with intravenous immunoglobulin and prednisolone. After starting azathioprine, she developed sepsis, with *Klebsiella pneumoniae* found in blood culture.

Conclusions: Systemic Lupus Erythematosus is a chronic autoimmune disease that can affect any organ. Hematological manifestations are common as a form of initial presentation of the disease, however, Evans Syndrome is rare, can be severe and requires immediate treatment. It is also uncommon to find the concomitant occurrence of neutropenia mirrored here in this case.

PV962 / #1248

CARDIOVASCULAR AUTONOMIC CONTROL, SLEEP AND HEALTH RELATED QUALITY OF LIFE IN SYSTEMIC SCLEROSIS

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Background and Aims: Systemic sclerosis (SSc) is an autoimmune disease characterized by high levels of inflammation, vascular damage and autoantibody production which lead to digital ulcers and fibrosis of the skin and internal organs. These pathophysiological alterations result in chronic pain and dysautonomic symptoms (esophageal dysmotility, diarrhea, occlusive syndrome and altered cardiovascular autonomic control), that deteriorate scleroderma patients' health-related quality of life with serious repercussions on social life and sleep. ANS modification takes place before vascular damage and tissue fibrosis occur and Heart Rate Variability analysis can identify this subclinical condition. The aim of the study is to assess the relationship between pain, quality of life status and cardiovascular autonomic profile.

Methods: We evaluated autonomic cardiac control of 20 scleroderma patients at rest (16 females). ECG and respiration were recorded for the analysis of Heart Rate Variability (HRV) using linear spectral analysis and non-linear symbolic analysis. Pain was evaluated using the Numeric Rating Scale (NRS) and 3 questionnaires were administered for the evaluation of sleep quality (PSQI), mood tone (PHQ-9) and disability (HAQ).

Results: Sleep impairment was related to sympathetic predominance at rest. Poor sleep quality was associated with higher pain values and more depressive symptoms. Consistently, as the NRS scores and pain interference increase, the degree of disability worsens. Symbolic analysis of HRV showed that SSc patients who experience more pain, paradoxically, have a greater parasympathetic modulation.

Conclusions: Dysautonomia and chronic pain have a severe impact on sleep quality and daily functionality with a consequent worsening of depressive symptoms in our cohort of scleroderma patients.

PV963 / #1256

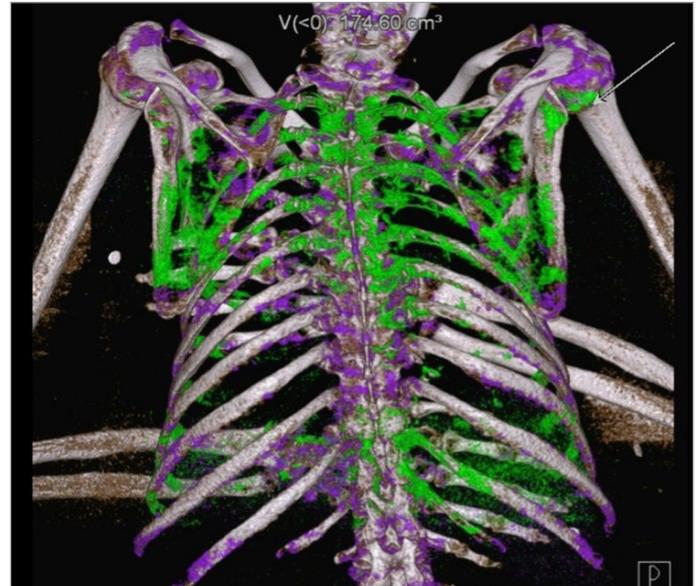
ACUTE POLYARTICULAR MIGRATORY GOUT ARTHRITIS WITH AXIAL INVOLVEMENT. A CASE REPORT

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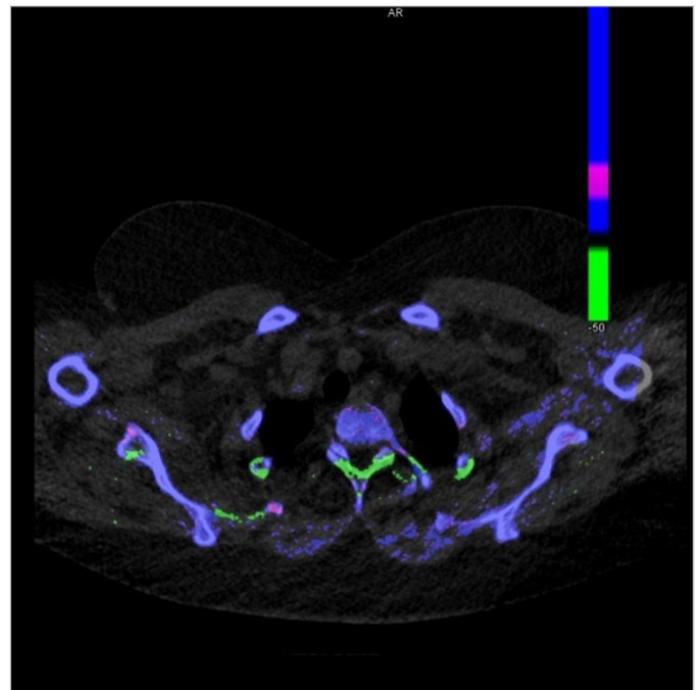
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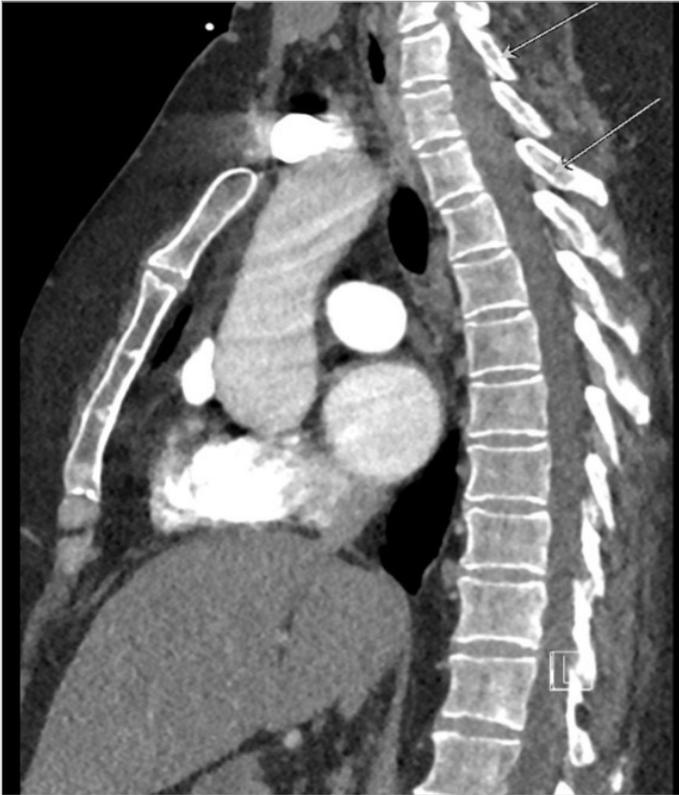
Case Description: 61-year-old lady presented with two days history of right sided body aches with severe pain and swelling in the right wrist, not relieved with simple analgesics. Her past medical history includes recurrent DVT (on warfarin), diabetes, chronic hemarthrosis of bilateral shoulders and multiple joint arthralgia with negative autoimmune workup. She was initially treated with analgesics and antibiotics for septic arthritis. However, clinical features were suggestive of acute inflammatory arthritis in multiple joints involved. The synovial analysis showed



#1256 Figure: Coronal DECT 3D reformat of the thoracic cage demonstrating Sodium Urate crystal deposition (green color, arrow) in the right shoulder and multiple thoracic costal cartilage chondrocalcinosis is also shown as green.



#1256 Figure: Axial image showing Sodium urate crystal deposition at the T1-T2 facet joint (green).



#1256 Figure: Sagittal unlabelled DECT image showing faint calcification at the t1-2 and t3-4 facet joints (arrows).

negatively birefringent monosodium urate crystals. Diagnosis of acute polyarticular migratory gout arthritis was confirmed on Dual-Energy Computed Tomography Scan (CT), affecting both shoulders and wrists with evidence of uric acid deposition in the upper thoracic vertebral facet joints, T1 to T4, consistent with axial skeletal involvement. She was treated with steroids, allopurinol, and colchicine with dramatic improvement in her inflammatory markers and clinically.

Clinical Hypothesis: Our case illustrates unusual presentation of gout being polyarticular and migratory in nature, involving shoulders, wrists and axial skeleton.

Diagnostic Pathways: Her workup includes CBC, renal profile, inflammatory markers, autoimmune workup, Synovial fluid analysis, Ultrasound wrist, and Dual-Energy Computed Tomography scan.

Conclusion and Discussion: Polyarticular inflammatory arthritis should raise the suspicion of gout, though migratory gout especially with axial involvement is quite rare.

Saketkoo LA, Robertson HJ, Dyer HR, Virk ZU, Ferreyro HR, Espinoza LR, Axial gouty arthropathy. *Am J Med Sci* 2009; 338:140–6.

Raddatz D, Mahowald M, Bilka P. Acute polyarticular gout. *Annals of The Rheumatic Diseases*, 1983; 42:117-112.

PV964 / #1277

PATIENT CHARACTERISTICS AND HEALTHCARE RESOURCE USE (HCRU) IN PATIENTS WITH HYPOGAMMAGLOBULINEMIA: REAL-WORLD EVIDENCE FROM A FRENCH NATIONAL COHORT (ECONOMHYQ STUDY)

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Background and Aims: Patients with primary (PID) or secondary (SID) immunodeficiencies can undergo long-term subcutaneous immunoglobulins (SCIGs) replacement therapy. Those administered at home may require nurse and pump service provider visits. Given frequency administration differences of SCIGs [Hizentra[®] and Gammanorm[®], weekly conventional SCIGs (cSCIGs); HyQvia[®], a monthly hyaluronidase-facilitated SCIG (fSCIG)], this study aimed at comparing PID/SID patient characteristics and healthcare resource use (HCRU) related to SCIG administration.

Methods: This retrospective cohort included newly treated patients with PID/SID (no Ig-administration during the previous 6 months) receiving SCIGs from Q4-2016 to Q2-2018 within the French National Healthcare database (SNDS). Across the SCIG subgroups, patient characteristics and monthly rates of HCRU variables (e.g. nurse and pump provider visits, treatment doses...), were described. HCRU were compared using Poisson models adjusted for patient characteristics. Risk ratios (RRs and 95% CIs) were reported.

Results: 2,012 patients (534 PIDs; 1,478 SIDs) were identified. In PID and SID subpopulations, respectively: patients' mean age were 54 and 65 years; 58% and 48% were females; and the most frequent comedications were those treating digestive/metabolic disorders (48%/57%) and antibiotics (42%/47%). HCRU rates were similar for all cSCIG-treated patients, which were higher than in fSCIG-treated patients, in particular for nurse and pump service provider visits: respectively, 2.5 (2.3-2.6) and 3.1 (2.9-3.22) times more likely for cSCIGs versus fSCIG, in PIDs patients. In SID patients, RRs were: 1.6 (1.5-1.6) and 3.1 (3.0-3.3), respectively.

Conclusions: This study in PID/SID patients showed that fSClg-treated patients had lower HCRU than cSClg-treated ones. Funding and medical writing support were provided by Takeda.

PV965 / #1288

A RARE CASE OF THROMBOTIC THROMBOCYTOPENIC PURPURA WITH SLE

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Background and Aims: TTP is an acute syndrome associated with microangiopathic hemolytic anemia, and thrombocytopenia and affects multiple organ system. The etiologies may be classified as drugs, transplantation, pregnancy, infections, and immunological disorders such as SLE.

Methods: 34 year old woman patient presented to the clinic with dark urine color and petechial rashes on her arms. She had no known comorbidity or medicine prescribed at the time. She had a history of a single live birth and a miscarriage 6 months ago. Petechial rashes were the only pathological finding. CBC, peripheral smear examination, and ADAMTS-13 tests were performed. The patient also had joint pain, pericardial effusion, hematologic pathology, and positive ANA. Thus, SLE is considered.

Results: Hb: 12 gr/dl, Plt: 6000 UI, Ldh:1066 mg/dl, total bilirubin: 2.6 mg/dl, indirect bilirubin: 2.2 mg/dl, and direct and indirect coombs tests were negative. Peripheral smear findings revealed 10% fragmented erythrocyte, and ADAMTS-13 was lower than %0.20. Patient was pre-diagnosed as TTP.

Conclusions: According to SLICC, patient diagnosed with SLE. A plasmapheresis treatment have already been planned due to TTP, additional 250 mg pulse steroid was added for 3 days. A 5 days 1 gr IVIG treatment was planned as the thrombocyte count or schtosity percent of the patient did not change. Clinical table did not improve, thus 3 doses of rituximab treatment was planned. 12 days after the first dose, her Plt increased to 156,000 UI. Hence, plasmapheresis treatment was discontinued. After the second dose, thrombocyte count of the patient were normalized and her general medical condition was improved.

PV967 / #1355

THROMBOSIS AND THROMBOCYTOPENIA IN ANTIPHOSPHOLIPID SYNDROME: THEIR ASSOCIATION WITH MEAN PLATELET VOLUME AND HEMATOLOGICAL RATIOS

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Background and Aims: To assess the mean platelet volume (MPV), platelet-to-lymphocyte ratio (PLR), the neutrophil-to-lymphocyte ratio (NLR) and the MPV-to-lymphocyte ratio, and to test them according to the clinical/serological status, shift through time and other comorbidities in APS.

Methods: We included 96 primary APS patients according to the Sydney classification criteria and/or patients with thrombocytopenia and/or autoimmune hemolytic anemia who also fulfilled the serological criteria. We tested aCL, anti-β2GP-I and aPS/PT antibodies and LA. We registered the MPV and the aforementioned ratios at the first complete blood count within at least 6 months after an acute event (baseline determination) and at the time of an acute event (thrombosis/thrombocytopenia) when available.

Results: A lower baseline MPV and a higher PLR characterized the thrombotic group (n=74). The AUC for baseline PLR was 0.82 (p <0.001): SE of 69%, SP 91%, PPV 96%, NPV 74%, LR+ 13.67 and LR- 0.19. During an acute event, both variables increased. The thrombocytopenic group (n=66) had a higher baseline MPV and a lower PLR, and during an acute event the PLR decreased more deeply. The AUC for MPV was 0.64 (p=0.02): SE 44%, SP 92%, PPV 86%, NPV 40%, LR+ 3.3 and LR- 0.85. These findings were not related with the aPL antibody profile status, titers or comorbidities.

Conclusions: Basal MPV and PLR might help to identify APS patients according to their thrombotic or thrombocytopenic phenotype. These variables change during the acute events and might be the reflex of a physiopathological or compensatory mechanisms in APS.

PV968 / #1377

NEISSERIA MENINGITIDIS AS A CAUSE OF ISOLATED BILATERAL POLYARTICULAR NATIVE KNEE JOINT SEPTIC ARTHRITIS

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Case Description: We present the case of a 63 year old lady admitted with bilateral knee pain and swelling, lower limb rash and a fever, initially managed as a Reactive Arthritis but subsequent Polymerase Chain Reaction (PCR) molecular analysis revealed capsular group B *N. meningitidis* in bilateral knee aspirates. We discuss the diagnostic challenges in differentiating Septic Arthritis from inflammatory arthritis, and the role of PCR molecular analysis in that process.

Clinical Hypothesis: The initial working diagnosis was Reactive Arthritis secondary to a recent pharyngitis.

Diagnostic Pathways: Routine bloods demonstrated a CRP of 399. X-rays of both knees revealed bilateral moderate effusions. Joint aspiration of both knees was performed with 120 ml of yellow coloured fluid aspirated from both knees. Blood cultures were negative. The initial PCR screening test was positive and detected bacterial 16S rDNA and further molecular typing confirmed *N. meningitidis* with capsular genogroup B. Subsequent non culture

sequencing of the factor H binding protein and PorA epitope revealed it to belong to the subtype P 1.12-1.9 and hence the utility of vaccination with Bexsero could not be determined.

