GASTROINTESTINAL AND LIVER DISEASES

[Abstract:0013]

NEUROLOGICAL INVOLVEMENT IN CELIAC DISEASE: WHEN THE NERVOUS SYSTEM REPORTS THE DUODENUM!

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Introduction: Celiac disease (CD) is an autoimmune enteropathy triggered by the ingestion of gluten in predisposed individuals. Its clinical presentation in adults is highly atypical. Neurological manifestations (NMs) are rare and should be systematically investigated. they can present in isolation, revealing the disease, or as part of complications.

Aim: To study the clinical and paraclinical profile, treatment and follow up of NMs in CD.

Materials and Methods: from 2017 to 2023, 27 patients with CD were enrolled in this retrospective study. Diagnosis was based on clinical, biological, and histological evidence.

Results: 8 patients with CD and NMs were identified. Mean age: 37.1 years (range: 27-48 years), sex ratio: 1.7. The main symptoms found: headaches, isolated or associated with seizures; paresthesias; tremors; hemiparesis; posterior cord + pyramidal syndrome; cerebellar syndrome; and insomnia. NMs revealed CD whether isolated or associated with digestive manifestations. It was part of the clinical picture, synchronous with other manifestations, or metachronous. Etiological investigation uncovered cerebral venous thrombosis, ischemic stroke, Gayet-Wernicke encephalopathy, axonal sensory polyneuropathy and resting tremor. All patients were placed on a gluten-free diet + symptomatic treatment. short and medium-term outcomes were favourable. In the long term, one patient died with severe malnutrition resulting from dietary lapses.

Conclusions: Neurological involvement in celiac disease (CD) is rare. It can be isolated and revealed the disease, representing a real diagnostic challenge. The most common symptoms are headaches and paraesthesia. The most common underlying cause, regardless of the clinical presentation, is deficiency. Therefore, early diagnosis of CD and dietary management are essential to prevent complications.

Keywords: *celiac disease, neurological involvement, headaches, paraesthesia, vitamin deficiency*

[Abstract:0018]

A CASE OF HEADACHE IN A LIVER TRANSPLANT RECIPIENT

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We present a case of 68-year-old man with anamnesis of liver transplantation due to liver cirrhosis caused by alcohol on 7/2022. On December 2022, he was admitted to Department of Neurology in secondary care centre. He was complaining of severe headache with no pain relief even after painkillers. Patient underwent several examinations, CT scan of the brain and carotid ultrasound did not confirm any abnormality, electroencephalography was normal, lumbar puncture did not reveal any pathology in cerebrospinal fluid. Patient was treated with analgesics and corticosteroids with partial response and then discharged home. On 2/2023, patient presented with amaurosis of the right eye, he was admitted to the Department of Ophthalmology. Magnetic resonance of the brain was performed, that revealed cerebral white matter lesions in subcortical and periventricular region. Patient was diagnosed with posterior ischemic optic neuropathy. He started with pulse corticosteroids and haemorrhagic agents. On 3/2023 patient was referred to our liver transplant unit due to constant headache and vision loss. We carried out MR scan of the brain again that uncovered tumour located on the right greater wing of sphenoid bone with invasion to the optic canal. Neurosurgeons performed biopsy and histopathology confirmed fungal infection caused by Aspergillus spp. Antifungal therapy with voriconazole was administrated. In this case, we would like to underline the fact, that aspergillosis is one of the most common fungal infections that can occur after liver transplantation and can be effectively treated.

Keywords: *liver transplantation, headache, aspergillosis*

 DOI: 10.12890/2024_V11Sup1

[Abstract:0019]

THIRD TIME LUCKY, OR NOT?

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We present a case of the young 36-year-old patient with the diagnosis of primary sclerosing cholangitis who was admitted to our liver unit in august 2022 due to acute onset of jaundice. Abdominal ultrasonography revealed dilatation of intrahepatic and extrahepatic bile ducts. We performed endoscopic retrograde pancreatocholangiography and SpyGlass cholangioscopy that showed image of severe multiple strictures of biliary tree with no possible endoscopic treatment. Multidisciplinary team decided for liver transplantation as a definite therapeutic option. On 5th September 2022 we performed liver transplantation with Roux-en-Y anastomosis. On 6th September patient´s condition and lab tests deteriorated, we diagnosed primary graft non-function, patient was urgently put on waiting list and we started with plasmapheresis. On 10th September 2022 we performed liver re-transplantation. Two days after patient undergone surgical revision because of haemorrhagic shock. Following days patient´s condition started to improve. On 28th September we observed elevation of cholestatic enzymes, we did liver biopsy, with no confirmation of rejection, on CT scan we found bile duct dilatation, thickening of Roux-en-Y anastomosis wall. Due to the progression of cholestatic enzymes we performed percutaneous transhepatic cholangiography (PTD). In following months patient was frequently admitted to our unit due to attacks of acute cholangitis. Finally, on the ground of development of ischemic cholangiopathy and biliary cast syndrome associated with graft dysfunction patient was indicated to liver re-transplantation again. The third liver graft was transplanted to our patient on 10th July 2023, with no complications and on 21th July was discharged home.

Keywords: *primary sclerosing cholangitis, liver transplantation, biliary cast syndrome*

[Abstract:0045]

CALLY INDEX AS A PROGNOSTIC SCORE FOR TRANSPLANTATION IN PATIENTS WITH HCC: A RETROSPECTIVE STUDY

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Background and Aims: Hepatocellular carcinoma (HCC) is one of the leading cancer-related causes of death worldwide. Transplantation is a unique curative treatment option based on tumour size and BCLC stage. The pathophysiology of HCC is complex and multifactorial. However, systemic inflammation has a pivotal role in HCC development and progression. We aimed to determine the impacts of CALLY (CRP-albumin-lymphocyte index) to predict the transplantation decision.

Methods: 199 patients with biopsy or MRI (magnetic resonance imaging) proven HCC were enrolled in 2010 and 2020. We evaluated the relationship of baseline CALLY index with baseline tumour size, BCLC stage, and suitability for UCSF and Milan criteria.

Results: The lower CALLY index was correlated with increased baseline tumour size, additionally statistically significant in patients with tumour size larger than >100 mm (p=0.005). According to the BCLC stage, Patients with BCLC-C and BCLC-D had lower CALLY index than other stages (p=0.013, p=0.007). Additionally, a high CALLY index was related to the patients who were eligible for transplantation in both UCSF and Milan criteria (p=0.001, p=0.001).

Conclusions: The results of our single-centre study verified that the baseline low CALLY index was predictive of patients unsuitable for transplantation. Because this index is practical and easy to obtain, CALLY index should be included in the clinical management of HCC.

Keywords: *HCC, transplantation, CALLY index*

[Abstract:0057]

CMV COLITIS-INDUCED SUPERIOR MESENTERIC VENOUS THROMBOSIS: CASE REPORT

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Introduction: Cytomegalovirus is known to cause venous thromboembolism. Mesenteric venous thrombosis is a rare cause

 DOI: 10.12890/2024_V11Sup1

of mesenteric ischemia that is associated with increased morbidity and mortality. Cytomegalovirus-associated thrombosis is a secondary thrombosis affecting the portal vein, mesenteric veins, splanchnic vein, and Budd-Chiari syndrome in immunocompetent adults, which is rarely reported in the literature. The most common etiological reason is the induction of antiphospholipid antibodies due to CMV viremia, leading to endothelial cell damage. Here, we present a case of Cytomegalovirus-associated superior mesenteric venous thrombosis in a patient admitted with severe haemorrhagic diarrhoea.

Case Presentation: An 82-year-old female patient was admitted to the hospital with severe haemorrhagic diarrhoea and abdominal pain. Abdominal examination revealed defence and rebound. Liver enzymes were elevated, and CMV infection was confirmed. Colonoscopy revealed granular, ulcerous, fragile mucosa at 15 and 30 cm in the distal sigmoid colon, consistent with ischemic colitis. Pathology results from colonic biopsy revealed CMV and nuclear positivity (Figure 1 and 2). In CT angiography of the abdominal aorta, the appearance of partial thrombus was observed in the middle and distal parts of the superior mesenteric vein (SMV) (Figure 3). Ganciclovir and heparin infusion were initiated, and after clinical worsening, she was referred to the ICU. Symptoms regressed, and warfarin was started instead of heparin at the 6th week. She is still being followed at our clinic.

Conclusions: Our case illustrates that CMV infection may cause venous thromboembolism even in non-immunosuppressed patients.

Keywords: *Cytomegalovirus, superior mesenteric vein thrombosis, CT, small bowel infarction*

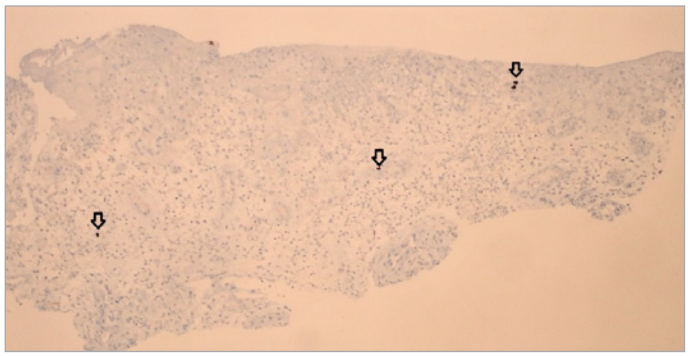

Figure 1. *Ulcer surface and base, inflamed granulation tissue growth, loss of surface epithelium and crypts (Hematoxylin &Eosin).*

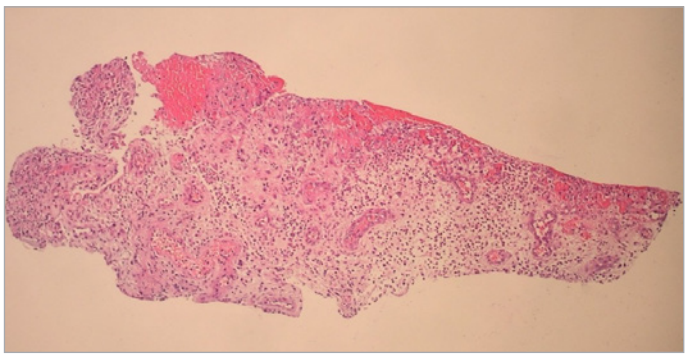

Figure 2. *Nuclear staining with CMV (immunohistochemistry).*

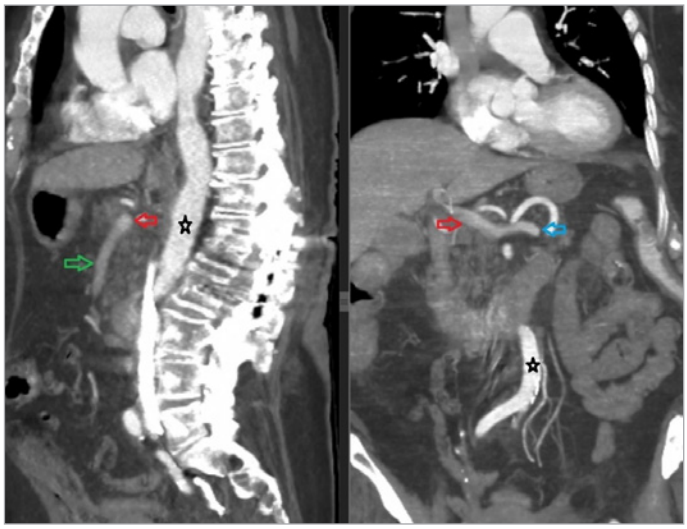

Figure 3. *Partial portal thrombosis in posterior venous wall (red arrow), complete thrombosis in superior mesenteric vein. Intraluminal dense content in splenic vein (blue arrow) and abdominal aorta (black star) which are intact.*

[Abstract:0102]

LEVOTHYROXINE-INDUCED LIVER INJURY FOLLOWED BY COMPLETE RECOVERY UPON CESSATION OF THE DRUG: A CASE REPORT

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Background: Levothyroxine is a synthetic thyroxine and is the treatment of choice for hypothyroidism. It is a prohormone with minimal intrinsic activity. The drug is de-iodinated in peripheral tissue to form triiodothyronine, which is the active thyroid hormone. On initiation of treatment, levothyroxine is titrated, and usually it is extremely well tolerated in the vast majority of patients. We report a case of a patient with self-limiting levothyroxine-induced liver injury, a rare adverse effect of this drug.

Case Presentation: We report a case of a 34-year-old Mediterranean woman diagnosed with post-thyroidectomy

DOI: 10.12890/2024_V11Sup1

hypothyroidism. She was commenced on levothyroxine and developed liver injury confirmed by non-invasive liver investigations. Complete recovery of the patient's liver tests occurred upon cessation of the drug. Triiodothyronine was an appropriate treatment alternative.

Keywords: *levothyroxine, liver, recovery*

[Abstract:0113]

GASTRIC NEUROENDOCRINE CARCINOMA (NEC) AS A CAUSE OF IRON DEFICIENCY ANEMIA

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Case Description: A 80-year-old female patient, with medical history of diabetes mellitus, hypertension, chronic obstructive pulmonary disease and good performance status presented to the outpatient department due to iron deficiency anaemia.

Clinical Hypothesis: Differential diagnosis of iron deficiency anaemia.

Diagnostic Pathways: An upper gastrointestinal endoscopy was performed, which revealed a polypoid lesion, stage Ips according to the Paris classification, with a maximum diameter of 1.5 cm in the anatomic area of stomach body-fundus boundaries. The lesion was removed by endoscopic mucosal resection (EMR). Histology confirmed NEC grade I large cell neuroendocrine carcinoma (mitotic count <2/2mm², cell proliferation index was expressed in 10% of the neoplasm cells and immunohistochemical test showed positivity in chromogranin and synaptophysin). The surgical margin of the polyp was free of neoplasia. The patient underwent staging image screening with computed tomography, which did not reveal any metastasis. Since then, she remains under observation at a neuroendocrine neoplasms clinic. After intravenous iron infusion, anaemia and ferritin values returned into normal levels in a few months.

Discussion and Learning Points: Gastric neuroendocrine carcinomas are accounting for <1% of all gastric cancers. Chromogranin and synaptophysin can be positive in 96% of them. They appear to be quite aggressive, as lymph node and vascular involvement is found in more cases than in adenocarcinoma, with a median survival of 46 months. They should be involved in differential diagnosis for iron deficiency anaemia caused by upper gastrointestinal lesions. Clinicians should be concerned and refer these patients for a gastrointestinal endoscopy.