Conclusion and Discussion: *N. meningitidis* is a leading cause globally of fatal sepsis and meningitis. We highlight the importance of recognising polyarticular septic arthritis as a clinical entity; accounting for 15% of all cases of septic arthritis. We have described a case of *N. meningitidis* being identified as the causative organism by PCR assay of synovial fluid in a patient with bilateral Septic arthritis of the native knee joint.

PV972 / #1402

THROMBOTIC THROMBOCYTOPENIC PURPURA ASSOCIATED WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: Thrombotic thrombocytopenic purpura (TTP) characterizes by thrombocytopenia, microangiopathic hemolytic anemia, neurologic abnormalities, renal insufficiency, and fever. TTP is a medical emergency that needs early diagnosis and initiation of plasma exchange. SLE is multisystem autoimmune disease and shares some clinical features with TTP. We report patient with concurrent TTP and SLE.

Methods: 29 year old lady, presented with 6 months history of vaginal bleeding and fatigue. Laboratory findings were significant for pancytopenia and normal coagulation. She had mild renal impairment and bone marrow biopsy was normal. She was diagnosed with immune thrombocytopenia and hemolytic anemia. She was given steroid and IV immunoglobulin without benefits. On day 5, she developed fever, tonic clonic seizure and CT brain showed acute bilateral occipital subarachnoid hemorrhage. She required intubation and critical care admission. TTP was highly suggested and urgent therapeutic plasma exchange (TPX) was arranged.

Results: The immunological workup revealed elevated ANA (1:1280) and double stranded DNA (387). She fulfilled the clinical criteria for SLE and TTP diagnoses was confirmed by low ADAMTS 13 activity <7% and positive ADAMTS 13 inhibitors. She was managed with 6 TPX sessions, initially with 100% fresh frozen plasma (FFP) replacement in 3 sessions, then 50% FFP with 50% albumen due to lack of plasma with clinical recovery. She was started on mycophenolate 1000 mg BID, Hydroxychloroquine 400 mg, and tapering dose of steroid.

Conclusions: TTP secondary to SLE is rare and challenging diagnosis. Treatment with TPX and immunosuppressant medications is fundamental. Utilization of 50% FFP replacement in plasma exchange for TTP is effective.

PV973 / #1417

LUPUS PERNIO: A CLASSICAL LESION IN SARCOIDOSIS

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Case Description: 55-year-old female, presented with localized skin lesions for 2 months. The previous history of dyspnea was elicited, outside evaluation of which revealed the presence of bilateral hilar and mediastinal lymphadenopathy on contrast-enhanced computed tomography. On clinical examination, discrete reddish-purple indurated plaques with erythematous border were noted on the left cheek, left pinna, and scalp with partially preserved hair follicles (image). Subcentimetric left axillary lymphadenopathy was also appreciated.

Clinical Hypothesis: Differential diagnosis of such plaques would include (1) Discoid lupus erythematosus (2) Lupus vulgaris (3) Lupus pernio (4) Chronic granulomatous infectious diseases.

Diagnostic Pathways: Chest x-ray showed calcified bilateral hilar lymphadenopathy and subsequent CECT thorax showed fibrotic band and mild interstitial thickening in bilateral lower lobes with calcified bilateral hilar lymphadenopathy. The patient underwent a skin biopsy which was negative for interface dermatitis and infectious skin diseases. Serum ACE level was assessed to be low. Although we could not demonstrate any non-caseating epithelioid granuloma on skin biopsy diagnosis of sarcoidosis with lupus pernio was made after exclusion of all possible differentials in the background of the compatible clinical scenario.

Conclusion and Discussion: Lupus pernio is a specific cutaneous manifestation of sarcoidosis. The yield of skin biopsy in demonstrating



#1417 Figure

classic naked granuloma is usually poor. Cutaneous involvement in sarcoidosis occurs in approximately 25 percent of patients, more common in blacks, and herald an increased risk of extracutaneous involvement. Hence, such lesions warrant an exhaustive workup to rule out close mimickers and for systemic involvement in sarcoidosis.

PV974 / #1440

CHILBLAIN LUPUS ERYTHEMATOSUS : A RARE VARIANT OF CUTANEOUS SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: A 42-year-old female presented with joint pain for 7 years and skin lesions for 2 years. Joint pain was insidious in onset, gradually progressive, persistent, aggravated on movement, and involved large joints as well as small joints of hands and feet simultaneously. Skin lesions started as a nodule in right middle finger which broke down leaving a shallow ulcer and gradually involved all digits in the form of discoloration and pain (*image*). On clinical examination, a photosensitive malar rash on the face and a painless large palatal ulcer was seen (*image*). Involved joints were swollen and tender.

Clinical Hypothesis: The differential diagnosis in our case included – (1) Acrocyanosis, (2) Connective tissue disorders, and (3) Erythrocyanosis.

Diagnostic Pathways: Laboratory investigations revealed the presence of pancytopenia, hypergammaglobulinemia, and deranged renal function tests. The autoimmune profile showed anti-nuclear antibody positivity with speckled nuclear pattern and anti-ds-



#1440 Figure

DNA positivity. Renal biopsy was suggestive of membranous lupus nephritis. Diagnosis of Systemic Lupus Erythematosus with major and minor organ involvement was made. The presence of reddish-blue tender papules in the fingers of both hands was clinically suggestive of chilblain lupus erythematosus in the appropriate clinical background. Treatment with corticosteroids, immunomodulators, and topical tacrolimus was of benefit to our patient.

Conclusion and Discussion: Chilblain lupus is a rare, debilitating form of cutaneous lupus erythematosus. Commonly precipitated by cold exposure, it can present as reddish papules, nodules, or plaques over toes, fingers, nose, or ears. The underlying pathophysiology is autoimmune in nature, although familial forms of the disease have been reported.

PV975 / #1442

ANCA VASCULITIS MANIFESTING AS CONSTITUTIONAL SYNDROME

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Case Description: A 69-year-old man with atrial fibrillation, type 2 diabetes mellitus and hyperlipidemia, presents with 6-month long complaints of anorexia, asthenia, lower limb myalgia and significant weight loss. He also reported dysphagia, odynophagia, heartburn and postprandial fullness.

Clinical Hypothesis: In this patient it was important to investigate neoplastic and inflammatory/infectious causes.

Diagnostic Pathways: The computed tomography (CT) imaging was unremarkable except for enlarged upper mediastinal lymph nodes and the presence of scant ground glass areas in both lungs. Endoscopic studies revealed esophageal candidiasis, hiatal hernia and diverticulosis, and our patient was treated with fluconazole. Blood tests showed raised levels of inflammatory markers, HIV negative serology, high titers of myeloperoxidase antineutrophil cytoplasmic antibodies (MPO-ANCA), mild acute renal failure with non-nephrotic proteinuria and intermittent erythrocyturia. We diagnosed ANCA vasculitis with systemic involvement, namely renal and pulmonary, and the patient started corticosteroids and rituximab followed by progressive corticosteroid tapering. He gradually presented an overall improvement, weight gain, as well as normalization of renal function and disappearance of pulmonary abnormalities. MPO-ANCA titers became negative.

Conclusion and Discussion: Vasculitis are a group of autoimmune diseases defined by the presence of inflammatory cells in the vessel wall which ultimately leads to its necrosis. They can present with an acute onset or a more indolent course. This case highlights the fact that ANCA vasculitis associated with MPO antibodies may manifest mainly with general health status deterioration rather than with significant overt organ damage. Despite the presentation of this case, it was possible to obtain an early diagnosis as well as an excellent therapeutic response.

PV976 / #1443

PREVALENCE OF CHLAMYDIA TRACHOMATIS IN MALES WITH ANKYLOSING SPONDYLITIS

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Background and Aims: Identifying individual parameters capable of predicting disease severity and therapeutic outcome in patients with AS is a priority. A better elucidation of the potential role of the individual microbiota in these diseases could be a promising tool worth exploring. Comparison of the prevalence of Chlamydia trachomatis infections in patients with ankylosing spondylitis (AS), using DNA amplification assays.

Methods: The prevalence of C trachomatis infections was assessed in 32 patients with AS and in 18 controls with appropriate age and sex. Biological material from uretra was tested by PCR. In addition, blood samples from patients with AS were tested for serum anti-C trachomatis antibodies (IgA and IgG).

Results: No significant differences were found between cases and control in the prevalence of C trachomatis infections. No associations were found between C trachomatis antibodies and disease characteristics, except for anterior uveitis (AU). Approximate half of the men (45%) with AS were IgG positive and had a history of AU compared to 13.5% IgG negative men ($P < 0.001$).

Conclusions: The prevalence of C trachomatis infections detected by DNA amplification tests available in patients with AS is not higher compared to the control group adjusted by sex and age. However, there appears to be an association between specific antibodies to C trachomatis and AU.

PV977 / #1451

OCULAR MYASTHENIA GRAVIS

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Case Description: An 85-year-old man with known arterial hypertension presented with sudden diplopia followed by a droopy eyelid. He mentioned a similar episode three years earlier, with spontaneous remission. At the emergency department he showed left upper eyelid ptosis and limitation of leftward horizontal gaze mainly due to abduction paresis. His left eyelid showed fatigability and more severe ptosis upon repetitive opening/closing with accompanying myokymia and improvement after the ice test. There was no bulbar or limb fatigability and the remaining physical examination was unremarkable.

Clinical Hypothesis: We attributed this complex ophthalmoparesis to an ocular myasthenic syndrome.

Diagnostic Pathways: Standard blood tests and thyroid function were normal. Brain computer tomography (CT) scan and angiography ruled out acute lesions, and magnetic resonance excluded brainstem ischemia and inflammatory lesions. Thoracic CT scan excluded thymoma. Serum acetylcholine receptor antibodies (AChR-Abs) were positive. He started alternate eye occlusion and pyridostigmine with improvement of ptosis, ophthalmoparesis and diplopia.

Conclusion and Discussion: Myasthenia gravis (MG) is an autoimmune disease that affects the neuromuscular junction of the skeletal muscle resulting in fluctuating, fatigable weakness, which is often underdiagnosed in the elderly. In 15% of cases, the disease remains restricted to the extraocular muscles – ocular MG (OMG). AChR-Abs have been implicated in up to 99% of patients with generalized MG and in 40-77% of patients with OMG. This case illustrates an elderly patient with AChR-Abs positive OMG who presented a good response to pyridostigmine, with improvement of muscle weakness. Early recognition and treatment are important to achieve disease remission and prevent progression to generalized MG.

PV978 / #1475

RELATIONSHIP OF ANGIOGENIC GROWTH FACTORS (IGF-1, FGF-B, PDGF-AA), PRO-INFLAMMATORY CYTOKINES AND THEIR SOLUBLE RECEPTORS IN GOUTY PATIENTS WITH OBESITY

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Background and Aims: To study concentrations of insulin-like growth factor (IGF-1), a basic fibroblast growth factor (FGF-b), a platelet-derived growth factor (PDGF-AA), as well as a level of blood serum cytokines (IL-1 β , TNF- α , IL-6, IL-20, IL-23) and cytokine soluble receptors (sRp55TNF- α и sRIL-6) in gouty patients with obesity

Methods: The study involved 213 men with gout, the average age is 41.4 \pm 3 years. VEGF-A, HGF and IGF-1 concentrations were measured by multiplex immunological fluorescent analysis in plasma collected from 93 men (mean BMI, 23.2 \pm 0.4) and 122 obese (mean BMI, 33.5 \pm 1.3) subjects after an overnight fast. Serum level of IL-1 β , TNF- α , IL-6, IL-20, IL-23, sRp55TNF- α and sRIL-6 were determined by ELISA method. Statistical processing of research results was performed using Statistica 6.0.

Results: The obesity with body mass index (BMI) >30.0 kg/m² was established in 57.3% gouty patients. At was observed, that the IL-1 β , IL-6, TNF- α concentrations in 4.2 times and IL-20, IL-23 levels in 3.4 times were increased in these subjects ($p < 0.05$). At was observed, that the content of cytokine soluble receptors sRp55TNF- α elevated in 3,4 times, but sRIL-6 decreased in 2.3 times ($p < 0,05$) in gouty patients with obesity. The elevated contents IGF-1 by 28.0%, FGF-b by 24.0% and PDGF-AA by 37.0% ($p < 0.05$) were determined in gouty patients with

BMI>30.0 kg/m². The positive correlation between IGF-1, FGF-b concentrations, with IL-6, TNF- α , sRp55 TNF- α (P <0.001) and negative correlations with sRIL-6 (p <0.05) were established.

Conclusions: The increased levels of pro-inflammatory cytokines and growth factors may be a new marker of cardiovascular damage in gouty patients with obesity.

PV979 / #1497

ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODY (ANCA)-ASSOCIATED VASCULITIS: A DIFFERENT PRESENTATION

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Case Description: A 64-year-old male with the previous diagnosis of chronic kidney disease stage 5 (basal creatinine 5 mg/dL) secondary to autosomal dominant polycystic kidney disease (ADPKD) was admitted at emergency department due to acute hemoptysis. On physical examination the patient presented peripheral edema and decreased urine output (anuria). Blood test showed hemoglobin 6.9 g/dL (basal value of 13.8 g/dl), systemic inflammatory response syndrome and anuric acute renal failure (Creatinine at admission of 14 mg/dL). Thoracic CT scan was performed and revealed evidence of alveolar hemorrhage. A bronchofibroscopy was conducted a few days later but revealed no changes.

Clinical Hypothesis: As initial diagnosis the ADPKD progression was admitted and hemodialysis was started.

Diagnostic Pathways: At the 10th day after hospitalization, the patient developed painful and non-pruritic dispersed purple vesicles. The immunological study showed ANCA-MPO positive and the skin biopsy was compatible with microscopic polyangiitis (MPA). At the 25th day the patient initiates rectorragias needing blood transfusion. Upper digestive endoscopy, colonoscopy, abdominal angioCT and gastrointestinal scintigraphy revealed no hemorrhagic focus. Despite this, the patient maintained rectorragias and the gastrointestinal involvement was assumed. So therapy with cyclophosphamide was added with resolution of all blood losses. At discharge, the patient presented clinical improvements but with no renal function recovery.

Conclusion and Discussion: MPA is a rare small-system pauci-immune vasculitis, which can present with severe renal failure associated with necrotizing glomerulonephritis with multiorgan involvement. In this case, the previous diagnose of ADPKD was a misleading factor for the swiftly establishment of the MPA diagnosis.

PV980 / #1507

ARTERIAL ISCHEMIC EVENTS: A RARE PRESENTATION OF ANTISYNTHEASE SYNDROME

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Case Description: A 60-year-old woman with anti-synthetase syndrome presented with digital gangrene of the toes. She initially described blue discoloration of her toes over a period of two months, which progressed into necrosis. Past medical history is significant for long-term steroid therapy, diabetes mellitus, lower extremity arterial disease, an episode of deep vein thrombosis and a Kaposi's sarcoma treated with dapsone. The patient was treated with analgesics, low-weight heparin, low-dose aspirin and pentoxifylline. A Doppler ultrasound of the affected limb detected an occlusion of the femoral artery. CT angiography showed multiple stenoses at the lower limbs arteries, which caused the patient's digital gangrene. Upon discharge, revascularization of the right femoral artery by surgical approach was considered. A month ago, she was confirmed with a moderate form of SARS-CoV-2 infection, without worsening of her autoimmune condition.

Clinical Hypothesis: The findings were consistent with a diagnosis of acute digital ischemia in a patient with anti-Jo-1 polymyositis and chronic limb threatening ischemia.

Diagnostic Pathways: Diagnostic testing involved the evaluation of myositis - associated autoantibodies, with positive anti-Jo-1 (>200U/L). The CT angiography showed critical stenosis in the peripheral vascular system.

Conclusion and Discussion: Chronic inflammation has been suggested as a contributing factor to the development of atherosclerotic disease. The recommended strategy is to combine treatments to address both chronic inflammatory disease and cardiovascular disease, taking account of the metabolic and coagulation status of each patient. Until now, although some have raised concerns regarding the risk of arterial disease in patients with inflammatory myopathies, there is almost no relevant epidemiological data so far.

PV981 / #1519

AND NOW: ARE NOT FEVER AND JOINT PAIN ALWAYS SARS-COV-2 RELATED?

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Case Description: The presented case report concerns an 83-year-old male patient who was admitted to the COVID-19 emergency department with fever, shoulder and hip joint pain and difficulty in performing the basic activities of daily living, such as walking and washing the face.