Keywords: *anemia, iron, NEC, EMR*

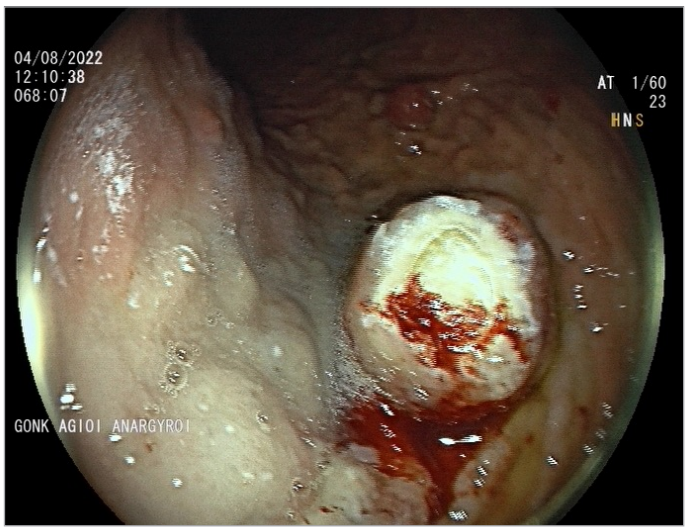

Figure 1. *Polypoid stomach lesion after EMR.*

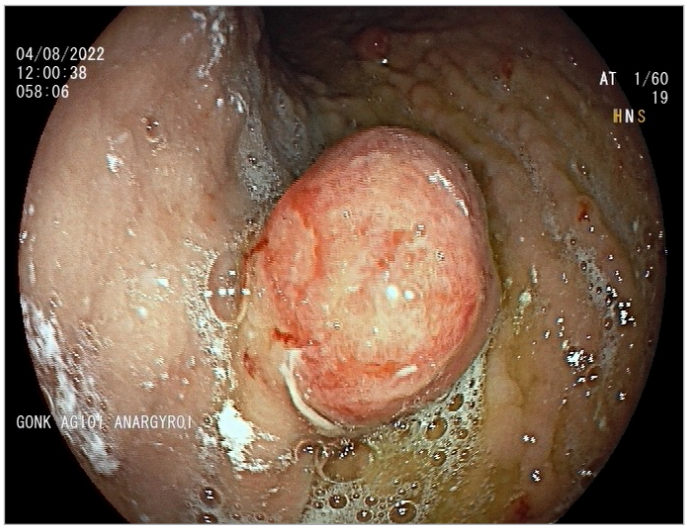

Figure 2. *Polypoid stomach lesion before EMR.*

[Abstract:0119]

A CASE OF HEPATOCELLULAR CARCINOMA ASSOCIATED WITH CAVERNOUS HEMANGIOMA

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Objectives: To study clinical features of non-alcoholic fatty liver disease (NAFLD)-associated hepatocellular carcinoma (HCC) associated with cavernous haemangioma (CH).

Clinical Hypothesis: To our hospital in May 2023, a 74-year-

 DOI: 10.12890/2024_V11Sup1

old Japanese man presented with incidental ultrasound and computed tomography (CT) findings of segmental VI liver 7.5 × 6.5 cm occupying lesion with centripetal filling-up in the portal venous phase compatible with CH and with diabetes mellitus of 30 years.
Diagnostic Pathways: Radiographic and clinical examination revealed the 7.5 × 6.5 cm lesion, but serum AFP and PIVKA II were high. Gd-EOB -DTPA-enhanced magnetic resonance imaging (MRI) showed a low-intensity area on T1WI. The lesion is a high-intensity area at T2WI with early peripheral nodular enhancement, and delayed persistent enhancement with subsequent fill, compatible with CH. Moreover, the CH contact lesion showed hyperenhancement in the arterial phase and hypointensity in the delayed phase. Laparoscopic segmental VI hepatectomy was performed in August 2023. The 2.0 cm tumour was diagnosed histopathologically as HCC, with moderate differentiation, but no vascular tumour embolus. Adjacent to the HCC tumour edge, a typical CH lesion included blood vessels. Nuclear pleomorphism was absent. A typical CH and HCC adjacent to simple steatosis was characterized by a large lipid droplet in the hepatocyte cytoplasm.
Discussion: This male patient, with contrast EOB-MRI of HCC and CH features, showed NAFLD-associated HCC with radiological presentations differing to those of typical HCC. Incidental findings of any liver-occupying lesion in NAFLD with DM patients deserve immediate clinical attention.

Keywords: *hepatocellular carcinoma, cavernous haemangioma, Gd-EOB -DTPA, simple steatosis, diabetes mellitus*

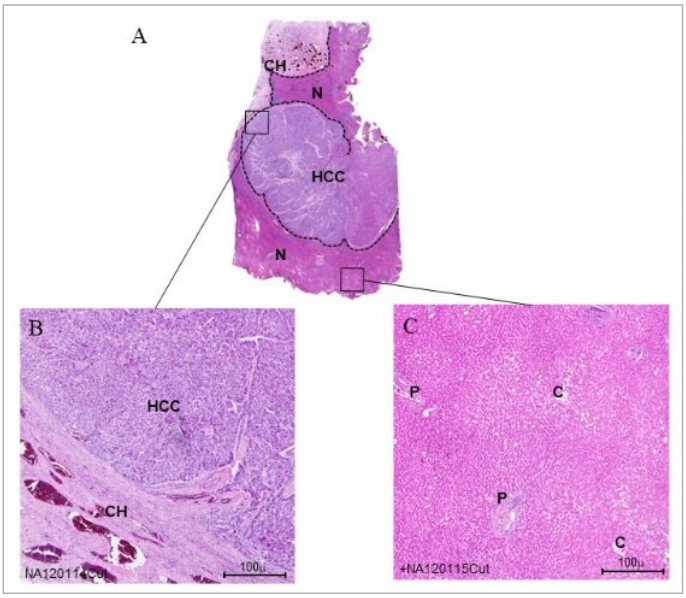

Figure 1. *Histological features of the tumours in this case.*
A: The hepatocellular carcinoma(HCC), showing a well- to moderately-differentiation level, was demarcated from the surrounding the cavernous haemangioma (CH) areas and control liver areas with a relatively clear boundary (lupe level, HE staining, magnification ×10); B: The CH areas were composed of large thin-walled vascular spaces, lined by a monolayer flat endothelial cells (HE staining, magnification × 50). C: Steatosis is typically macrovescicular, and is normally located in perivenular areas (acinar zone 3)-2.

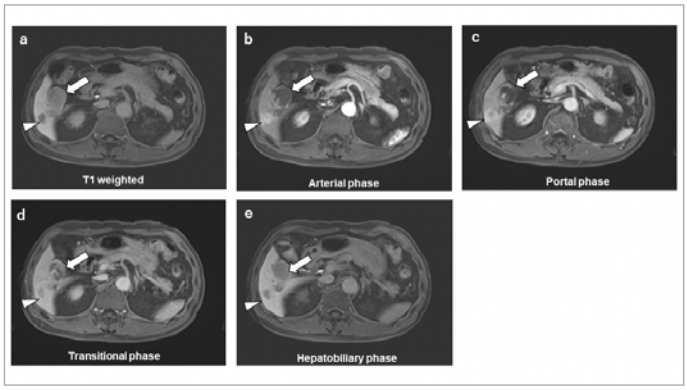

Figure 2. *MR images of hepatic tumour.*
The cavenous haemangioma contact lesion showed hypointensity lesion(arrowhead) is observed on T1-weighted image. (b)–(e) Gadolinium ethoxybenzyl diethylenetriamine penta acetic acid-enhanced images. In the arterial phase following contrast injection (b), the centre of the tumour is enhanced intensely and homogeneously(c) in portal phase. In the traditional phase (d) and hepatobiliary phase (e), the tumour is completely washed out.

[Abstract:0121]

IMPORTANCE OF PROGNOSTIC SCORES FOR ASSESSMENT OF BRIDGING TREATMENTS IN HCC PATIENTS

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Background and Aims: Hepatocellular carcinoma (HCC) is one of the leading causes of cancer-related mortality. Locoregional treatments are important as bridging therapies, especially for transplantation. This study aimed to determine the impact of prognostic scores in predicting the last treatment method after transarterial chemoembolization (TACE).
Methods: In this retrospective study, patients with HCC confirmed with MRI were enrolled from to 2010-2022. We evaluated the impact of baseline alpha-fetoprotein (AFP), CALLY index (CRP-albumin-lymphocyte index), systemic immune-inflammation index (SII), and ALBI score on the prediction of the last treatment option after TACE. Univariate and multivariate logistic analyses were used to determine independent factors.
Results: Of 199 patients with HCC, 172 were suitable for treatment according to the BCLC stage, and the TACE group was the largest treatment group (74 patients). The final treatments included TACE (31, 42%), sorafenib (28, 38%), transplantation (9, 12%), regorafenib (3, 4%), and radioembolization (3, 4%). The impact of the prognostic scores for transplantation, TACE, and sorafenib treatments was evaluated. None of these scores was related to transplantation. Patients with high ALBI scores (p=0.029; p<0.05) and a low CALLY index (p=0.023; p<0.05)

 DOI: 10.12890/2024_V11Sup1

were associated with TACE as the last treatment option. Similarly, low ALBI score (p=0.038; p<0.05) was predictive of sorafenib treatment.

Conclusions: The results of our single-centre study verified that a low baseline ALBI score was predictive of disease progression and the direction of oncological treatment. CALLY index may have a prognostic impact on bridging treatment methods; however, research with larger patient groups is necessary.

Keywords: *hepatocellular carcinoma, ALBI score, CALLY index*

		Transplantation	Sorafenib	TACE
AFP	Ort±Ss	1220,44±2369,68	98,58±206,17	2740,2±9317,7
	Median	48 (2-6095) *0,177*	7 (1-718)	29 (1-40026)
	p	0,177	*0,228*	*0,335*
CALLY	Ort±Ss	2,84±1,94	2,76±2,51	1,45±1,44
	Median	2,7 (0,6-6,2)	1,9 (0,2-9,2)	1,2 (0-6)
	p	*0,160*	*0,088*	***0,023****
SII	Ort±Ss		327,05±220,9	445,07±476,12
	Median	192,93±114,45 193,8 (21,5-337,9)	303,4 (0,1-1047,4)	277,8 (69,3-2387,7)
	p	*0,064*	*0,801*	*0,919*
ALBI Score	Ort±Ss	-2,35±0,78	-2,81±0,43	-2,46±0,54
	Median	-2,5 (-3,3--1,3)	-2,8(-3,6--1,8)	-2,4 (-3,2--1)
	p	*0,385*	***0,038****	***0,029****

Mann Whitney U Test **p<0,05*

Table 1.

[Abstract:0218]

COGNITIVE IMPAIRMENT IN PATIENTS WITH LIVER CIRRHOSIS ANS RENAL DYSFUNCTION

Marilena Stoian

Carol Davila University Of Medicine, Bucharest, Romania; Department Internal Medicine Dr Ion Cantacuzno Hospital, Cantacuzno, Romania

Background: 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 cirrhosis, 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 >3 SD 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 >3 SD, but did not differ in Child-Pugh score or aetiology 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 aetiology. 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.

Keywords: *cognitive impairment, chronic renal dysfunction, hepatic encephalopathy, liver cirrhosis*

[Abstract:0221]

UNEXPECTED DIAGNOSIS IN A YOUNG PATIENT WITH CIRRHOSIS

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We present the case of a 22-year-old woman with no relevant medical history and no toxic habits, who presents dyspnoea, ascites and lower limbs oedema of one year of evolution. In addition, she reported amenorrhea of 7 months of evolution and loss of 10 kg of weight. There were no neurological symptoms. Analytically, low serum ceruloplasmin (<6 mg/dL), anaemia, thrombopenia, and coagulopathy stood out, with normal liver enzyme levels. An autoimmunity study was also requested but the result was negative. An ultrasound of the abdomen was performed with right pleural effusion, ascites, cirrhotic hepatomegaly, and splenomegaly. We also performed a high digestive endoscopy in which small oesophageal varices were seen. When we examined the patient with a slit lamp, we could see Kayser-Fleischer rings in both eyes. With these findings it was possible to establish the diagnosis of liver cirrhosis secondary to Wilson's disease. We initiated treatment with D-penicillamine and the patient was placed on a waiting list for liver transplantation.

Wilson's disease is a rare congenital disease due to a deficiency in the intracellular copper transporter protein. Due to this deficiency, copper accumulates in tissues such as the liver or brain. Low ceruloplasmin, Kayser-Fleischer rings and increased urine copper will help us establish the diagnosis. Treatment involves copper chelators and zinc to remove the retained copper and also prevent its absorption. Without treatment the disease has a fatal course, but the treated patients have a life expectation equal to that of the healthy people of their age.

Keywords: *Kayser-Fleischer rings, Wilson's disease, cirrhosis*

 DOI: 10.12890/2024_V11Sup1

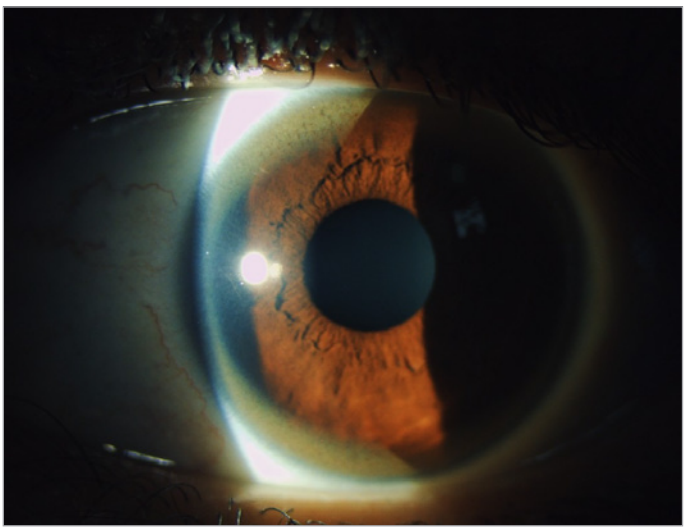

Figure 1. Copper deposition in Descemet membrane (Kayser–Fleischer ring).

[Abstract:0233]

EVALUATION OF ETIOLOGY AND HELICOBACTER PYLORI POSITIVITY IN GERIATRIC PATIENTS WITH UPPER GASTROINTESTINAL BLEEDING

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Aim: Advanced age, peptic ulcer history, HP, NSAIDs and combinations of anticoagulants/ antiplatelets increase the risk of GI bleeding in geriatric patients. This study aims to evaluate the aetiology and HP prevalence diagnosed by upper GI endoscopy in geriatric patients admitted to the hospital and compare the results with non-geriatric patients.

Methods: Patients admitted to our clinic with upper GI bleeding who underwent upper GI endoscopy and HP research with biopsy between 2021 and 2023 were included in the study. They were divided into geriatric (≥65 years) and non-geriatric (<65 years) groups. Endoscopy and HP results along with medication history were recorded for both groups. Results were evaluated using SPSS.

Results: 70 (40M, 30F, mean age 72±12 years,) geriatric and 40 (31M, 9F, mean age 46±18 years) non-geriatric, totally 110 patients were included in the study. In geriatric group, 13% of the patients were using NOAC and 39% ASA. 45% of patients had peptic ulcers, and 55% gastritis and erosion. 38% of the patients had HP positivity. In non-geriatric group, 1% of the patients were using NOAC and 3% ASA. 42% of patients had peptic ulcers and 58% gastritis and erosion. 55% of the patients had HP positivity. NOAC and ASA usage were higher and HP presence was lower in geriatric group compared to non-geriatric group. There was no significant difference in ulcer prevalence between the groups.

Conclusions: The increasing usage of NOAC and antiplatelet treatments, along with the presence of HP, remains the main risk factors for upper GI bleeding in the elderly.