Clinical Hypothesis: The rapid onset of symptoms was suggestive of an infectious disease, in particular a viral infection, or an

inflammatory rheumatic disease such as polymyalgia rheumatica, giant cell arteritis or rheumatoid arthritis.

Diagnostic Pathways: Laboratory test revealed increase of inflammatory parameters, as C-reactive protein and erythrocyte sedimentation rate, in the absence of increased leucocyte number though, excluding a possible infection. Having in mind the age of onset and the typical symptoms of morning stiffness and pain mainly in the hip and shoulder girdle, and also a prompt therapeutic response to prednisolone, the diagnosis of polymyalgia rheumatica was made. Furthermore, as this is frequently considered to be a paraneoplastic syndrome the patient also realized a full-body CT-scan which revealed a lung cancer with adrenal gland metastasis.

Conclusion and Discussion: Although we are living under the context of the COVID-19 pandemic we must bear in mind that fever and joint pain are not always SARS-CoV-2 related and we must pay attention to patients' main symptoms to make a right diagnosis. It is also important to search for malignant neoplasms when we diagnose a patient with polymyalgia rheumatica since this is a known paraneoplastic syndrome and it can make a big difference in order to start early the proper treatment.

PV982 / #1521

TUBERCULOSIS ASSOCIATION WITH SYSTEMIC LUPUS ERYTHEMATOSUS: WHAT PARTICULARITIES?

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Background and Aims: Tuberculosis is a major public health problem in Tunisia. Its incidence is important in patients with systemic diseases including systemic lupus erythematosus (SLE). The aim of this study was to describe the relationship between tuberculosis infection and SLE patients.

Methods: It is a retrospective study conducted in the internal medicine department, from 2008 to 2019, including patients with systemic lupus erythematosus who had developed a tuberculosis infection.

Results: A total number of 7 women, with a mean age of 31 years (16-56), were included. In three cases, the diagnosis of tuberculosis preceded the diagnosis of lupus with an average duration of 26 months (2 cases of lymph node tuberculosis and 1 case of urogenital tuberculosis). In 2 cases the diagnosis of lymph node tuberculosis was concomitant with the diagnosis of SLE, and required antituberculosis treatments combined with corticosteroid therapy. One of the two patients presented clinical, biological and histological signs of a macrophage activation syndrome requiring tuberculosis treatment in addition to corticosteroids and immunosuppressive treatment. Tuberculosis infection occurred after the diagnosis of SLE and under systemic corticosteroid therapy (average daily dose of 5 mg) in 2 cases: urogenital and pulmonary tuberculosis, diagnosed after 2 years and 8 years of SLE diagnosis, respectively.

Conclusions: Infections are one of the most common reasons for SLE flares. Tuberculosis infection in the context of SLE is one of the most difficult conditions to manage, because clinical features and laboratory tests can be similar in both diseases which may lead to confusion.

PV983 / #1558

STEVENS-JOHNSON SYNDROME / TOXIC EPIDERMAL NECROLYSIS OVERLAP-SYNDROME PRESENTING AS NEW-ONSET SEVERE ANEMIA

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Case Description: A 60-year-old male patient sought hospital care due to progressive global weakness, extreme fatigue, weight loss and mild odynophagia. He presented with severe symptomatic anemia, with normal peripheral white blood cells counts. Multiple cervical and thoracic adenopathies were evidenced on a CT-scan. **Clinical Hypothesis:** Considering the patient constitutional syndrome, a complementary study was conducted to address possible infectious, neoplastic or immune-mediated etiologies.

Diagnostic Pathways: The patient developed fever and inflammatory parameters started to rise. Urine and blood cultures showed no microbial growth. Due to significant clinical deterioration, antibiotic therapy was started empirically. He developed erythematous macules, that rapidly progressed to vesicles and bullae with positive Nikolsky sign, along with erosive and crusty lesions in the upper and lower labial vermillion. Thus, the patient was diagnosed with a Stevens-Johnson Syndrome/ Toxic Epidermal Necrolysis overlap-syndrome, all recently-initiated drugs were discontinued and he started on systemic corticotherapy. The patient presented favorable response following drug discontinuation, corticotherapy and wound care. Complementary studies showed positive HLA-B*580, which has been shown to have strong association with allopurinol-induced SJS/TEN, a drug that the patient revealed he had started to take less than 4 weeks before admission.

Conclusion and Discussion: According to recent studies, allopurinol is the most common cause of drug-induced SJS/TEN in European countries, presenting with ≤ 8 -week interval between initiation of treatment and onset of reaction, as seen herein. This case illustrates the diagnostic challenge that SJS/TEN can pose in the clinical setting and the importance of a prompt diagnosis and therapeutic approach.

PV985 / #1564

PREDICTIVE FACTORS OF LUPUS NEPHRITIS IN TUNISIAN PATIENTS

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Background and Aims: Systemic lupus Erythematosus (SLE) is an autoimmune disease. Renal involvement, termed lupus nephritis (LN), significantly increases the morbidity and mortality of SLE patients and requires aggressive immunosuppressive therapy. This study aims to identify the predictive factors of lupus nephritis (LN).

Methods: We performed a retrospective review of the records of 238 cases diagnosed as SLE in the department of Internal Medicine over 15 years (2005–2020).

Results: 60 patients (25.2%) had renal involvement at some stage of their illness. Comparison of clinical and laboratory features of SLE patients, with and without renal involvement (*Table #1564*), showed that lupus nephritis was significantly associated with fever; cutaneous involvement, pleuritis, pericarditis, anti-DNA antibodies, anti-Nucleosomes antibodies, and low serum complement. The multivariate analysis had found that pericarditis and low serum complement were the only predictive factor of the onset of LN.

Conclusions: LN is a major cause of morbidity and mortality in patients with SLE. Prompt recognition and treatment of renal involvement are crucial, as an early response to therapy is correlated with a better outcome.

Characteristics	G1 N=60 (%)	G2 N=178 (%)	P
Female	52 (86.7)	165 (92.7)	0.154
Fever	24 (40)	28 (15.7)	0.013
Cutaneous involvement	52 (86.7)	131 (73.6)	0.038
Pleuritis	16 (26.6)	19 (10.7)	0.002
Pericarditis	23 (38.3)	19 (10.7)	<0.001
Anti-DNA antibodies	48 (80)	102 (57.3)	0.025
Anti-Nucleosome antibodies	6 (10)	31 (17.4)	0.045
Low serum complement	27 (45)	21 (11.7)	<0.001

#1564 Table: Characteristics of SLE patients with (group G1) and without (group G2) renal involvement

PV986 / #1578

A SEVERE CASE OF NAIL PSORIASIS

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Background and Aims: Psoriasis is a common, chronic and recurrent inflammatory skin disease that occurs in children and adults worldwide, with a prevalence that ranges from 0.5 to 11.4% in adults and 0 to 1.4% in children. This disease has skin, nail and systemic manifestations. Nail psoriasis is characterized by nail deformities that result from psoriatic involvement of the nail matrix or bed. The prevalence of this manifestation among patients with psoriasis is estimated to be 10 to 55%, and occasionally it is the sole manifestation of psoriasis. The location of psoriasis in the nail apparatus influences its clinical presentation and more than one manifestation of nail psoriasis may be present in a single nail. Patients may present with involvement of a single nail or multiple nails in both hands and feet. Differential diagnosis with onychomycosis is important due to its high prevalence and different treatment strategy.



#1578 Figure 1



#1578 Figure 2

Methods: We present two clinical images a patient with nail psoriasis.

Results: 61-year-old man admitted to the Internal Medicine ward for other reasons, with previously undiagnosed nail psoriasis. He had severe deformity of both hand and feet nails, with crumbling, onycholysis and subungueal hyperkeratosis. He initiated treatment with topical corticosteroids and TNF-alpha inhibitor.

Conclusions: Nail psoriasis has a high impact on patients' lives as they may find the appearance of nails psychologically distressing, and extensive cases may confer significant morbidity and functional impairments. Therefore, managing nail psoriasis is an integral part of psoriasis therapy.

PV987 / #1582

SECONDARY HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS IN SYSTEMIC LUPUS ERYTHEMATOSUS: A CASE SERIES OF 13 PATIENTS

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Background and Aims: Hemophagocytic lymphohistiocytosis (HLH) is a life-threatening hyper-inflammatory condition characterized by excessive activation of macrophages and T cells resulting in multi-organ dysfunction. Systemic lupus Erythematosus (SLE) is an autoimmune condition that can predispose to HLH. In this study, we aimed to assess the clinical and biological features of SLE patients with HLH.

Methods: We reviewed the records of patients with SLE and identified patients who had developed HLH.

Results: A total of 13 patients with SLE-associated HLH were enrolled in the study including 10 women and 3 men. The median age at HLH onset was 27.8 years and the mean duration of SLE at HLH onset was 4 months. HLH revealed SLE in 5 cases (38.4%). Hyperferritinemia, bicytopenia or pancytopenia, and hypoalbuminemia were the most common biological features (100%, 90%, and 84.6% of patients respectively). All patients presented with fever at the time of diagnosis. Bone marrow aspirates were obtained from all patients, displayed macrophage hemophagocytosis. HLH was associated with a lupus flare in 7 patients. Infection was diagnosed in 6 patients (3 viral infections, 2 bacterial infections, and 1 tuberculosis infection). All patients received corticosteroids either alone or in combination with intravenous immunoglobulin (6/13, 46.3%). In our study, the mortality rate was 15.4%. Two patients died; one of cytomegalovirus infection another of purpura thrombotic thrombocytopenic.

Conclusions: HLH is a rare and potentially fatal complication of SLE. Recognition of HLH in SLE patients is a challenge because it could mimic an SLE flare. As a result, HLH could be probably an underdiagnosed complication of SLE

PV988 / #1586

GIANT CORONARY ARTERY ANEURYSM IN A PATIENT WITH BEHCET'S DISEASE

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Background and Aims: Behçet disease is an inflammatory vascular disease affecting vessels of all kinds and sizes. Cardiac involvement during Behçet disease is uncommon and aneurysms is a rare, potentially life-threatening manifestation of Behçet disease.

Methods: We report an illustrative case of a giant aneurysm revealing Behçet disease in a 42 year- old Tunisian man.

Results: A 42 year-old Tunisian man with a history of recurrent oral and genital aphthosis for four months was admitted to the Cardiac Care Unit with chief complaints of chest pain and shortness of breath. Laboratory tests showed raised troponin at 8 IU/nl (normal <0.5) and was significant for normocytic anemia. Electrocardiography showed an ST-segment depression in precordial leads. Echocardiography revealed hypokinesis as well as akinesis of the anteroseptal, and apical segments of the left ventricle. Coronary artery CT angiography scan revealed a large aneurysm (5 centimeters) in the proximal anterior descending branch of the left coronary artery (LCA) and another aneurysm in the posterior descending artery (PDA). On further investigations, the patient's pathergy test result was positive, and the diagnosis of BD was established. Treatment with, methylprednisolone 1 g/day for 3 days followed by oral administration of prednisone at a dose of 80 mg/day associated with monthly pulses of intravenous cyclophosphamide led to an improvement of all the symptoms.

Conclusions: The atypical feature of our reported case showed that a massive coronary artery aneurysm was the first objective sign of BD. Vascular involvement in Behçet's disease is associated with a high risk of progressive complications, morbidity, and mortality.

PV989 / #1589

BONE PAIN AND SYSTEMIC SCLEROSIS

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Case Description: The 58-year-old female patient had pelvic pain, worse at night, for three months. She also had Raynaud's phenomenon, dysphagia, xerostomia, xerophthalmia and sclerodactyly for five years. The right breast had a hard, immobile, irregular mass with 20x10 mm, and the left another one with

30x20 mm. Hemogram and biochemistry were normal and anti-centromere autoantibodies were positive. The mammography showed microcalcifications with 12x10 mm on the right breast and 30x20 mm on the left. CT revealed interstitial fibrosis with ground glass in both pulmonary bases, three sclerotic foci in the ilium and one in the femur. Scintigraphy had increased uptake in these bones.

Clinical Hypothesis: Systemic sclerosis (SS) characterized by Raynaud's phenomenon, dysphagia, sclerodactyly and breast microcalcifications with normal serum calcium and phosphate. The patient had positive anti-centromere autoantibodies which are highly specific for SS. Additionally, the patient's age and sex have the highest incidence of SS, and xerostomia, xerophthalmia, normal erythrocyte sedimentation rate (ESR) and interstitial lung disease further support this diagnosis, but the pelvic pain does not. Breast cancer with bone metastasis supported by the hard, immobile, and irregular breast mass with suspicious mammography and the nocturnal bone pain. SS could be a paraneoplastic syndrome caused by breast cancer. Bone lesions with benign characteristics are unlikely metastasis but possibly, especially when uptake is increased in scintigraphy.

Diagnostic Pathways: Biopsy of the lesions.

Conclusion and Discussion: This case illustrates how a careful medical history enables clinical reasoning, particularly in this diagnostic challenge with therapeutic and prognostic implications.

PV990 / #1593

THE CLINICAL SIGNIFICANCE OF ANTIPHOSPHOLIPID ANTIBODIES IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: Systemic lupus Erythematosus (SLE) is an autoimmune disease with variable clinical features. One-third of SLE patients are positive for antiphospholipid antibodies (aPL). In this study, we aimed to assess the prevalence and disease course of SLE patients with aPL.

Methods: Serum and plasma samples of 143 patients affected with SLE (ACR criteria) were tested for aPL (anti-CL antibodies, anti-B2-GPI antibodies, and lupus anticoagulant (LA)). Comparison of various categorical clinical manifestations between aPL positive SLE patients and SLE patients without aPL was performed.

Results: of the 143 patients with SLE, 58 (40.5%) were positive for aPL: IgG aCL in 34, IgM aCL in 31, IgG anti-B2-GP1 in 21, and IgM anti-B2-GP1 in 25. LA was found in 4 patients. There were 54 women and 4 men, mean age 33 years, range 14-83 years. At the time of aPL detection, 15 (25.8%) patients had at least one thrombotic event and 12 (20.6%) female patients experienced pregnancy

loss. Twelve patients (20.6%) had thrombocytopenia, 5 patients (8.6%) suffered from epilepsy and 5 (8.6%) had livedo reticularis. The incidence of thromboembolic events was significantly higher ($p < 0.005$) in aPL positive SLE patients than SLE patients without aPL. No significant difference was found in thrombocytopenia, pulmonary hypertension, and neurological manifestations between the two groups. Patients with IgG anti-CL had a higher prevalence of pulmonary hypertension compared to SLE patients without IgG anti-CL ($p=0.02$; OR: 4.3 [95% CI, 1.47–16]).

Conclusions: Compared with SLE patients without aPL, SLE patients with aPL have a higher prevalence of thrombosis and pulmonary hypertension.

PV991 / #1594

LACK OF ASSOCIATION BETWEEN IL-37, IL-6 AND IL-32 IN ALGERIAN PATIENTS WITH BEHÇET DISEASE

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Background and Aims: Behcet disease (BD) is a chronic systemic inflammatory disorder that involves oral aphthous, genital ulcers, skin lesions, ocular lesions, gastrointestinal and central nervous system abnormalities. It is characterized by immune system dysregulations resulting in abnormal cytokines production. Interleukine 37 (IL-37) is an anti-inflammatory cytokine with an uncertain role in the pathogenesis of Behcet disease. For this reason, we aimed to study the possible relationship between IL-37 and two inflammatory markers, Interleukin-6 (IL-6) and Interleukin-32 (IL-32), in order to determine whether IL-37 could serve as a possible therapeutic molecule in BD.

Methods: Fifty five patients with BD and 14 control subjects were enrolled in this study. Freshly blood samples were collected. Serum was collected then conserved at -80°C . IL-37, IL-6, IL-32 levels were measured by ELISA (Invitrogen for IL-6, Biotechne for IL-32, eBioscience for IL-37). Statistical analyses were performed by Mann Whitney U for group comparison while Spearman test was used for correlation analyses.

Results: We observed a significant increase of IL-32 and IL-6 serum levels during BD in comparison to controls ($p < 0.05$). However, no significant differences were noted in IL-37 levels comparing to healthy subjects ($p > 0.05$). In the other hand, correlation studies showed an absence of a significant correlation between either IL-37 and IL-6 ($r=0.1053$; $p=0.5798$) or IL-37 and IL-32 ($r=-0.1470$; $p=0.4930$).