Keywords: *upper GI bleeding, peptic ulcer, gastritis, helicobacter pylori*

[Abstract:0294]

EVALUATION OF CLINICAL, SEROLOGICAL AND PATHOLOGICAL FINDINGS IN ADULT PATIENTS DIAGNOSED WITH CELIAC DISEASE; TERTIARY SINGLE CENTER EXPERIENCE

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Aim: To investigate presence and association of clinical, biochemical, serological, and histopathological findings of celiac disease (CD) in our centre and to create awareness about parameters in diagnosis and follow-up of celiac patients.

Materials and Methods: 228 patients with CD, aged 18 and older, who were admitted to the Internal Medicine and Gastroenterology outpatient clinic of Lutfi Kirdar City Hospital between 2017-2022 were recruited to the study. Those without histopathological sampling were excluded. The presentation symptoms, concomitant diseases, laboratory parameters, serological and histopathological parameters of the patients were evaluated.

Results: Among 228 celiac patients, 69.7% were women and 30.3% were men. The mean age of the participants was 39.34±12.45. Body mass index was detected as 23.37±3.11kg/m^2. The average time to diagnosis was about 7.02 years. The most frequent comorbidities were thyroid diseases (14.9%), osteoporosis (7.9%), rheumatological diseases (6.6%). Atypical CD was found in 70.6% of 228 patients. Patients with typical CD were found to be shorter in height (p=0.025), and their anti t-TG IgA values were significantly higher (p=0.044) than those with atypical CD. The Marsh histopathological classification and anti t-TG IgA high positivity were positively correlated (p<0.001). t-TG IgA positive group has lower haemoglobin levels (p=0.024). Marsh 3B was shown in 77.8% of the patients with high anti t-TG IgA positivity (p=0.029).

Conclusions: Clinical, laboratory parameters, serology, and histopathological findings of the patients with CD are connected like chain links, and evaluation of serologic parameters have clinical importance as they related to the histopathological severity in CD.

Keywords: *celiac disease, Marsh Oberhuber, anti-t-TG IgA, anti-endomysium antibody*

 DOI: 10.12890/2024_V11Sup1

[Abstract:0329]

CASE REPORT: ESOPHAGEAL INVOLVEMENT AND BLEEDING IN BULLOUS PEMPHIGOID DISEASE

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Purpose: Oesophageal involvement and bleeding in bullous pemphigoid is a rare case of a person with a unique gastrointestinal symptom related to a skin disease.

Methods: 48-year-old woman with a past medical history bullies pemphigoid was admitted to our hospital with the sudden onset of hematemesis. An urgent upper endoscopy was performed that showed numerous blistering lesions on the hypopharynx and a large bleeding oesophageal hematoma as well as active bleeding of the oesophagus (Figure 1). The procedure is terminated by applying an Ankaferd blood stopper to the mucosal lesions where bleeding is observed in the form of leakage. In the control endoscopy performed under sedation of the patient, whose oral intake was closed under PPI infusion for two days, it was observed that the bleeding in the existing mucosal lesions had stopped and the oedema had regressed (Figure 2).

Findings: Performing esophagogastroduodenoscopy can provide challenges in situations such as these, as the oesophagus has the potential to develop blisters and undergo sloughing even with minimal contact from the endoscope. The primary objective of treatment is to effectively manage the underlying immunological disorder. However, in instances where extensive gastrointestinal bleeding is present and resulting in hemodynamic instability, therapeutic endoscopy may be utilized as an intervention to halt the bleeding.

Conclusions: This instance highlights the importance of gastroenterologists being cognizant of the potential association between skin illnesses and digestive disorders. It is imperative to use caution during endoscopic procedures on patients with pemphigoid disorders, especially in the absence of apparent symptoms.

Keywords: *bullous pemphigoid, esophageal involvement, endoscopy*

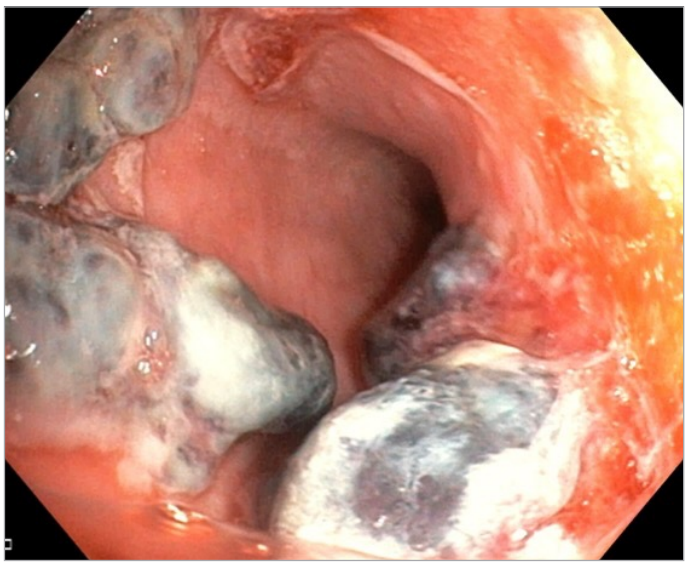

Figure 1. *Large bleeding oesophageal hematoma.*

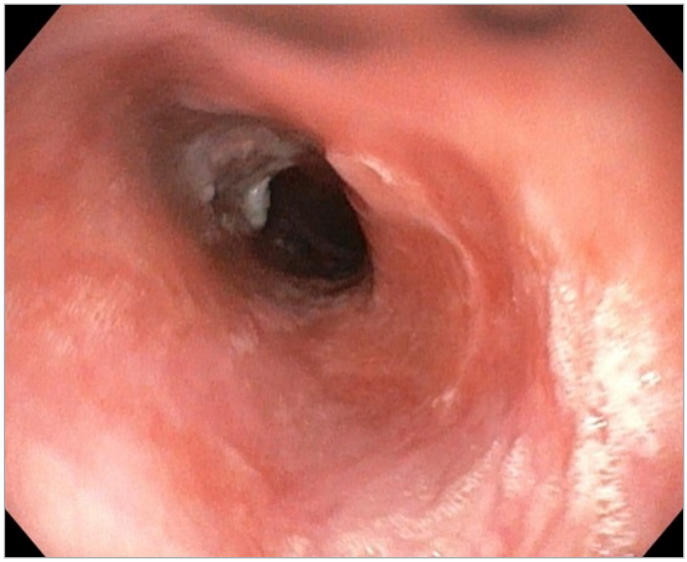

Figure 2. *mucosal lesion of BP in oesophagus.*

[Abstract:0347]

LIPEMIC PANCREATITIS, DESCRIPTIVE ANALYSIS

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Objectives: Analyse and describe the clinical characteristics and treatment results in three patients with lipemic pancreatitis.

Methods: Retrospective analysis of patients with lipemic pancreatitis during one year in the Internal Medicine service.

Results: Attached in the Figure 1. The patients were of various ages (22, 47, 51 years) and two of them were women. All patients had hypertriglyceridemia and obesity as personal

DOI: 10.12890/2024_V11Sup1

history of interest. Two patients had secondary causes of hypertriglyceridemia, including alcohol consumption and prolonged use of glucocorticoids in childhood. None of the patients had had previous episodes of pancreatitis.

Specific treatment included plasmapheresis, which was performed in the 3 patients in our registry, in the Critical Care unit. One of them subsequently received intravenous insulin infusion as soon as the hypertriglyceridemia subsided. Triglyceride levels upon admission varied between 2717 mg/dl and 7151 mg/dl, highlighting that on the second day of admission they decreased to levels <1000 mg/dl after implementing the specific measures mentioned. The average hospital stay was 31 days, with a minimum stay of 4 days and a maximum of 50 days. Complications included central line infection and venous thrombosis in one patient.

Conclusions: Lipemic pancreatitis is a complex condition that requires careful management, evaluating plasmapheresis and intravenous insulin infusion as specific treatments in patients with worrisome clinical characteristics. The results of this study underscore the importance of an individualized approach in the management of these patients.

Keywords: lipemic pancreatitis, hypertriglyceridemia, plasmapheresis, insulin infusion

Age	51	22	47
Sex	Man	Woman	Woman
Previous illnesses	Smoker, drinker, known hypertriglyceridemia	Family history of hyperTG. Obesity	Obesity
Secondary Causes: HyperTG	Alcohol	Obesity, ACHOS	Obesity, Glucorticoids in prolonged treatment in childhood
Pretreatment	No	ACHOS	Eslicarbazepine, Amitriptyline
Previous episodes of pancreatitis	No	No	No
RANSON at the entrance	1	2	2
BISAP	0	3	0
TG level at admission (mg/dl)	2717	7151	6735
Hypocalcemia (mg/dl)	Yes	Yes	Yes
Lactic acidosis (mg/dL)	Yes	Yes	Yes
Signs of systemic inflammation >2 (T°> 38.5/ HR >90/ RR >20/ Leucos >12.000)	No	Yes	Yes
Signs of Multi-Organ Dysfunction / Modified Marshall Score	No	No	No
Level of TGs after 1 day of admission	-	1843	6735
Level of TGs after 2 days of admission	217	621	922
Level of TGs after 3 days of admission	-	536	639
Level of TGs after 4 days of admission	-	404	512
Level of TGs after 5 days of entry	395	474	376
Conservative treatment	Yes	No	No
Plasmapheresis (number of sessions)	Yes	Yes (2 sessions)	Yes (1 session)
Insulin infusion	No	Yes	No
Acute phase reactants on 1st day of admission	Descent	Promotion	Descent
Necrosis or not	No	Yes	No
ATB received	No	Piperacillin/Tazobactam (Necrosis). Linezolid (Catheter bacteremia)	Meropenem
Necrosectomy or not	No	No	No
Lipid-lowering treatment	Fenofibrate	Gemfibrozile / Fenofibrate	Gemfibrozile / Fenofibrate
Days of admission	4	39	50
Need for vasoactive drugs	No	Yes	No
Need for respiratory support	No	Yes	No
Central Line/Femoral Catheter Infection	No	Yes (Bacteremia Left Jugular Central Catheter)	No
Venous thrombosis	No	Yes (Right Iliac Vein Partial Thrombosis)	No
Death	No	No	No

Figure 1. *Descriptive study of clinical characteristics of the patients.*

[Abstract:0369]

TAMOXIFEN-INDUCED ACUTE PANCREATITIS

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Hypertriglyceridemia is one of the causes of acute pancreatitis. It is present in 1-30% of cases of acute pancreatitis. The higher the triglyceride levels, the greater the likelihood of developing acute pancreatitis, and can be associated with more severe acute pancreatitis. Woman, 43 years, with personal history of left breast neoplasia, submitted to left tumourectomy, under hormone therapy with tamoxifen, grade I obesity and mild ethanol habits with no recent history of alcohol consumption. Initial symptoms of back pain with anterior irradiation with relief in foetal position, with associated anorexia and nausea. Analyses showed leucocytosis (leucocytes 18800/µl) with a neutrophilic predominance (neutrophils 83%), C-reactive protein (CRP 16.9 mg/dl), hyperamylasaemia (amylase 345 U/L) and hypertriglyceridemia (triglycerides 3281 mg/dl). Abdominal-pelvic computed tomography with evidence of acute oedematous pancreatitis with marked peripancreatic inflammatory densification and extension to the right anterior pararenal space and homolateral parietocolic gutter. Final diagnosis of severe acute pancreatitis due to hypertriglyceridemia in a patient under tamoxifen. Fluid therapy and insulin infusion were necessary, with clinical and analytical improvement and subsequent progression on the diet with good tolerance. Hypertriglyceridemia-induced acute pancreatitis can be associated with several risk factors, such as uncontrolled diabetes mellitus, alcoholism, obesity and certain medications, such as tamoxifen. The fact that this patient is on hormone therapy with tamoxifen appears to be the main risk factor, although she also has grade I obesity. In these cases, it is imperative to discontinue the triggering drugs and avoid other risk factors.

Keywords: acute pancreatitis, hypertriglyceridemia, tamoxifen

 DOI: 10.12890/2024_V11Sup1

[Abstract:0386]

INVESTIGATING THE PRESENCE OF UNDERLYING CHRONIC AIRWAY DISEASE IN PATIENTS WITH COUGH AND DYSPNEA AFTER COVID-19

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Introduction: COVID-19 disease and long COVID-19 syndrome are associated with the presence of cough or shortness of breath, even in patients without underlying lung disease.

Aim: This study aims to investigate the presence of underlying chronic airway disease in patients with cough and dyspnoea lasting >4 weeks after COVID-19 illness in the era of Omicron variant prevalence.

Materials and Methods: Patients who visited the outpatient clinic with cough or shortness of breath lasting >4 weeks after being sick with COVID-19 (03/2022-06/2023) participated. Demographic characteristics, smoking habit and patient history were recorded. They also underwent spirometry before and after administration of bronchodilation with salbutamol (400 mcg).

Results: A total of 87 patients participated, 38 males and 49 females with a median age of 52 years. Twenty-six patients (29.9%) had a known history of asthma. Of the remaining 61 patients who had no known history of underlying lung disease, 19 showed reversibility to FEV1 ≥200 mL, while 2 patients showed irreversible airway obstruction with a FEV1/FVC ratio <0.7.

Conclusions: COVID-19 may play a vital role in the initiation of asthma pathogenesis. It should be considered that asthma associated with a viral infection may be the underlying cause of prolonged cough and dyspnoea after COVID-19 illness. It is also possible to detect other obstructive diseases such as chronic obstructive pulmonary disease in the context of follow-up after the COVID-19 disease.

Keywords: *COVID-19*, *cough*, *dyspnoea*

[Abstract:0404]

ARTHRITIS OF DIGESTIVE ORIGIN

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Case Presentation: A 71-year-old male, with a history of haemorrhagic pancreatitis in 2021, presented with painful erythematous nodules on his legs, linked to recent amoxicillin use. Despite being a former severe ethanol consumer, he had no current toxic habits or prior surgeries. Physical examination revealed inflammatory nodules and oligoarthritic (left ankle and right metacarpophalangeal joints). Laboratory results showed elevated amylase, lipase, and inflammatory markers. No abdominal pain or vomiting was reported. A CT scan confirmed mild acute pancreatitis, and a skin biopsy indicated pancreatic panniculitis. Treatment with prednisone led to clinical improvement.

Discussion: The PPP syndrome, characterized by the triad of polyarthritis, pancreatic panniculitis, and pancreatitis, is a rare condition with fewer than 30 reported cases. Pancreatitis, whether acute or chronic, is often asymptomatic in a significant proportion of patients, demanding a high level of suspicion for diagnosis.

The syndrome's pathogenesis is linked to the release of pancreatic enzymes into systemic circulation, facilitated in this case by a pancreatic pseudoaneurysm. Cutaneous involvement presents as painful nodules, often the initial symptom, while joint manifestations involve polyarthritis, commonly affecting metacarpophalangeal joints. Osteolytic lesions may lead to fractures.

Treatment focuses on addressing abdominal symptoms, with occasional surgical interventions. Corticosteroids and anti-inflammatories may not consistently alleviate symptoms. Somatostatin analogues and plasma exchange have been reported in select cases of persistent hyperamylasaemia and hyperlipaemia.

Conclusions: PPP syndrome, though rare, necessitates recognition due to its diverse clinical manifestations involving the skin, joints, and pancreas. The complex interplay of these components requires a multidisciplinary approach for effective management.