Conclusions: Our results suggest that even if IL-37 is produced during BD, it is not a successful downregulator of IL-6 and IL-32 during Behcet disease.

PV992 / #1609

THE COEXISTENCE OF ANTIPHOSPHOLIPID SYNDROME AND SYSTEMIC LUPUS ERYTHEMATOSUS

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Background and Aims: Recognizing the antiphospholipid syndrome (APS) in patients with Systemic Lupus Erythematosus (SLE) can be difficult and underestimated. The purpose of this study is to examine the prevalence and associated factors of the coexistence of SLE and APS in a cohort of patients with SLE.

Methods: A total of 238 patients with SLE were assessed. Twenty-one patients fulfilled the classification criteria of APS. A comparison between SLE patients with confirmed APS and patients with SLE only was performed.

Results: Among 238 patients with SLE, 24.7% had positive aPL and 8.8% had confirmed APS. All of the patients had SLE prior to the diagnosis of APS. In patients with APS, 71% had a prior thromboembolic event, 47.6% pregnancy loss, and 19% had both. Among other clinical manifestations, 3 patients (14.2%) had pulmonary hypertension, 4 patients (19%) had thrombocytopenia and 2 patients (9.5%) had Livedo Reticularis. The comparison of clinical features between SLE patients with and without APS is presented in Table #1609.

Conclusions: Compared with SLE patients without APS, thrombosis, pregnancy loss, pulmonary hypertension, and neurological involvement were significantly more frequent in patients with APS. Other studies have reported similar results.

Characteristics	SLE+APS N=21(%)	SLE only N=217(%)	P
Deep venous thrombosis	15 (71)	3 (1.3)	<0.001
Pulmonary embolism	7 (33.3)	1 (0.5)	<0.001
Pregnancy loss	10 (47.6)	28 (12)	0.002
Pulmonary hypertension	3 (14.3)	9 (4.1)	0.04
Neurological involvement	11 (52.4)	35 (16.2)	<0.001

#1609 Table: Comparison of clinical features between SLE patients with and without APS.

PV994 / #1670

AORTITIS SECONDARY TO COGAN'S SYNDROME: A RARE CAUSE OF FEVER OF UNKNOWN ORIGIN

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Background and Aims: Aortitis refers to inflammation of the aorta. Its most common causes are non-infectious and include the large vessel vasculitis and auto-immune diseases.

Methods: An 80-year-old caucasian female presented to the emergency department with a 1-week history of fever, fatigue, cough and hemoptysis. Her past medical history was notable for vertigo accompanied by bilateral hearing loss. At admission, blood tests were remarkable for leukocytosis (21,900) with neutrophilia (88.9%) and an elevation of C-Reactive Protein (346.4 mg/L). The search for infectious causes of fever was unremarkable, with repeated negative blood and urine cultures, negative serologies for *Treponema pallidum*, *Leptospira*, *Brucella*, *Coxiella burnetii*, *Rickettsia conorii*, *Borrelia*, HIV, hepatitis B and C. Transthoracic echocardiogram was normal. Erythrocyte Sedimentation Rate (ESR) was elevated and Antinuclear antibodies (ANA) and Rheumatoid Factor (RF) were positive. On the tenth day of admission, the patient developed a bilateral red eye, with signs of conjunctivitis and chemosis. An abdominal and chest CT was performed and demonstrated a circumferential parietal thickening of the thoracic and superior abdominal aortic wall, suggestive of vasculitis.

Results: Due to the coexistence of aortitis, ocular inflammation, vertigo and bilateral hearing loss in a patient with persistent fever and elevation of inflammatory parameters, a presumptive diagnosis of Cogan syndrome was made. Steroid therapy was initiated, with resolution of fever, vertigo and laboratory abnormalities.

Conclusions: Aortitis should be considered as a possible etiology of fever of unknown origin and Cogan's syndrome suspected when the patient presents with ocular and vestibulo-cochlear involvement

PV996 / #1722

A CASE OF CATASTROPHIC ANTIPHOSPHOLIPID SYNDROME PRESENTING AS CENTRAL AND PERIPHERAL THROMBOSIS

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Case Description: A 50 year old lady presented to the Emergency Department with bilateral leg and abdominal pain. CT Angiogram demonstrated complete thrombus of the infrarenal abdominal aorta; extending to the common iliac and external iliac arteries bilaterally; an aortic stent was hence inserted. Two weeks later readmission occurred with bilateral leg pain and doppler revealed a tight stenosis at the distal aortic region- kissing stents were inserted. One month later the patient was re-admitted with bilateral leg pain and necrotic right toes, mandating a right forefoot amputation. Management subsequently included methylprednisolone, rituximab, plasma exchange, ivig and sildenafil. Two months later the patient was re-admitted with complete

Lower Limb Paralysis due to a complete thrombus of the Aortic Bi-Iliac stent. No further endovascular stenting was advised to risk of embolic seeding following medical management.

Clinical Hypothesis: A case of recurrent thromboses that underwent multiple failed endovascular stenting procedures. The treatment of this recurrent thrombosis required immunosuppression and anticoagulation.

Diagnostic Pathways: Antiphospholipid antibodies returned showing triple positivity; a triphasic finger colour change and livedo reticularis were noted on examination.

Conclusion and Discussion: We describe a case of Catastrophic Antiphospholipid Syndrome on a previously asymptomatic patient who presented with diffuse peripheral and central thromboses. Our patient suffered from intra-abdominal organ infarction and subsequent acute kidney injury, recurrent arterial and venous occlusion over a period of 12 months and previous pulmonary emboli. Catastrophic Antiphospholipid Syndrome (cAPS) accounts for less than 1% of APS and has a high mortality of 50% which means early and frequent discussion with specialist centres is important.

PV997 / #1730

UNEXPECTED CONSEQUENCES OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Case Description: This case reports a 38-year-old male, with SLE, controlled with hydroxychloroquine and azathioprine. There was no known previous acute flare of the disease. Patient presented non-productive cough, fatigue, and fever for 3 weeks. He did not show respiratory insufficiency besides having a bilateral decreased vesicular sound, more evident on the pulmonary basis. A CT scan revealed a bilateral pleural effusion, with mediastinal and abdominal adenopathy conglomerates and ground glass opacities on lung parenchyma. Blood analysis revealed slight lymphopenia, and PCR 7.21 mg/dL. A.N.A. were homogeneous titled at 1/320, with negative ds-DNA. A thoracocentesis was performed revealing an exudative non complicated pleural effusion. Due to low Sedimentation rate, initial diagnosis of pneumonia was assumed, starting treatment with piperacillin-tazobactam. After no evidence of recovery, corticotherapy was initiated, but also with mild improvement. Final diagnosis was made from a retroperitoneal conglomerate lymph node biopsy that revealed Large B cells Non-Hodgkin's lymphoma (NHL). Clinical status progressively deteriorated and even after admission on Intensive Care Unit (ICU), the patient passed away.

Clinical Hypothesis: The two initial diagnostic hypotheses were acute flare of SLE, and atypical pneumonia. The final diagnosis was NHL.

Diagnostic Pathways: The final diagnosis was made from a conglomerate lymph node biopsy.

Discussion and Conclusion: Mortality due to malignancy is not typically higher in SLE patients. However, the mortality due to lymphomas, is significantly higher in these patients. This case report alerts to the need of a rigorous investigation to discard serious comorbidities related with SLE like lymphomas.

PV998 / #1731

POSTORGASMIC ILLNESS SYNDROME : AN AUTOIMMUNE DISEASE?

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Case Description: A 59 year old male with hypertension presented with a 4 year history of episodic odynophagia, fever and rhinorrhea. Clinical presentation was always prompted by sexual intercourse and spontaneously resolved after 2-3 days. Periods of abstinence were notably symptom free. Past medical history included 3 major procedures: vasectomy 30 years prior, percutaneous epididymal sperm aspiration, and vasectomy reversal. The latter of which was performed months before the beginning of symptoms. He had no further alterations of libido or sexual dysfunction.

Clinical Hypothesis: Postorgasmic illness syndrome (POIS)

Diagnostic Pathways: WBC count and CRP serum levels were within range. Urinalysis and Prostate Specific Antigen displayed no alterations. Laboratory studies revealed a CD4 count of 980 and a CD8 count of 1180 with a CD4/CD8 ratio of 0,83. The patient exhibited an excellent response to an empirical 30 days course of hydroxychloroquine (400 mg/day) with complete resolution of the symptoms.

Conclusion and Discussion: Postorgasmic illness syndrome (POIS) is a rare disorder first described in 2002. It is characterized by flu-like symptoms which begin 3 to 7 days after the last ejaculation. There are several hypothesis to explain its pathophysiology and the most accepted theory revolves around the idea of an autoimmune process triggered by the seminal fluid. We further hypothesize that genitourinary manipulation could determine antigenic exposure promoting the disease. Inversion of CD4/CD8 ratio and the excellent response to hydroxychloroquine provide additional evidence to its immunologic nature.

PV999 / #1732

AUTOIMMUNE SYNDROME INDUCED BY ADJUVANTS (ASIA) AFTER SILICONE BREAST SURGERY – A CASE REPORT FROM NORTHEAST OF BRAZIL

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Case Description: A 33 year old woman presented with 6 months of myalgia, arthralgia, and heartburn. Progressive worsening resulted in difficulty walking and inability to work. In addition, she displayed Raynaud's phenomenon with sporadic episodes of edema and hyperemia on the 2nd right hand. Past medical history was significant for breast augmentation with a silicone prosthesis 2 years prior. She denied weight loss, headache or diarrhea. Viral serologies for dengue, CMV, Epstein Barr, hepatitis A, B and C revealed no acute infections. Treatment with Hydroxychloroquine and prednisone promoted mild improvement.

Clinical Hypothesis: Autoimmune Syndrome Induced by Adjuvants (ASIA).

Diagnostic Pathways: Laboratory tests demonstrated a coarse speckled nuclear ANA with titers of 1:1280 and increased Anti-RNP (230 U/ml), DHL (989 U/L), AST (355 U/L), ALT (1,249 U/L) and CPK (224 U/L). Total complement, C3 and C4 were normal. Persistence of symptoms after 5 years of treatment, prompted removal of silicone prostheses. Biopsy revealed presence of a lymphocytic infiltrate in the capsule wall, with lymphoid aggregates and vascular congestion. Immunohistochemistry displayed positive CD68 (KP1) and CD30 (Ber-H2) antibodies and was negative for BIA-ALCL. Symptoms and laboratory tests completely normalized 3 months after surgery.

Conclusions and Discussion: Marked improvement following silicone prosthesis removal and the presence of an inflammatory infiltrate on its biopsy reinforce the causal relation between breast augmentation and symptoms. Although rare, removal of foreign material presents itself as a valid approach for patients who fail to improve with immunosuppressors.



AS19. OTHER

PV1001 / #170

SEVERE CHOLESTATIC JAUNDICE: A CASE REPORT

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Case Description: Amoxicillin-clavulanate (AC) is frequently linked to drug-induced liver insult (DILI). Patients report pruritus and jaundice, resembling obstructive causes of cholestatic jaundice, such as tumours. Diagnosis relies on a careful anamnesis and a detailed etiological study, including a liver biopsy. A 57-year-old male presented with a subacute onset of jaundice and pruritus, preceded by abdominal pain, nausea and fever. He reported choluria, acholia, unintentional weight loss, asthenia and anorexia. He had an episode of otitis, treated with AC the week before the onset of symptoms. The physical examination showed icteric skin and sclera without scratch lesions or signs of chronic liver disease. Blood tests showed: AST 190 U/L, ALT 63 U/L, ALP 1138 U/L, GGT 252 UI/L, total bilirubin 19.2 mg/dL and direct bilirubin 6.67 mg/dL, ferritin 487 ng/mL and negative viral serologies. The computed tomography scan described pancreas with slightly globular appearance in the cephalic region.

Clinical Hypothesis: Pancreatic cancer.

Diagnostic Pathways: During the internment, he presented a fluctuating pattern of liver transaminases, with a slow resolution tendency. A liver biopsy was decided, which revealed inflammatory infiltrate of lymphocytic predominance with intrahepatic cholestasis, most predominant in the centrilobular region. Seven weeks after the onset of symptoms, the liver tests were normalized.

Conclusion and Discussion: The clinical and imagiological presentation led us to suspect a neoplastic cause. The detailed anamnesis, the negative results of the exhaustive etiological study, including a liver biopsy favouring acute cholestatic hepatitis, and the slow resolution of the liver tests established the diagnosis of AC-DILI.

PV1002 / #263

DEEP VEIN THROMBOSIS AND ADRENAL INSUFFICIENCY CAUSED BY SYSTEMIC CORTICOSTEROID THERAPY

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Background and Aims: Long-term corticosteroid therapy is liable to be complicated by adrenal insufficiency but also by deep vein thrombosis caused by a thrombogenic effect.

Methods: We report the case of a patient taking long-term oral corticosteroid therapy who was complicated by adrenal insufficiency and cerebral venous thrombosis.

Results: A 33-year-old patient, taking oral corticosteroids long-term for aesthetic reasons (desire to gain weight) presented with profound asthenia, recurrent hypoglycemia, digestive signs and severe headaches without focal neurological signs. The cortisolemia was collapsed and the diagnosis of decompensated adrenal insufficiency was performed. Cerebral MRI revealed thrombosis of the upper longitudinal sinus, the etiological investigation of which (local, infectious, thrombophilia, systemic diseases, deficiency, renal or hepatic pathologies) came back negative. Replacement treatment by hydrocortisone and anticoagulation were initiated with good progress.

Conclusions: Any patient taking corticosteroids in the long term is a potential adrenal insufficiency and can decompensate on occasion of stressful situations. Corticosteroids are also incriminated in deep vein thrombosis especially if high doses because of its thrombogenic effect, the 1st case, in 2012 is reported in a patient. 13-year-old child with multiple sclerosis presenting DVT after lumbar puncture and high dose of corticosteroids. This DVT must be evoked before any acute neurological symptom because its symptomatology is polymorphic and its diagnosis is urgent.

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PV1004 / #309

NUCLEOS(T)IDE ANALOGUE VERSUS INTERFERON IN CHRONIC HEPATITIS B TREATMENT

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Background and Aims: Treatment of chronic hepatitis B aims to control viral replication and to prevent cirrhosis and hepatocellular carcinoma. The advantages of interferon (IFN) include a finite duration of treatment, while nucleos(t)ide analogues (NAs) are well tolerated. We aimed to compare the efficacy and safety profiles of IFN and NAs.

Methods: We conducted a retrospective study in the infectious diseases department including patients treated for chronic hepatitis B between 2001 and 2018.

Results: We encountered 190 patients, among whom 131 were males (68.9%). The mean age was 40±10 years. Patients received NAs in 98 cases (51.6%) and IFN in 92 cases (48.4%). Immunocompromised host (14.3% vs 2.2%; p=0.003), diabetic patients (15.3% vs 4.3%; p=0.01) and smokers (45.9% vs 18.5%; p <0.001) were significantly treated with NAs. Patients with familial history of hepatitis B were significantly treated with IFN (40.2% vs 18.4%; p=0.001). Positive HBe antigen was noted among patients treated with NAs (12.4%) and with IFN (18.5%), with no significant difference. NAs were significantly better tolerated than IFN (97.9% vs 61.8%; p <0.001), while no significant difference was noted regarding the adherence to treatment (96.9% vs 89.9%; p=0.05). Adverse effects were significantly reported with IFN (88% vs 3.3%; p<0.001), including leucopenia (47.7% vs 4.2%; p <0.001), thrombocytopenia (43% vs 5.2%; P <0.001) and flu-like syndrome (28.7% vs 4.2%; p <0.001). Virologic failure was significantly associated with IFN treatment (35.1% vs 12%; p=0.03).

Conclusions: NAs were more efficient and well tolerated in comparison with IFN. However, can a long-term prescription of NAs promote viral mutations and lead to treatment failure?