Keywords: *asymptomatic pancreatitis*, *polyarthritis*, *pancreatic panniculitis*

[Abstract:0416]

PROGNOSTIC VALUE OF THE MELD 3.0 SCORE AND ITS ASSOCIATION WITH MALONDIALDEHYDE IN SEVERE ACUTE ALCOHOLIC HEPATITIS

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Purpose: Severe alcoholic hepatitis (sAH) has a high mortality, up to 50% in some series. Lipid peroxidation plays a fundamental role in its pathogenesis and malondialdehyde (MDA) has been related to survival. MDA combination with MELD could improve its accuracy. Recently, a variant of the MELD score (MELD 3.0) has been developed, which includes sex and albumin, which allows improving the estimation of kidney function. The aim of

 DOI: 10.12890/2024_V11Sup1

this study is to verify if MELD 3.0 and its combination with MDA improves the value of the original score.

Methods: Forty patients with sAH (modified Maddrey ≥32) were included. The next variables were determined: INR, creatinine, bilirubin, sodium, sex, and albumin. Additionally, serum MDA levels were determined at admission. To calculate both the MELD-MDA and MELD-MDA 3.0 scores, the formula used in a previous study was used: (2xMDA) + MELD (or MELD 3.0).

Findings: Of the 40 patients, 31 were male and 35% of them died at 180 days. Deceased patients had higher MELD (p=0.032), MELD-Na (p=0.015), MELD 3.0 (p=0.038), MDA (p=0.001), MELD-MDA (p<0.001) and MELD-MDA 3.0 (p=0.001). The AUROCs were, in descending order: MELD-MDA 3.0 (0.82), MELD-MDA (0.80), MDA (0.77), MELD 3.0 (0.71), MELD-Na (0.67) and MELD (0.66).

Conclusions: MELD 3.0 in sAH improves the prognostic value. In addition, the association of MDA provides greater accuracy, which corroborates that lipid peroxidation is not only a pathogenic mechanism of the disease, but that its intensity could be related to prognosis. A validation study of these results in an external cohort is needed.

Keywords: *alcoholic hepatitis, alcohol dependence, lipid peroxidation*

[Abstract:0431]

LOPERAMIDE-INDUCED ACUTE PANCREATITIS: A COMPREHENSIVE CASE STUDY ON AN OVERLOOKED DRUG-RELATED ADVERSE EVENT

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Purpose: Since loperamide is a widely used over-the-counter drug in the symptomatic control of diarrhoea, its causal association with pancreatitis should not be overlooked. Loperamide, which has an opioid receptor affinity, may trigger a spasmogenic effect on Oddi's sphincter and reflux of secretions into the pancreas. However, evidence of published cases in the literature is scarce.

Methods: We report a case of loperamide-induced acute pancreatitis in a 30-year-old female patient without other identifiable risk factors.

Findings: The patient presented to the emergency department with deep sudden-onset epigastric pain, as well as elevated serum and urine (>3000 units) amylase levels. The patient was lean (BMI<25 kg/m^2), and reported no history of bile stones, alcohol consumption or abdominal trauma. She had not been taking any prescribed or over-the-counter medication, except loperamide due to multiple episodes of diarrhoea the day before. The computed tomography (CT) and magnetic resonance cholangiopancreatography scans (MRCP) confirmed the presence of acute pancreatitis and ruled out any anatomical or structural abnormalities in the biliary system or pancreas that could explain its development. All viral tests conducted for known causative agents yielded negative results. Upper gastrointestinal endoscopy excluded morphological abnormalities near the Vaterian sphincter. Finally, we were able to rule out any immunological diseases that are related to IgG4. Following loperamide discontinuation and conservative management with bowel rest, intravenous fluids and analgesics, the patient demonstrated significant gradual improvement and was eventually discharged.

Conclusions: Clinicians should be aware of loperamide's potential to induce pancreatitis and proactively share this risk with patients.

Keywords: *pancreatitis, loperamide, drug-related adverse events*

[Abstract:0443]

ACUTE PANCREATITIS AND HEPATOTOXICITY FOLLOWING MRNA COVID-19 VACCINATION: A RARE CASE REPORT

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Introduction: We present a rare case of acute pancreatitis and hepatotoxicity following mRNA COVID-19 vaccination.

Case Presentation: A twenty-year-old patient with no known medical conditions, medication use, or alcohol consumption presented to the emergency department with abdominal pain, weakness, and loss of appetite. The patient had not experienced a COVID-19 infection, used herbal products, or started any new medications. The patient had received the mRNA-Covid vaccine shortly before the symptoms appeared.

Physical examination revealed tenderness in the epigastric region. Laboratory results upon admission showed elevated AST (2557 U/L), ALT (2195 U/L), ALP (359 U/L), total-bilirubin (1.9 mg/dL), direct bilirubin (0.69 mg/dL), GGT (196 U/L), amylase (269 U/L), lipase (363 U/L), and INR (1.39). Other tests were normal. The patient was hospitalized.

Radiological imagines revealed no abnormalities. Erosive gastritis was detected during endoscopy, while colonoscopy showed no abnormalities.

Considering the laboratory and imaging findings, the patient was diagnosed with acute pancreatitis and hepatotoxicity following COVID-19 mRNA vaccination. Conservative treatment was initiated, resulting in decreased epigastric pain and improvement in amylase, lipase, and other values. After one month of treatment, laboratory tests before discharge showed normal values. The patient was discharged after follow-up appointments.

Conclusions: While cases of acute pancreatitis and hepatotoxicity have been reported with various drugs, instances related to COVID-19 mRNA vaccines are rare. mRNA vaccines have

 DOI: 10.12890/2024_V11Sup1

become crucial in the fight against the pandemic. Studies suggest that COVID-19 infection itself may lead to hepatotoxicity and pancreatitis. The virus's spike protein, utilizing angiotensin-converting enzyme 2 and transmembrane protease serine 2 proteins in human cells, is thought to trigger hepatotoxicity and pancreatic inflammation.

Keywords: *mRNA COVID-19 vaccination, acute pancreatitis, hepatotoxicity*

[Abstract:0446]

SERUM IRISIN IN ALCOHOL-RELATED LIVER DISEASE

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Purpose: Alcohol-related liver disease is a continuum from the early stages of hepatic steatosis to advanced cirrhosis. Increased influx of enterobacteria into the portal circulation stimulates the Kupffer cell and triggers an inflammatory response that promotes fat accumulation and fibrogenesis.

Aim: The aim of the present study is to determine which factors are associated with the intensity of liver fibrosis in patients with alcohol dependence.

Methods: The study included 58 patients with alcohol dependence, who performed muscle function tests (handgrip and walking test), DEXA body composition and serum irisin levels. To estimate liver fibrosis, the FIB-4 index is calculated, composed by age, GOT, GPT and platelets.

Findings: Mean age was 51.3 years (SD: ±10.5). The high-risk group for fibrosis, according to the FIB.4 (34 patients) was associated with higher body fat (25,089.9 grams (SD: ±9,368.6) vs 19,666.5 (SD: ±8,111.9); p=0.042), smaller appendicular muscle component (20. 832.2 grams (SD: ±2,851.2) vs 22,724.8 (SD: ±4,267.8); p=0.047), as well as higher frequency of altered scores in both the handgrip and walking test (67.6 vs 38.1%, p=0.029 and 74.1 vs 39.3%, p=0.009, respectively). Finally, Irisin levels were markedly elevated in patients with some risk of fibrosis (666.2 pg/mL (SD: ±352.3) vs 368.9 (SD: ±319.4), p=0.025). When performing logistic regression with these variables, we found that only Irisin (RR= 1.003 [1.000-1.006]) have an independent value.

Conclusions: Serum Irisin levels are independently related to the severity of liver fibrosis in patients with alcohol dependence and may have a protective effect.