PV1005 / #333

BODY WEIGHT DYNAMICS, CARDIORESPIRATORY FITNESS, CHRONOTYPE AND DIETARY HABITS AMONG MEDICAL STUDENTS

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Background and Aims: Low physical activity and unhealthy diet are the most prevalent factors related to the health. Previous studies suggest association between obesity and evening chronotype. We aimed to examine the weight change, cardiorespiratory fitness, chronotype and dietary habits in the last year medical students.

Methods: Students (n=98; 66 females and 32 males) aged 23-25

years during lockdown in spring 2020 completed survey including questions related to eating habits, body weight dynamics and online Horne-Ostberg morningness-eveningness questionnaire. Danish step test has been done online <https://www.health-calc.com/fitness-tests/the-danish-step-test>.

Results: The mean body weight in females increased (M±SD) from 57.6±9.6 to 61.2±10.5 kg (p=0.043), in males from 74.9±12.5 to 82.6±13.2 kg (p=0.023). Weight gain >2% from the first to the last semester reported 76.5 % of males and 62.5 % of females, weight loss >2% - 20.5 and 23.5 % of students. The most prevalent chronotype was intermediate (66.7% of males and 59.4% of females). Fitness was normal in females and slightly lowered in males. Every day consumed carbonated drinks 20.6% of males and 11.8% of females; and fruits, accordingly, only 54.5 and 57.5%. Correlation analysis revealed negative relationships of fitness with weight and fast food consumption in both sexes and positive - with fruit consumption in females. Evening type individuals had significantly lower cardiorespiratory fitness.

Conclusions: Future doctors are at risk of well-known risk factors while studying in the university. The more intensive educational programs should be promoted regarding physical activity, dietary behaviours and sleep/wake timing.

PV1006 / #379

A BOLT FROM THE BLUE: WHEN INTENTIONAL DRUG OVERDOSE TAKES MORE THAN ALCOHOL AND PILLS

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Background and Aims: Suicidal attempts are a relatively common phenomenon. With the advent of the COVID-19 pandemic suicide rates are expected to increase. In women, drug overdose is the most common method used; however, in some cases more than one method is used, in what is called a complex suicide. This is most often seen in males and usually involves at least one violent method.

Methods: We present a case of a suicidal attempt in a middle-aged woman with an unusual combination of methods.

Results: A 57-year-old female patient presented to the emergency department after intentional drug overdose, along with alcohol ingestion. She had history of histrionic personality disorder, previous suicidal attempts and marital problems. Her abdomen was tender on palpation, which she attributed to having ingested bolts years before. An abdominal radiograph showed several bolts in the hepatic flexure and rectal ampulla. Her previous exams showed the presence of bolts on her last admission for a suicidal attempt, with a later exam showing full resolution and proving the bolts had been newly ingested for the current episode. The patient remained stable and without need for surgical intervention. A later radiograph showed spontaneous passage of some bolts.

Conclusions: Perforating object ingestion is an uncommon method

used for suicide, though it has been associated with emotional stressors in the form of pica. We presented a case of a complex suicidal attempt carried out by drug overdose and ingestion of bolts. This highlights the importance of not dismissing patient complaints and clues in finding potentially overlooked threats.

PV1009 / #404

AN USUAL SITE OF CALCIFICATION: CALCIFIC TENDINITIS OF THE TIBIALIS ANTERIOR

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Background and Aims: Calcific tendinitis is a soft tissue disorder most commonly seen in rotator cuff tendons. It that can lead to pain and swelling of the affected region, and misdiagnosed as sequela of osteomyelitis or fracture malunion. Making the differential diagnosis is important to correctly manage the patient and prevent further tissue and function loss. Here, we present a case with calcific tendinitis of tibialis anterior with its challenging radiological image in anterolateral cruris.

Methods: A 56-year old female patient with pain and swelling in the right ankle and cruris, and inability to walk is presented.

Results: The patient claimed no significant discomfort until the last 6 months, when the symptoms began and were aggravated there on. Previous history revealed a right distal tibial fracture and malunion 40 years before, which was managed conservatively. Physical examination revealed swelling, tenderness and mild warmth over distal anteromedial cruris. Erythrocyte sedimentation rate and C-reactive protein were mildly elevated. The plain X-ray demonstrated a huge, well-defined calcification in anterolateral cruris about 25 cm in length and 3 cm in width. Distal tibial deformity with distal tibiofibular synostosis and distal tibial metaphyseal lytic-sclerotic regions were present (Image). The patient underwent surgery which exposed the calcific tissue and the necrotic pouch causing the soft tissue swelling.

Conclusions: We presented a case of calcific tendinitis in an unusual site. Inquiring the history of trauma is important to guide the diagnosis. Accurate diagnosis of soft tissue calcification is vital in order to exclude disorders such as osteomyelitis, malignancies and myonecrosis, and manage the patient properly.

PV1010 / #420

CURRENT PERSPECTIVES ON POST MORTEM EXAMINATION

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Background and Aims: There is a worldwide decline in consented post-mortem examination rates^{1,2,3}. Aim To evaluate the knowledge, attitude and perception of post-mortem examination among staff members in a Model 3 hospital.

Methods: A Google forms survey was distributed to all STGH clinical staff via email. The survey was based on previously published work. Participation was voluntary. Results were tabulated using Excel and analysis was by simple descriptive statistics.

Results: 53 doctors, nurses and staff members participated. Twelve incomplete responses were discarded. The mean (SD) age of respondents was 45.1 (11.6) years. Female to male ratio was 6:1. 70% were Christian and 17% were Muslim. There were more nurses than doctors and Health and social care professionals (44% vs 39% vs 17%). Almost 80% of respondents had good knowledge and expressed positive attitudes towards post-mortem examination, which was higher than previously published work⁴. Ten per cent were not willing to consent or counsel for a medically recommended post mortem examination for a family member. Lack of adequate information on the reason for post mortem and fear of mutilation (65.8% and 63.4% respectively) were the two most commonly selected reasons for the decline. Most (88%) support the use of CT or MRI post mortem as a diagnostic tool. Knowledge rates for minimally invasive autopsy were low at 34%.

Conclusions: There is a need to improve rates of post-mortem examinations. Although this is a small study with selection bias, the information collected should inform awareness campaigns aimed at increasing the post mortem rate.

PV1011 / #423

ULTRASONOGRAPHY IN INTERNAL MEDICINE - EDUCATIVE NEEDS AND CAPACITIES

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Background and Aims: The point-of-care ultrasound (POCUS) in Internal Medicine is growing rapidly. Recently, a position paper by the ultrasound working group of the European Federation of Internal Medicine was published, pointing to a framework for training programs at a national level. For this investment to be successful the authors evaluated the state of the art of POCUS in Portugal.

Methods: A query was developed and validated by international experts in ultrasound. Through a national database, the query was distributed between January and March of 2020. The query had three parts: Career Status, Interest and Education, Education Needs and Capacities (17 main questions).

Results: 283 answers were submitted: 56% were from residents and 44% from senior internists. 67% of the inquired had already done ultrasound training and 92% had interest in having more. Regarding specialized internships, 42% answered already having been in one while 96% stated that it would be pertinent to the development of an official internship in ultrasound in the country. 64% of the inquired revealed they have ultrasound equipment available in the emergency department while 47% have it in the ward. When asked to classify the importance of ultrasound in the daily medical practice from a 0 to 10 scale, 88% gave answers equal or greater than 8.

Conclusions: There is evidence of a considerable interest in POCUS by portuguese internists and an overall consensus that there is the need for an official internship in ultrasound. These results at the national level could leverage the development of teaching centers and certifying programs.

PV1012 / #433

AN ATYPICAL FRACTURE IN A YOUNG LADY

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Background and Aims: Secondary osteoporosis is defined as low bone mass with microarchitectural alterations in bone leading to fragility in the presence of an underlying disease or medication. It is important to exclude secondary causes of osteoporosis as the treatment of these patients may differ.

Methods: We presented the case of a 29-year old lady diagnosed of type 1 diabetes 6 years ago. No other diseases and no fractures in her medical history. She was admitted to the emergency department after an accident while she was driving an electric scooter. In the exploration room, swelling of the proximal third of her left shinbone was objectived, with concave deformation of the infra-patellar region. Nervous and vascular system was not damaged. An x-Ray was performed and was finally diagnosed of tibial plateau fracture Type VI Schatzker. She went under surgery with osteosynthesis with double plate. After surgery, she was interrogated again about the mechanism of fracture, concluding that was a low impact accident which in an young lady should not produce a bone fracture. A densitometry was performed giving the diagnosis of severe osteoporosis (T-Score < 2,5)

Results: Secondary osteoporosis should be considered in patients with fragility fractures or low bone mass. Diabetes has a negative impact in bone metabolism and diabetic patients are at risk of suffering fragility fractures. Evolution of the disease, insuline use and some medications like glitazone are prone to cause osteoporosis.

Conclusions: Osteoporosis should be suspected in case of low impact fractures In diabetic patients, osteoporosis should be ruled out in case of fracture

PV1014 / #555

A RARE MANIFESTATION OF AN UNUSUAL DISEASE

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Background and Aims: Amyloidosis is mainly a systemic disease. Primary localized amyloidosis in the head and neck region is a rare entity. Primary amyloidosis localized to the sinonasal tract is extremely rare. Symptoms may include epistaxis, nasal obstruction, facial deformity and vision changes.

Methods: A 72-year old female presented with recurrent episodes of bilateral nasal obstruction, tinnitus and bilateral hearing loss with 2 years evolution.

Results: Medicated symptomatically without improvement. Otoscope and Tympanometry without changes. Contrast enhanced CT scan revealed lymphoid tissue occupying the cavum. A nasofibroscopie with biopsy was scheduled revealing "at the posterior end of the floor of the right nasal cavity, a vegetating lesion that extends to the lower contour of the choana; pharyngeal cavum presents hyperplasia of the lymphoid tissue, with small calcifications on the surface." Due to the presence of calcifications there was a suspicion of malignancy but histopathological examination (Congo red staining of the specimens revealed apple-green birefringence) confirmed amyloidosis. After an extensive evaluation workup that included complete blood work with thyroid function, electrophoresis, abdominal fat biopsy, echocardiogram, renal and abdominal ultrasound, no evidence of systemic amyloidosis was found.

Conclusions: Localized amyloidosis is a benign, slowly growing process that can be treated with radiation therapy or surgery. Its diagnosis can be difficult due to the unspecificity of symptoms. Progression to systemic disease is rare but a proper diagnosis is crucial since systemic amyloidosis requires more intensive management. Although it is a rare condition, suitable approach and subsequence treatment can substantially improve the patients quality of life.

PV1015 / #638

ON ODONTOLOGICAL PATHOLOGY AND THERAPY

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Background and Aims: Actually in Germany will be discussed about complex pathology of Bert SAKMANN (Nobel-price together with Erwin NEHER), because it appeared sepsis, caused by dental infection leading to complex antibiotics/cardiovascular/surgical-treatment. Presently is considered new information conc. prevention/therapy of dental pathology.

Methods: Observations about diagnosis (X-rays) & therapy in dental -practices (n >30patients)^[2-3].

Results: Laser are used for therapy of caries dentium and periodontitis (e.g. hard-laser, such as Erbium:YAG 2940 nm+1064 nm/Fotona and diode laser 810 nm/ARC). Similar to considered patients in earlier reports it is possible to prevent pulpitis, i.e. treatment of radix dentis or extraction of teeth. Dental vitality (vascular&neuro-regulation) is maintained, by combined dental therapy, i.e. laser & conservative incl. bacteriostatic-bactericide (antibiotics, phyto-pharmacological), diet,etc. This way tooth of patient was eliminated spontaneously (without problems, see introduction). Also phototherapy (laser 810nm/ARC) of periodontitis prevented dangerous pathology of senior (cardiopathy,etc.).

Conclusions: Future needs paradigm changes in policy leading to an integrative internal medicine an example of dental pathology & therapy related to combined photo-&conservative-therapy which could help for better dental treatment & prophylaxis, reduction of enormous financial basis in odontology, help for developing countries in accordance with UNO-Agenda21 for better health-education-ecology-economy on global level^[1-4].

Michailov, Neu, Joseph et-al.:

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PV1016 / #641

BUBBLE TROUBLE

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Background and Aims: Bullous pemphigoid is the most common autoimmune bullous dermatosis in Western Europe. It is a chronic disease, with spontaneous exacerbations and remissions and, consequently, significant morbidity. It affects both female and male patients over 60 years old. Possible risk factors comprise the introduction of new drugs such as penicillin and the existence of pathologies such as diabetes mellitus or neurological diseases.

Methods: An 83-year-old female patient, dependent, with antecedents of Alzheimer's and dyslipidemia, with no known allergies, developed vesicles in the axillary region and glutei over 1 week of evolution. The patient had been medicated with amoxiclav, without improvement, and later with flucoxacillin and topical corticotherapy for 1 week. The patient was again brought to the ER after the tense bullous lesions of sero-hematic content, some of which pruritic, on erythematous plaques, spread over the entire body, except the face and mucous membranes. The physical examination and blood analysis showed no other major changes. The patient was admitted to the Medical Service for treatment.

Results: Observation by Dermatology was requested, skin biopsy was undertaken and oral corticosteroid therapy was initiated plus topical fusidic acid and zinc oxide and antihistamine. A gradual improvement of the condition was observed, with progressive reduction of corticosteroid therapy and histological confirmation of Bullous Pemphigus.

Conclusions: Although skin pathologies are inherent to Dermatology, this clinical case demonstrates the importance of other physicians knowing and understanding them. This allows an early diagnosis of these types of pathologies and the beginning of the correct treatment in a timely manner.

PV1017 / #683

MEDICATION ADHERENCE AND HEALTH-RELATED QUALITY OF LIFE IN ELDERLY PATIENTS ON MULTIDRUG REGIMENS.

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Background and Aims: Multiple medication use is common in elderly patients and of particular concern as it increases the risk of medication non-adherence and consequently poor clinical outcomes. We conducted a study of polypharmacy, medication adherence and health-related quality of life (HRQoL) in multimorbid elderly outpatients, all on multidrug regimens, and examined their pairwise associations as well as the ones with patient characteristics.

Methods: 182 old patients, all on ≥ 5 medications daily, completed the following questionnaires: one on their sociodemographics, morbidities and treatment regimens, the Belief about Medicine Questionnaire (BMQ-General Part), the Morisky Medication Adherence Scale 8-item (MMAS-8), the Lawton-IADL scale, and the EQ-5D-5L instrument.

Results: Hypertension was the most prevalent morbidity (78%), followed by dyslipidaemia (47.3%), CKD (38.5%), diabetes (36.3%) and CVD/CVA/PVD (35.2%). Most of the patients (69.3%) were receiving 5 or 6 medications daily; 21% were taking ≥ 10 medication doses daily. The majority (54.1%) believed drugs were overused, but were not harmful (72.1%). 48.9% of them showed low medication adherence, 27.5% moderate and 23.6% high. Adherence showed negative correlation with the number of drugs ($r=-0.249$). HRQoL was negatively correlated with the number of comorbidities ($r=-0.241$), medications ($r=-0.292$) and pharmaceutical doses ($r=-0.291$), and positively with adherence ($r=0.311$) and the IADL score ($r=0.321$). Women had lower HRQoL. Low education level was associated with polypharmacy, low IADL score, and poor HRQoL.

Conclusions: Polypharmacy is significantly associated with poor medication adherence and both are related to low HRQoL. Sociodemographic parameters undermine the optimal use of drugs and HRQoL.

PV1019 / #817

IATROGENIC VS VIRAL ACUTE HEPATITIS

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Background and Aims: Contrast induced nephropathy is already well known, however, little to none literature exists regarding contrast hepatitis. Hepatitis might also be caused by certain drugs and viruses.

Methods: Our case is a 86-year-old woman, dependent, scarce relational life, brought to the ED for prostration and food refusal.

She had psychiatric medication adjustment the previous week, with introduction of risperidone and lorazepam. She showed room air SatO₂ 88% and abdominal pain. Lab values: AST 53 U/L (1.5x), ALT 20 U/L, alkaline phosphatase (AP) 129 U/L (slightly above upper value) GGT 24 U/L, LDH 871 U/Lm creatinine (Cr) 1.5 mg/dL and leukocyturia. In the same day, the patient performed head, abdominal and pelvic CT, separately and with contrast media in 2 of them, associated with ceftriaxone for leukocyturia. Psychiatric drugs were suspended.

Results: In the following days, there was a worsening of the lab values: Cr 1.75, Na 151 mmol/L, AST 102 \pm 1166, ALT 32 \pm 867, LDH 1171 \pm 5477, GGT 27, AP 124 and NTproBNP 33,468 pg/mL. Ceftriaxone was suspended and began investigating the etiology of the hepatitis. Ultrasound showed mild hepatic steatosis; ASMA+, EBV IgG+/IgM-, HBV antigen HBs-/ab HBs+/ab HBc+, CMV IgG+/IgM-, HSV 1 IgG+/IgM-, Adenovirus IgG+/IgM+. During hospitalization, the maximum values were AST 1356, ALT 2130, GGT 64, AP 136 and LDH 5477, with progressive improvement and normalization on the 8th day. Nevertheless, the patient aggravated and deceased, not being possible to conclude the investigation.

Conclusions: This case describe the possible diagnosis of contrast or drug (risperidone or ceftriaxone) induced hepatitis versus adenovirus hepatitis, and has the purpose of reminding us that our attitude/diagnostic and treatment course have side effects towards the patient.

PV1020 / #926

THE ASSOCIATION BETWEEN VITAMIN D DEFICIENCY AND URINARY TRACT INFECTION IN POSTMENOPAUSAL WOMEN

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Background and Aims: We aimed to examine whether there is any association between serum levels of 25-hydroxyvitamin D [25(OH)D₃] and urinary tract infection (UTI) among postmenopausal women.

Methods: Age, postmenopausal period, body mass index (BMI), White blood cell count, serum C-reactive protein, calcium, phosphorus, alkaline phosphatase, parathormone, serum 25(OH)D₃ levels and native urine. specimen were measured in 124 postmenopausal women without signs of UTI, on regular gynecological checking.

Results: 124 women average age of 53.4, with period of 3.5 year after last menstruation were included, 65 had UTI and they were symptom free, other 58 had normal urine. The mean serum levels of 25(OH)D₃ among woman with UTI were significantly lower than those of controls (11.7 \pm 3.1 vs. 26.5 \pm 4.2 ng/ml; $p < 0.001$). The serum levels of 25(OH)D₃ were significantly lower in patients with UTI compared to patients without (7.7 \pm 2.6 vs.

13.9±2,9 ng/ml; p <0.001). Within the study group, mean serum levels of 25(OH)D3 among women with greater BMI >30,0 were lower than those of under it (11.9±3.7 ng/ml vs. 14.7±4.8 ng/ml; p <0.001). *Escherichia coli* predominated 51.2%; *Klebsiella pneumoniae* 38.2% and *Proteus vulgaris* 10.6%. The frequency was inversely related to the level of vit D. Multivariate analysis showed that the BMI did not correlate with UTI.

Conclusions: Our results suggest that vitamin D deficiency may be a risk factor for UTI in postmenopausal women.

PV1021 / #959

PARAINFLUENZA 2 AND AUTOIMMUNE HEMOLYTIC ANEMIA: AN UNKNOWN ASSOCIATION?

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Background and Aims: Autoimmune hemolytic anemia (AIHA) is a rare type of anemia. There are many causes for this condition, from medications to infections. The diagnosis is challenging, as reported in this case.

Case Description: Male, 75 year-old, with known pulmonary chronic disease, hypertension and diabetes. Admitted to hospital with marked asthenia and dyspnoea. History of productive cough three weeks before, that resolved without antibiotics. In the ER, a severe anemia (6.7 g/dL) was found. The patient denied any blood losses. An undetectable haptoglobin, high LDH and bilirubin added to a positive direct anti-globulin test, suggested AIHA diagnosis. Therapy with prednisolone (1 mg/kg/day) was initiated. Lymphoproliferative disorders were excluded from the investigation, as well as serologies for HIV, HBV and HCV which were negative. PCR for viral RNA search was performed, isolating Parainfluenza 2. In this case, there was a confounding factor, as the patient recently started taking metildopa, known as a cause of AIHA. However, there was a close relationship between the onset of respiratory symptoms and the anemia diagnosis.

Results: The patient had a favourable evolution, as hemoglobin arised to 8.7 g/dL after a few days of treatment. He was discharged under prednisolone in the recommended dose, followed by a slow tapering.

Conclusions: Although parainfluenza 2 has not been previously described as a cause for AIHA, in this case, there was a clear temporal association between the onset of respiratory symptoms and the diagnosis of AIHA. This warns us for a possible new etiologic agent for this condition.

PV1023 / #975

RED MAN SYNDROME

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Background and Aims: Red Man Syndrome is the adverse reaction to vancomycin, typical relates to parental administration and rate infusion. Some drugs such as opioid analgesic and muscle relaxant predispose this reaction.

Methods: We report a case of a red man syndrome.

Case description: An 80-year-old male with past medical history of arterial hypertension and type 2 diabetes mellitus was admitted into intensive care unit with multiple organ dysfunction syndrome secondary to a nosocomial bilateral pneumoniae (neurological, respiratory, cardiovascular and renal dysfunction). Sedation, analgesia with opioid and neuromuscular blockade was established. The patient was adapted to invasive mechanical ventilation and initiated vasopressor support. Due to refractory metabolic acidemia, continuous renal replacement therapy was initiated. At admission he started empiric antibiotic, namely piperacillin+tazobactam 4.5 g qid and vancomycin on continuous infusion. On day 3 the patient developed an extensive erythematous rash on face, neck and upper-body. The serum total immunoglobulin E was on a range considered normal. This was identified as Red Man Syndrome secondary to vancomycin and anti-histaminic therapy was started with dissipation of erythema.

Conclusions: Red Man Syndrome are more common in rapid infusion and on the first administration, although can occur in slow infusion rates and after several days.



#975 Figure

PV1024 / #994

SEVERE HYPOCALCEMIA INDUCED BY ZOLEDRONIC ACID - CASE REPORT

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Background and Aims: Intravenous bisphosphonate are usually safe and are used in the management of metastatic and metabolic bone diseases, hypocalcemia cancer-related, osteoporosis and Paget's bone disease. Although infrequently, hypocalcemia may occur and is usually asymptomatic, however could lead if untreated to life-threatening situations.

Methods: We report a case of a 79-year-old male who was treated with zoledronic acid due to Paget's bone disease.

Results: A 79-year-old male, came to the emergency department with a 3 weeks course of fatigue, loss of appetite, lethargy, gait difficulty and desorientation for a few hours. One week before the onset of symptoms he was treated with zoledronic acid due to Paget's bone disease. At admission he presented alteration of consciousness with progressive mental deterioration. Laboratory tests revealed a serum creatinine of 2.39 mg/dl and an ionized calcium of 0.54 mmol/L. On electrocardiography, corrected QT interval was prolonged. Later, serum 25-hydroxyvitamin D showed immeasurable levels and parathyroid hormone level was 270 pmol/L. The patient was diagnosed with severe hypocalcemia induced by zoledronic acid, severe vitamin D deficiency and secondary hyperparathyroidism. In spite of vigorous and continuous supplying of intravenous and oral calcium and vitamin D, ionized calcium concentration had a very slow improvement with a level of 0.95 mmol/L in 7 weeks after hospital admission. Unfortunately, he never recovered his prior status and was discharged after 49 days with significant neurological compromise and loss of autonomy.

Conclusions: This case emphasizes the importance of evaluating renal dysfunction, vitamin D, calcium and PTH levels, prior bisphosphonate treatment. Although vitamin D and calcium supply it's not mandatory it's highly recommended.

PV1026 / #1032

EVALUATION OF INFECTIONS IN INTERNAL DISEASES INTENSIVE CARE

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Background and Aims: Intensive care; these are clinics with high morbidity and mortality in which critical patients are diagnosed, treated and closely followed up. In our study, we aimed to evaluate the factors affecting the development of infections detected in patients with different clinical conditions that we hospitalized in the intensive care unit on behalf of Internal Diseases and their effect on survival.

Methods: 605 patients with no initial diagnosis of septic shock were evaluated retrospectively from 691 patients who were admitted to the Intensive Care Unit of Internal Medicine for 1 year.

Results: of the 605 patients, 343 were men, 262 were women, and the mean age was 67.04±15.2 years. When the distribution of infection rate according to sub-units was evaluated, blood and sputum culture growth was significantly higher in patients in the medical oncology and hematology departments, and the mortality rate in these cases was higher than other units. Other factors affecting the development of infection in intensive care patients were the length of stay, the duration of intubation, the need for vasopressor support, and the provision of invasive and non-invasive ventilation support.

Conclusions: Intensive care units are hospital departments where patients with severe clinical picture are monitored, invasive procedures are applied most intensively, nosocomial infections are most common, and mortality and hospital stay are the highest. Although hemodynamic status and comorbid diseases at the time of admission to intensive care are important in survival, duration of intensive care stay and development of infection are important factors affecting mortality.

PV1027 / #1034

CAN A PATIENT BE LOCKED AFTER URINARY TRACT INFECTION? - UNEXPECTED OUTCOME FOR A COMMON INFECTION

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Case Description: Female, 67 year old, mRankin scale 1, Type 2 Diabetes, hypertension, previous stroke with right arm paresis sequel and anaemia, admitted in the medicine nursery with cystitis. On the 3rd day was found non-reactive: Glasgow Coma Scale of 5 with tetraparesis and anarthria, maintaining eye movement and blinking. Last time seen well in the night before. Airway preserved, vital signs stable.

Clinical Hypothesis: Considering clinical presentation and neurological findings, Ischaemic Stroke with a possible Locked-in syndrome (LIS) associated was suggested.

Diagnostic Pathways: Brain CT showed mesencephalic and protuberance hypodensity compatible with recent ischaemic lesions in the basilar perforating branches territory. NIHSS:25. Neurological evaluation compatible with LIS. Fibrinolysis or thrombectomy weren't performed. Patient was admitted to stroke unit and initiated rehabilitation. Remained without verbal response, not following orders, quadriplegic, with nasogastric tube. After, was transferred for a long time care unit. mRankin scale at discharge: 5.

Conclusion and Discussion: LIS is a rare condition resulting from a lesion in ventral pons, leading to a state of quadriplegia and

complete paresis, with preservation of vertical eye movements, blinking and basal cognitive functions. Occlusion of the basilar artery is the most common cause. The authors show a case of catastrophic outcome, wherein initial urinary tract infection turned into a LIS, secondary to basilar artery occlusion. In LIS, mortality ranges are high. However, after medical stabilization and rehabilitation, 10 years survival can reach 80%. Professionals must be familiarized with this syndrome, in order to diminish the risk of miss or late diagnosis.

PV1028 / #1045

IS CANNABIS SAFE FOR MY PATIENTS? A REVIEW OF SAFETY CONSIDERATIONS FOR MEDICAL CANNABIS

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Background and Aims: Medical cannabis is increasingly used worldwide. Clinicians are commonly asked by patients to provide guidance on its safety and efficacy. There has been an increase in research on the role of medical cannabis for a number of different conditions. We found that there was a paucity of clear safety guidance on medical cannabis use. We aim to address this issue by providing guidance by answering two pertinent medical cannabis safety questions: 1) Can medical cannabis be safely used in this patient? 2) What strategies can be used to ensure that any harms from medical cannabis are mitigated?

Methods: To address these questions we reviewed the available evidence, in addition to expert clinical opinion to summarize the fundamental components for evaluating cannabis safety and strategies to reduce risk from cannabis use.

Results: Our review resulted in a safety-focused framework for medical cannabis initiation and utilization. We provide clear recommendations for patients being considered for cannabis (e.g. precautions, contraindications and drug interactions). Risk mitigation strategies such as appropriate chemovar (strain) selection, routes of administration, and dosing are reviewed in detail. As with any pharmacotherapy, we review key components of monitoring and address potential issues that may arise while using medical cannabis. We propose a structured assessment and monitoring strategy for clinician use to guide patients through each step of their cannabis journey.

Conclusions: This framework can be used to ensure medical cannabis utilization is done at the lowest possible risk to the patient. We feel that this structured approach can improve safety and ultimately lead to better patient outcomes.

PV1029 / #1114

PORTAL VENOUS GAS AND PNEUMATOSIS INTESTINALIS

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Case Description: A 66-year-old man with a history of draining pancreatic cyst was observed in the emergency department with diffuse abdominal pain associated with, food vomiting, and constipation. He was dehydrated, afebrile, hypotensive, and tachycardic. The abdomen was diffusely painful on palpation, tympanized with rare hydro-aerous noises, without signs of peritoneal irritation. Throughout the day the clinical condition worsened, with an increase in serum lactate, and increased abdominal discomfort. He remained conscious and collaborative. He underwent abdominal computed tomography, (CT) which showed important hydro-aerial ectasia of small bowel and stomach associated with exuberant intestinal and portal pneumatosis, suggesting associated ischemic alterations. A worsening clinical picture with no response to the implemented measures culminated in death.

Clinical Hypothesis: Intestinal pneumatosis (IP) can be idiopathic or secondary to a wide range of pathologies but is mandatory to rule out the most common diagnose in an acute setting of abdominal pain: intestinal ischemia.

Diagnostic Pathways: Complete medical history, physical examination, blood gas test, laboratory studies and abdominal imaging.

Conclusions: Importance of high clinical suspicion in diagnosing a mesenteric ischemia is fundamental. The reported case shows an extreme case of irreversible pneumatosis that we should always try to avoid. Attention should be offered to a patient with this suspicious diagnose from the beginning with a blood gas and laboratory exam as soon as possible, that should be followed by



#1114 Figure

an adequate resuscitation fluid therapy and antibiotics associated with a definitive surgical therapy (endovascular or laparotomic) when indicated, after the fundamental diagnostic abdominal angiotomography imaging scan.

PV1030 / #1135

EXANTHEMATOUS DRUG REACTION: A CASE OF HYPERSENSITIVITY REACTION TO CIPROFLOXACIN

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Case Description: A 45-year-old man with type 2 Diabetes Mellitus and dyslipidemia presented to the hospital with myalgias and exanthematous eruptions on the trunk and limbs that appeared one day after initiating treatment with ciprofloxacin for an urinary tract infection. He denied fever, arthralgias and pruritus. On examination, erythematous and purpuric macules and papules were scattered through the limbs, abdomen and thorax, sparing mucous membranes. Laboratory showed an erythrocyte sedimentation rate of 60 mm/h; an elevated IgA and IgE levels. The remaining tests were normal.

Clinical Hypothesis: The appearance of cutaneous eruptions after ciprofloxacin initiation was suggestive of toxicoderma. However the purpura and elevated IgA rose the suspicion of IgA Vasculitis.

Diagnostic Pathways: Histology revealed inflammatory infiltrate and focal leukocytoclastic vasculitis, supporting the diagnosis of toxicoderma. The patient suspended ciprofloxacin and started treatment with prednisolone, with resolution of the exanthema in 2-3 weeks.

Conclusion and Discussion: Cutaneous reactions might have various etiologies, from drug-related rashes to infections or systemic diseases. They are the most common type of drug hypersensitivity reaction. A maculopapular exanthema occurs in 2-3% of patients taking fluoroquinolones and <1% with ciprofloxacin, generally without fever, mucosae or systemic involvement. Incidence is higher in women. Diagnosis is sometimes delayed by confounding factors that may rise other diagnostic hypothesis. History, clinical features and laboratory findings can support the diagnosis. Histology is nonspecific, but skin biopsy should be considered when doubts and severe symptoms occur. Drug withdrawal constitutes the keystone of treatment. Systemic glucocorticoids are not recommended, but may be beneficial in severe cases.

PV1031 / #1142

HYPOMAGNESEMIA – ONE CAUSE TO REMEMBER!

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Case Description: A 71-year-old female presented with diarrhea lasting 5 days and asthenia. Past medical history of rheumatoid arthritis, arterial hypertension, hypertrophic cardiomyopathy, and chronic gastritis, treated with leflunomide 10 mg, deflazacort 6 mg, esomeprazole 40 mg, carvedilol 25 mg, and spironolactone 12.5 mg. At admission, she was dehydrated, without other physical changes. Lab results revealed leucocytosis with neutrophilia, increased C-reactive protein, hypomagnesemia, hypocalcemia, and hypokalemia.

Clinical Hypothesis: A presumption of diarrhea as the cause of hypomagnesemia was made, with secondary hypocalcemia and hypokalemia.

Diagnostic Pathways: She was started on ciprofloxacin, iv hydration and electrolyte supplementation with an adequate response. However, after resolution of diarrhea and under oral supplementation, her magnesium levels fell repeatedly. After excluding other causes for hypomagnesemia, chronic use of proton-pump inhibitors (PPIs) was considered as a plausible cause, and therefore PPI was discontinued, with normalization of magnesium levels.

Conclusion and Discussion: Hypomagnesemia is a common disturbance, mainly caused by diarrhea, gastrointestinal malabsorption, medications, alcoholism, and volume expansion. Clinical manifestations include neuromuscular symptoms, cardiovascular manifestations, and hypokalemia. Changes in calcium metabolism are also frequently seen, with hypocalcemia present in severe cases, either by hypoparathyroidism or by parathyroid hormone resistance. PPIs-related hypomagnesemia has been described in the latter years, particularly in chronic use cases and with a medium prevalence of 27%, but further studies remain necessary to clarify its pathophysiologic mechanism. Since PPIs are widely used, it is essential to be aware of hypomagnesemia as a possible side effect, particularly in refractory cases and after excluding other common causes.

PV1033 / #1278

WIDENED MEDIASTINUM AS AN ACCIDENTAL FINDING

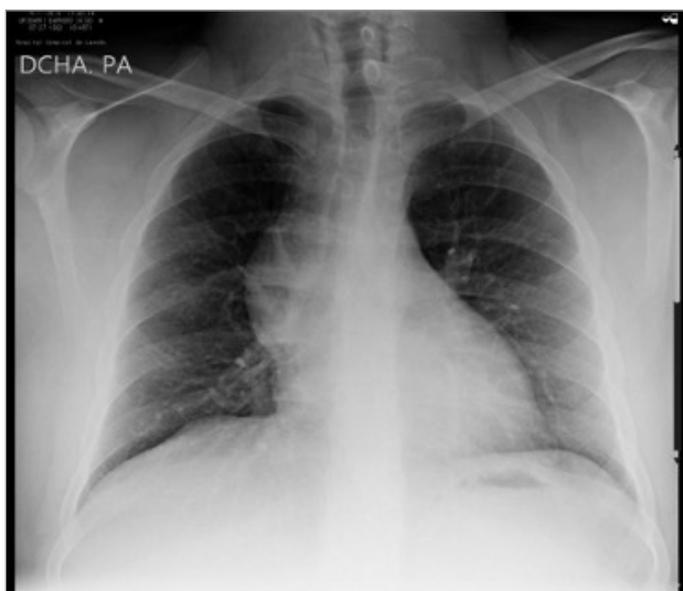
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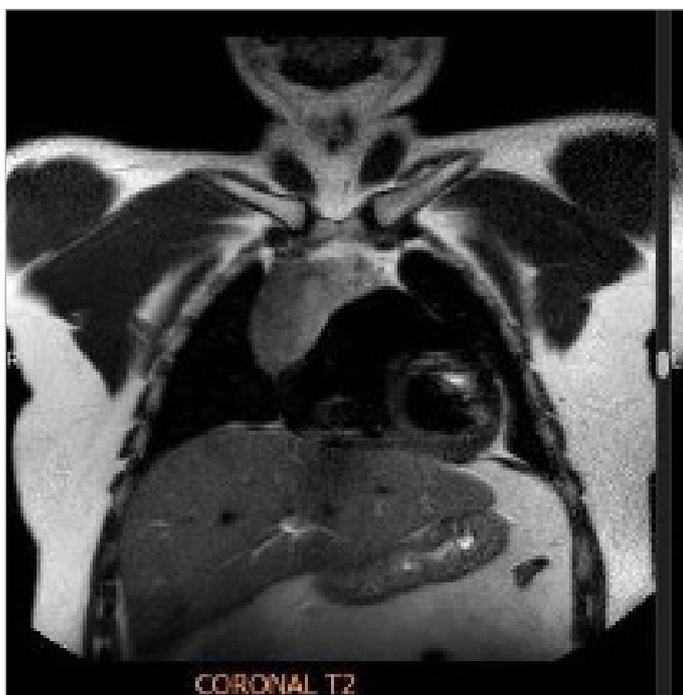
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Background and Aims: Widened mediastinum can be an accidental finding in patients who undergo a chest x-ray obtained prior to elective surgery or as part of the evaluation of an unrelated condition. History and physical examination supplemented by laboratory test and mediastinal mass location on imaging studies helps narrow the possibilities of differential diagnosis. If symptoms are presented they are related with direct mass effect



#1278 Figure 1



#1278 Figure 2

of the mediastinal anomaly or systemic effects of the illness. Take a full history and clinical examination are needed, focusing on the symptoms and signs that are more often associated with mediastinal masses. Tumor markers can support a presumptive diagnosis in some anterior mediastinal masses. Chest computed tomography can confirm the presence of a mediastinal mass and provide detailed information about location, size, relationship to other structures and tissue characteristics. A definitive diagnosis generally requires a tissue samples.

Methods: A 27-year old man was admitted in emergency room with a 4 hours history of chest pain and cough whitin. No other symptoms were presented. Clinical examination was normal. Blood count and biochemistry did not show alterations. Chest

X-ray (Figure 1 #1278) showed a widened mediastinum. A chest-CT showed an anterior mediastinal mass of 5,7x5,1x8,1 cm without lymphadenopathys. MRI-scan (Figure 2 #1278) corroborated a mass located in the anterior mediastinum. Anti-acetylcholine receptor antibodies, alpha-fetoprotein, beta-human chorionic gonadotropin and lactate dehydrogenase revealed no abnormality.

Results: A computed tomography-guided biopsy was performed and It demonstrated a type B1 thymoma. He was referred to division of Thoracic Surgery.

Conclusions: A widened mediastinum should be investigated.

PV1034 / #1293

MARKERS OF CHRONIC INFLAMMATION IN OVERWEIGHT AND OBESE INDIVIDUALS AND THE ROLE OF GENDER: A CROSS-SECTIONAL STUDY OF A LARGE COHORT

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Background and Aims: Obesity being an epidemic, is now considered a state of low grade inflammation. The purpose of this study was to assess the prevalence of four common elements of inflammation, in individuals with increased BMI.

Methods: Cross sectional analysis was carried out on 7526 men and 3219 women attending a screening center in Israel. White blood cell count (WBC); platelet (PLT) count; erythrocyte sedimentation rate (ESR) and C- reactive protein (CRP) were assessed in four BMI categories: normal, overweight, obese and morbidly obese.

Results: Mean (SD) age of the study sample was 47.5 (9.7) and 46.7 (9.8) years for men and women respectively. The prevalence of each inflammatory marker increased significantly when comparing abnormal to normal BMI ($p < 0.0001$). The odds ratio (OR) of the prevalence of increased inflammatory markers was compared between subjects with increased BMI and subjects with normal BMI and showed that the higher the BMI, the higher the OR. In the morbid obesity group, the OR for the different inflammatory markers adjusting for age, diabetes mellitus and kidney function were: WBC levels, 5.8 (3.4-9.8) and 5.0 (2.6-9.6); PLT levels, 1.6 (0.3-8.1) and 2.0 (0.6-7.1); ESR levels, 4.3 (3.4-5.5) and 4.6 (3.2-6.6) and CRP levels, 13.8 (10.3-18.5) and 19.9 (13.4-29.6) for men and women respectively for all inflammatory markers.

Conclusions: Inflammatory markers are significantly higher in subjects with abnormal BMI compared to normal. Gender differences are noted in favor of men.

PV1035 / #1403

EMOTIONAL SUPPORT FROM THE SOCIAL ROBOT NAO AT A PEDIATRIC EMERGENCY DEPARTMENT

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Background and Aims: To evaluate social robots as a tool to manage anxiety in children coping with health emergencies.

The primary endpoint was to evaluate whether the NAO robot could support healthcare providers during their work in EDs by decreasing the anxiety and distress of paediatric patients, which was measured by assessing their heart rates and salivary cortisol production.

The secondary endpoint was to explore possible correlations between the demographic and psychological characteristics of the children and their heart rate and salivary cortisol levels.

Methods: This prospective randomised clinical trial was conducted among children attending a paediatric emergency department (ED) from July 1, 2019, to February 29, 2020. A total of 109 children aged 3 to 10 years were enrolled in the study.

Results: Of the 109 children enrolled, 71 were included in the final analysis (control group, 19; healthcare personnel group, 23; NAO robot group, 29). The significantly positive effect of the NAO robot on the children's anxiety was highlighted by decreased salivary cortisol levels, which were more evident among the girls than the boys. Notably, a more extroverted temperament was related to a lower heart rate in the NAO robot group.

Conclusions: The NAO robot is an excellent tool for helping children cope with stressful procedures in paediatric EDs.

PV1036 / #1412

MEIGS SYNDROME - A SHEEP IN WOLF'S CLOTHING A CASE REPORT

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Case Description: A 35 year-old female previously disease free came with complaints of lower abdominal pain, abdominal distension and fatigue.

Clinical Hypothesis: Confirmation was done through radiological, histological and biomarker to support the diagnosis.

Diagnostic Pathways: Meigs syndrome is a triad of symptoms benign ovarian tumour, ascites, and right sided pleural effusion and it is a diagnosis of exclusion. The presentation of symptoms in a younger women is uncommon. Patient underwent unilateral oophorectomy. Ascites and pleural effusion resolved after surgery.

Conclusion and Discussion: Awareness of benign lesions of ovary in younger women is important for limited patients anxiety and direct appropriate treatment.

PV1037 / #1431

CHARACTERISTICS OF DOCTORS-ON-CALL DUTYS IN A PERIPHERAL HOSPITAL

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Background and Aims: The aim of this study is to describe the characteristics of the work carried out of doctors-on-call duties in a hospital with 283 beds and there are two doctors-on-call every day specialists in Internal Medicine, Alergology, Neurology, Neumology, Digestive or Cardiology.

Methods: The most relevant data have been collected during the duty period in May and June of 2019 and a subsequent statistical analysis of the data has been done.

Results: Mean of hospital admissions per day: 11.7 - Days of less hospital admissions: 1 and 9 June (6 admissions each day) - Days of more hospital admissions: 23 May and 7 June (18 admissions each day) - Mean of phone-calls in each medical duty: 35.8. - Numbers of consultations of other medical specialties (General Surgery Gynecology and Otolaryngology): Form 1 to 4.

Conclusions: As medical duties are performed by doctors of different medical specialties, in which are attended the calls from all over the hospital, as well as all hospital admissions are carried out, we conclude that the quality of the health care may be impaired given the significant burden of work of health professionals.

PV1038 / #1444

THE CHANGING LANDSCAPE OF CARBAPENEM-RESISTANT ACINETOBACTER BAUMANNII IN A MEDICAL DEPARTMENT IN GREECE OVER A THREE-YEAR PERIOD (2017-2019)

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Background and Aims: Carbapenem-resistant *Acinetobacter baumannii* (CRAb) infections pose a challenge to the physician, as therapeutic options are limited and of uncertain efficacy. We present data on antimicrobial resistance and fatality rates associated with CRAb in an internal medicine department in Greece.

Methods: The charts of patients with *Acinetobacter baumannii* isolated from any biological specimen during the period 2017-2019 were reviewed. Antimicrobial resistance breakpoints were those defined by CLSI. For tigecycline, resistance was defined as MIC \geq 2 μ g/ml.

Results: *Acinetobacter baumannii* was isolated in 93 patients (2.97% of all admissions), at a median time of 8 days post-admission. 92.5% of isolates were carbapenem-resistant. Resistance to colistin, the most commonly used antibiotic for CRAb infections, rose significantly from 22% in 2017 to 43% in 2018-9 ($p=0.03$). There was a decrease in resistance to minocycline (44.5% in 2017 versus 26.5% in 2018-9, $p=0.07$), an antibiotic seldom used due to lack of a parenteral preparation. Resistance to tigecycline showed a less marked decline (76% in 2017 versus 63% in 2018-9, $p=0.09$). Use of this antibiotic was also limited, probably due to its reported association with increased mortality in severe sepsis. No significant fluctuations were observed in the resistance to other antimicrobials (sulbactam, trimethoprim-sulfamethoxazole, aminoglycosides) which constantly exceeded 80%. The crude fatality rate associated with severe (bloodstream or respiratory) CRAb infections was 54% in 2017 rising to 76.5% in 2019 ($p=0.13$).

Conclusions: Increasing colistin resistance and CRAb-associated fatality rates highlight the compelling need to enforce antibiotic stewardship and infection control strategies in parallel with the search for new antimicrobial agents.

PV1039 / #1463

POLYPHARMACY AND POTENTIAL DRUG-DRUG INTERACTIONS IN ELDERLY INPATIENTS OF A GENERAL INTERNAL MEDICINE DEPARTMENT IN GREECE

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Background and Aims: A drug-drug interaction is defined as a change in the activity or safety of a drug due to co-administration of one or more others. The purpose of this study was to estimate the number and severity of potential drug interactions in a population of patients with high prevalence of polypharmacy.

Methods: The medication of 305 consecutive admissions aged \geq 60 years (59% women, median age 82) to the Internal Medicine Department of an urban general hospital was recorded. Potential drug-drug interactions were sought using a freely available online software (<https://www.drugs.com/interaction/list/>). Interactions were classified as: mild (probably without clinical significance), intermediate (need to monitor the patient) and serious (avoid co-administration).

Results: The average number of active substances per patient was 5.98 (median 6, min 2, max 16). A total of 1727 potential interactions were detected. In 76.7% of patients there was at least one clinically significant (intermediate or serious) interaction. The number (y) of potential clinically significant interactions was a powerfunction of the number (x) of substances taken ($y=0.038x^{2.53}$, $r^2=0.99$). Serious interactions were possible in 22.9% of patients and were due to pharmacodynamic synergy (68%), competition (21%) or an unknown mechanism (11%). Drugs most commonly involved in potential interactions were (in order of frequency): antipsychotics, ACE inhibitors/sartans, antidepressants, proton pump inhibitors, anticoagulants, allopurinol, beta blockers, amiodarone and statins.

Conclusions: Polypharmacy is associated with a high probability of clinically significant interactions, which should be considered when evaluating treatment response or new symptoms. Incorporating automated interaction alert software into the e-prescribing platforms might ameliorate the risk.

PV1040 / #1488

NECK MASS AFTER MIGRATION OF INJECTED FREE LIQUID SILICONE

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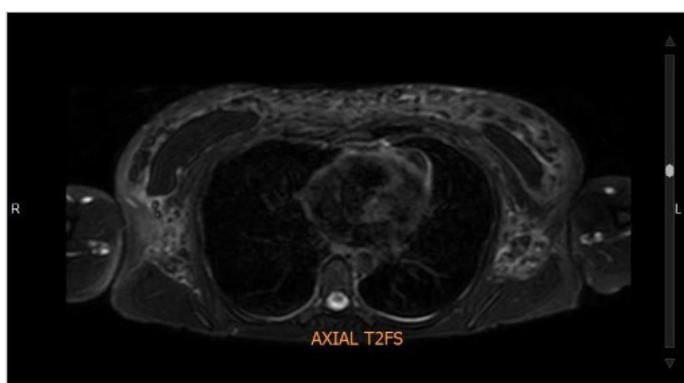
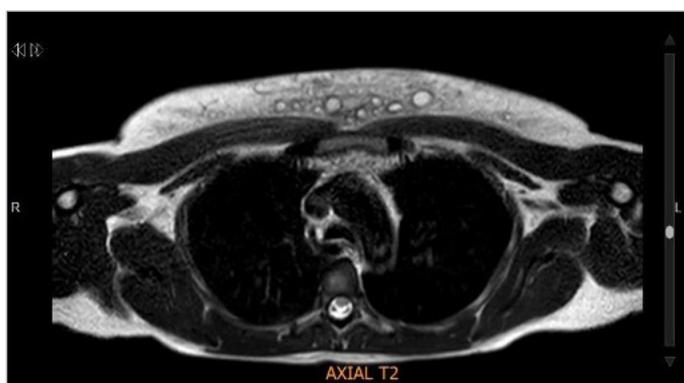
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Case Description: A 42-year-old woman from Colombia reported fever, tenderness, pain in the anterior and lateral neck, and sore throat over the last week. She had undergone breast augmentation with breast implants and liquid silicone injection into the breast 30 years ago.



#1488 Figure

Clinical Hypothesis: On admission, clinical examination revealed a painful tumor at the supraclavicular hollow level as well as in the anterior region of esternocleidomastoid, no other relevant alterations were showed. No adenopathies were found.

Diagnostic Pathways: Blood tests showed 15,400 leukocytes (normal between 3,000 and 10,000) with neutrophilia (10,600), 530,000 platelets, a normal renal function with a PCR of 19.5 mg/dL (normal less than 0.5), a prothrombin activity of 66% (normal between 70 and 120%). A chest x-ray and fibrolaringoscopy were performed; they were normal. An urgent chest CT showed a great mass effect that started at infrahyoid neck level, in soft tissues, with involvement of both esternocleidomastoid muscles affecting both esternocleidomastoid muscles at its most distal, encompassing the entire thyroid region, extending to the chest and both underarms; also displaying a mass effect of similar characteristics that was introduced into retrosternal, anterior mediastinic region, adjacent to the main trunk of the pulmonary artery. Marked signs of subcutaneous cell tissue edema are displayed in all regions described above as well as multiple/countless calcified nodules.

Conclusion and Discussion: Empirical antibiotic and anti-inflammatory drugs was initiated. A MRI was performed to check the integrity of breast prostheses. A PAF showed a granulomatous foreign body reaction by silicone. Clinical course was uneventful and she refused to perform other measures.

PV1041 / #1527

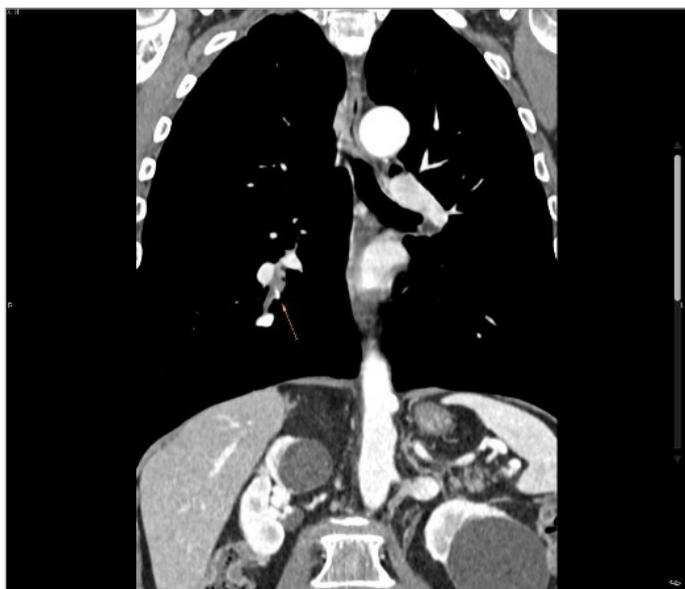
"FOREIGN" BRONCHIAL BODY AND ASTHMATIC CRISIS

Nuria Díez Herrán, Raquel Jaso Tejera, M Elena Casuso Saenz, Ana I. González-Torre, Tamara Gómez, Vanesa Álvarez De Eulate | Hospital de Laredo, Medicina Interna, Laredo, Spain

Background and Aims: Our patient is a 72 years-old man with clinical history of hypertension, moderate persistent asthma and chronic rhinitis. Three years before he had finally been diagnosed with Churg-Strauss syndrome p-ANCA+ and referred to a rheumatologist, who started azathioprine and, after, stopped it two months before the present patient's hospital admission, under presumption of disease recovery. He started suffering from asthma crisis almost immediately, with very poor response to usual treatment and only a subtle improvement with systemic corticosteroids. Infective (viral, bacterial, mycobacterial...), thromboembolic and other causes were ruled out. There was neither eosinophilia nor p-ANCA.

Methods: TC-scan was performed to complete study and it reported a ground-glass opacity pattern on right apex, bronchiectasis full of mucous material and a 4 mm calcium density imagen in lower right pyramid (arrows).

Results: This "stone" was removed by broncho-fiberscope and its anatomo-pathological study revealed Charcot-Leyden crystals (a product of eosinophils lysis) and Curchsmann spires (spiral-shaped mucus plugs), that are related with eosinophilic diseases as asthma, parasitic infections or some vasculitis.



#1527 Figure 1



#1527 Figure 2

Conclusions: Azathioprine reintroduction solved the process.

PV1042 / #1529

MISLEADING PULMONARY LESION

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Case Description: Our patient is a 54 years-old woman, smoker of 20 cigarettes per day, whose father suffered from tuberculosis 10 years ago, but her screening was negative. She had been admitted to the hospital on 2017 because of an episode consistent with a pulmonary abscess (the chest X-ray revealed a 44x49x54 mm right upper lobe cavitory lung lesion: arrow) without microbiological

isolations; tumor markers and basic autoimmune diseases analysis were also negative, and the response to ceftriaxone plus clindamycine was optimal.

Clinical Hypothesis: After that, she was admitted again on two occasions due to similar symptoms: a week of dry cough, fever, generalized myalgias and right chest pain with leukocytosis and CRP elevation.

Diagnostic Pathways: A CT-scan was performed; it reported a thin-walled tabicated cyst of 4.2 mm in right upper lobe apicoposterior segment, plus smaller subpleural cystic lesions corresponding to bullae.

Conclusion and Discussion: Secondary causes of cystic lung disease and other parenchymal lucencies that may mimic cysts were ruled out and she was finally diagnosed with recurrent episodes of super-infected congenital pulmonary cyst.



#1529 Figure 1



#1529 Figure 2

PV1043 / #1531

PLEURITIC PAIN RELATED TO ESOPHAGEAL PROBLEMS

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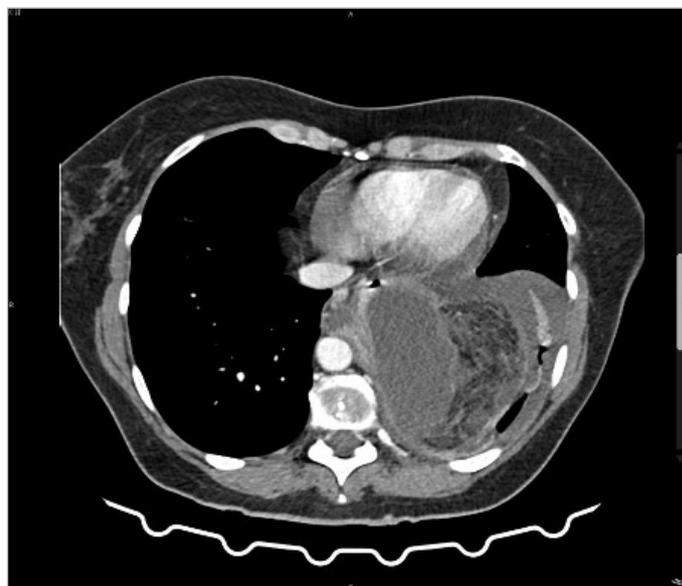
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Case Description: We present the clinical case of a 51 years-old woman without relevant medical history except for a big hiatal hernia diagnosed endoscopically 2 months earlier after dysphagia and retrosternal pain episodes, with the typical image on chest X-ray.

Clinical Hypothesis: Now, she is admitted to hospital because she refers since the day before a left-sided pleuritic pain without any other symptomatology. On this occasion a small pleural effusion on this side plus a pulmonary consolidation could be observed on chest x-ray, besides the already known hiatal hernia. There weren't relevant findings on routine blood analysis; atypical pneumonias serology and urinary antigens detection were negative. A thoracentesis was performed: it showed an acellular transudate with negative cultures.

Diagnostic Pathways: CT-scan reported a small pleural effusion and inferior left lobe compressive atelectasis due to the hernia, that was partially volvulated, englobing mesenteric fat, whereas the fundus lumen was occupied by alimentary content.

Conclusion and Discussion: A gastroscopy was performed to solve the obstruction and the patient was sent to the general surgery service.



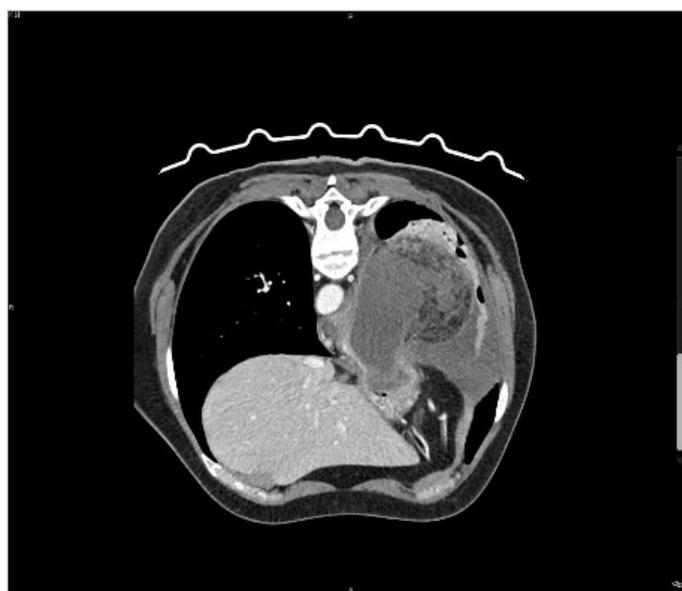
PV1044 / #1551

PERNICIOUS ANEMIA AS A CAUSE OF HEMOLYSIS

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Case Description: We review two cases of patients presenting to the emergency service with symptomatic severe macrocytic anemia with very high titers of lactate dehydrogenase (LDH). A 74-year-old male referenced after a positive cardiac stress test with hemoglobin 7.1 g/dL, mean corpuscular volume (MCV) 136 fL, decreased reticulocytes, increased indirect bilirubin, LDH 1657 U/L, peripheral blood smear (PBS) showing dacrocytes and Vitamin B12 79 pg/mL. The other, a 41-year-old female presenting with cutaneous pallor, fatigue and palpitations for 2 months, with hemoglobin 5.3 g/dL, MCV 112 fL, normal reticulocytes, increased indirect bilirubin, LDH 3406 U/L, PBS with schistocytes, dacrocytes and hypersegmented neutrophiles, Vitamin B12 71 pg/mL, decreased haptoglobin and absent hemosiderinuria. Both patients had no other identifiable causes of hemolysis and no known factors for vitamin B12 deficiency.



#1531 Figure

Clinical Hypothesis: Pernicious Anemia (PA) and dysmorphic red blood cells as a cause of hemolysis.

Diagnostic Pathways: A diagnosis of PA was made on both cases after detection of anti-parietal cell and anti-intrinsic factor antibodies. Intramuscular administration of cyanocobalamin resulting in normalization of hemoglobin, LDH and bilirubin further confirmed vitamin B12 deficiency as the cause of hemolysis.

Conclusion and Discussion: We present two cases of PA causing slowly developing hemolysis with macrocytosis, disproportionately high LDH levels and only slightly increased indirect bilirubin. When hemolysis is suspected, especially with this clinical and biochemical pattern, it is important to measure vitamin B12 and check antibody titers if a deficiency is found, as this has important implications on treatment and prognosis.

PV1045 / #1567

AN UNEXPECTED ABSCESS

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Case Description: 81-year-old man with history of total right hip replacement by a prosthetic in 2017. Was admitted in the emergency department due to pain in his right hip that worsened with mobilization and with progressive function limitation in the last 15 days. He also referred asthenia, without other related symptoms. Physical examination showed him to be afebrile, with pain on his hip in active and passive movements of the right lower limb.

Clinical Hypothesis: Surgical complication related to his right hip replacement (luxation, infection).

Diagnostic Pathways: Blood test revealed C-reactive protein of 11.67 mg/dl, with normal leukocyte count. The hip radiography didn't reveal any significant morphological changes and the prosthetic was rightly placed. The abdominal and pelvic computed tomography exhibit large liquid collection that extended to the root of the right thigh, resting on the posterior and lateral wall of the thoracoabdominal transition and on the flank wall, with polylubulated internal contour and multiple gas inclusion (13 cm of transverse diameter and 15 cm of anteroposterior diameter).

Conclusions: The abscess was approached with the support of intervention radiology, achieving a total drainage of 3900 mL of purulent liquid over 19 days, followed by a significant clinical improvement. No agent was identified on the multiple bacteriological studies. Reassessment with computed tomography revealed a significant decrease of the abscess volume with almost total drainage of its content. In discussion with a multidisciplinary team, was decided to keep imaging surveillance of this finding, given the complete recovery of limb functionality.

PV1046 / #1616

ON INTERDISCIPLINARITY OF INTERNAL MEDICINE

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Background and Aims: Internal medicine is essential discipline for all health sciences - medicine/psychology/sport,etc. The high complex morphology (incl. embryology), physiology, genetics, pathology (incl. immunology), diagnostic and therapy of human systems need in the future interdisciplinary models conc. multidimensional and holistic research, education and medical service, esp. in internal medicine.

Methods: Observation on patients (n=55): Example with single patients.

Results: 1. *Patient* (female, 60 years): Arrhythmia, hypertension, diabetes-2. Appearance of diarrhea, febrile state 38-40°C, cystitis, incontinence: antibiotic and phytopharmacological therapy (cactus, foliae uvae ursi, herba equiseti,etc.). Hospitalization, change of antibiotics-urosepsis and iliac-thrombosis. Return to original therapy, surgical-antithrombotic, antidiabetic treatment, leading to normal state. 2. *Patient* (female, 78 years): Rheumatoid-disturbances, non-efficient therapy, followed by toxicosis, atrial fibrillation, anxiety, also cystitis, incontinence,etc. Difficult combined therapy, leading to normalization. 3. *Patient* (female, 74 years): Arterial-hypertension, cardio-arrhythmia absoluta, mammary section/radiotherapy, thrombophlebitis-renal ptosis (ureteral stents counteracting acute-hydronephrosis). Hospital infection-cystitis: incontinence. General-therapy: Diet, sport, music, Yoga-therapy (respiratory-body training). Special therapy: Antibiotics & phytopharmacological (incl. allium sativum,etc.). Living up to 97 years.

Conclusions: Example with ^[1-3] and other patients demonstrate high complexity of pathology (interaction of different pathophysiological factors) & necessity of combined therapies incl. modern occidental & traditional oriental in context of psychosomatics (Thure von Uexküll) & somatopsychic therapies (Yujiro Ikemi). On this way could be supported UNO-Agenda21 for better health-education,etc. on global level.

Michailov, Neu et-al:

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[3]ICPM-2017-Beijing, AB:ID: 648493,648895, 647749, 648878; -2011-Seoul, AB 189; -2005-Kobe, J.Psychosom.Res. 58:85-86.

PV1048 / #1751

METHOTREXATE OVERDOSE – CLINICAL IMPACT AND CASE REPORT

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Case Description: A 69-year-old man with recent diagnosis of psoriasis, on 12.5 mg of methotrexate, was admitted with severe oral and perineal mucositis and painful cutaneous erosions on psoriatic plaques with progressive worsening for the last 2 weeks. He had been previously medicated with prednisolone assuming aphthous stomatitis with no improvement. His initial blood work showed bicytopenia: haemoglobin 11.7 g/dL (12.0-15.0), leukocytes 1,850/L (5,000-11,000) and neutrophils 720/L. After careful interview we found that patient had accidentally been taking methotrexate daily instead of weekly.

Clinical Hypothesis: Diagnosis of mucositis associated to methotrexate overdose was made. The drug was discontinued and patient was started on folic acid, topic sucralfate and nystatin, with rapid recovery of mucositis lesions and gradually improvement of the cutaneous erosions.

Diagnostic Pathways: Over subsequent days, despite clinical improvement, he developed progressive pancytopenia with haemoglobin 10.5 g/dL, neutrophils 380/L and platelets 70,000/L on day 8. He did not developed signs of infection, however, due to a persistent severe neutropenia, he was isolated and started on concentrated growth factor (filgrastim). He made full recovery and was discharged home on day 15.

Conclusions: Methotrexate is one of the most prescribed drugs with expanding use. Methotrexate toxicity correlates better with the duration of the exposure rather than peak concentration and includes a wide range of adverse effects, such as mucocutaneous damage, bone marrow suppression, and hepatic, renal, gastrointestinal or neurologic damage. The authors emphasize the role of patient education, regular follow-up and prompt recognition of methotrexate overdosing.

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