Keywords: *alcohol-related liver disease, sarcopenia, gut-liver-muscle axis*

[Abstract:0577]

A STRANGE CASE OF SPLENOMEGALY

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Case Presentation: Man, 59 years old. He went to the Emergency Department due to 4 weeks of anorexia and abdominal pain. In the previous 5 days with uncontrollable diarrhoea (>10 episodes/day) with mucus. Physical examination revealed palpable splenomegaly 6cm below the costal margin. From the complementary study, the following highlights: thrombocytopenia (39x10^9/L); Abdomino-pelvic CT revealing "in the right hypogastrous small segment with concentric parietal thickening, exuberant homogeneous splenomegaly measuring 27 cm in longitudinal diameter."

Admitted to an Internal Medicine (IM) for study. Assuming an infection with an abdominal starting point, empirical antibiotic therapy with piperacillin-tazobactam was started. On the 3rd day of hospitalization, due to isolation of *Campylobacter jejuni* in stool culture, directed antibiotic therapy with azithromycin was started, which he continued for 5 days, with clinical and analytical improvement. The case was discussed with Haematology, who suggested that it was an inflammatory response to intestinal infection and a presumptive diagnosis of MALT lymphoma, inaccessible to biopsy. He was discharged on the 9th day of hospitalization and referred to an IM consultation for surveillance.

Conclusions: The authors highlight this case for its significant splenomegaly, probably secondary to an infectious condition in a patient with MALT lymphoma of infrequent location. Involvement of the small intestine represents only approximately 3% of MALT lymphomas, and there is evidence that *Campylobacter jejuni* infection is implicated in its pathogenesis.

Keywords: *splenomegaly, MALT lymphoma, infection*

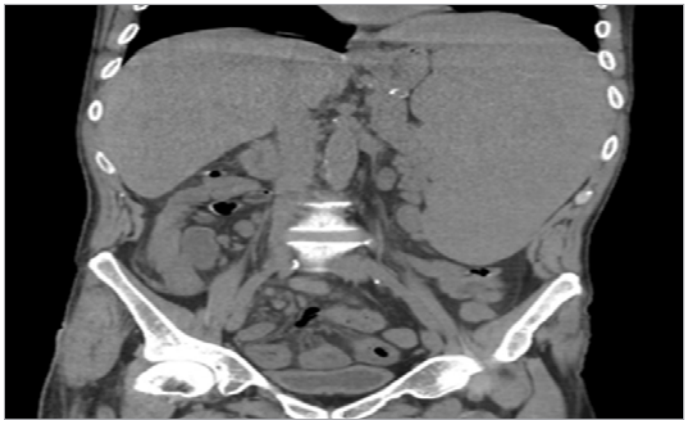

Figure 1. *Abdominal CT.*

 DOI: 10.12890/2024_V11Sup1

[Abstract:0619]

AS A RARE CAUSE DRUG-INDUCED ACUTE PANCREATITIS SECONDARY TO IVERMECTIN

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Purpose: Acute pancreatitis is a common inflammatory disease of the gastrointestinal tract. Although the main etiological factors are gallstones and alcohol, less commonly some drugs may also be considered as the cause of pancreatitis. Causal relationships between drugs and acute pancreatitis are largely based on case reports or case series (1).

Case Description: 43-year-old man without any underlying disease presented with an acute-onset complaint of epigastric and belt-like upper abdominal pain to our emergency department. One week before admission, the patient had used ivermectin at a dose of 18 mg due to scabies infection. On physical examination there was epigastric tenderness. Laboratory workup showed elevation in amylase (496 U/L). However, there was no elevation in transaminases. Abdominal CT scan showed oedema and focal enlargement of the pancreas, and these findings were consistent with pancreatitis.

Findings: Gallstones were not present in the imaging performed for the etiological investigation of acute pancreatitis in this patient. Serum triglyceride and calcium levels were normal. There was no alcohol consumption of the patient. The only etiological factor that could be detected was the ivermectin used by the patient.

Conclusions: Pancreatitis is a gastrointestinal disease that can be fatal, especially when it occurs after taking drug. As far as we could detect in medical article database searches, this was the first case of ivermectin-associated pancreatitis identified.

Reference:

1. Del Gaudio, Angelo, et al. "Drug-Induced Acute Pancreatitis in Adults: Focus on Antimicrobial and Antiviral Drugs, a Narrative Review." Antibiotics 12.10 (2023): 1495.

Keywords: *drug associated acute pancreatitis, ivermectin, scabies*

[Abstract:0622]

COMPARISON OF CHARLSON COMORBIDITY INDEX, CURE HEMOSTASIS SCORE AND AMERICAN SOCIETY OF ANESTHESIOLOGISTS SCORE CLASSIFICATIONS IN DETERMINING THE PROGNOSIS OF LOWER GASTROINTESTINAL BLEEDING

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Aim: There is not yet an approved scoring system for the treatment and prognosis of lower gastrointestinal bleeding (GI). The aim of our study was to compare the ASA score, CURE haemostasis score and Charlson Comorbidity Index (CCI) to predict outpatient discharge, ward and intensive care unit (ICU) stays of patients with lower GI bleeding admitted to the hospital and to determine their predictive strengths in terms of mortality, rebleeding and surgical visits.

Materials and Methods: Our study will be completed between 1 November 2022 and 1 October 2023. Data of 200 patients who were admitted to our hospital with lower GI bleeding symptoms and underwent colonoscopy were recorded. ASA score, CURE haemostasis score and CCI were calculated by us. Outpatients, patients who were hospitalized only in the ward and ICU and patients who underwent surgery, rebleeding during hospitalization, embolization and in-hospital and first month mortality were grouped.

Results: 35 of 200 patients (17.5%) they had rebleeding on admission, 13 (6.5%) went to surgery, 2 (1%) had arterial surgery. embolization was performed, 7 (3.5%) were in hospital and 1-month death total was calculated. ≥3 best threshold for ASA, CURE and CCI in predicting hospitalization valued. The best threshold value for all scores was calculated to be ≥3 in predicting ICU admission in hospitalized patients. In the complication group, only CURE the best threshold value for the score was found to be ≥4.

Conclusions: ASA, CURE and CCI were found to be significant in all scores in predicting hospitalization in admitted patients and in predicting non-intensive care unit admission in hospitalized patients. The fact that CURE alone was significant in the complication group is significant and contributes to the literature.

Keywords: *ASA score, Charlson index, CURE haemostasis prognosis score, prognosis score, gastrointestinal bleeding*

 DOI: 10.12890/2024_V11Sup1

[Abstract:0651]

THE RELATIONSHIP BETWEEN GASTRIN LEVEL AND ENDOSCOPIC FINDINGS AND UPPER GASTROINTESTINAL BLEEDING RISK SCORING IN PATIENTS WHO APPLIED WITH UPPER GASTROINTESTINAL SYSTEM BLEEDING FINDINGS AND HAD AN ENDOSCOPY

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Aim: Acute upper gastrointestinal bleeding (AUGIB) is an important cause of mortality and morbidity despite all advances in diagnosis and treatment. In order to determine the most appropriate treatment for AUGIB, risk assessment should be performed early. We aimed to examine the effect of serum gastrin-17 (G-17) level on prognosis in patients presenting with non-variceal AUGIB.

Materials and Methods: A prospective, single centre, observational study was conducted at the Department of Emergency, Ankara City Hospital, from June 2022-August 2023. The study enrolled patients who were 18 years of age or older and exhibited symptoms of AUGIB who underwent an endoscopy. The patients included in the study were followed for 1 month. Primary outcome was need for clinical intervention: blood transfusion, endoscopic intervention. Secondary outcome was re-bleeding, mortality, admission intensive care unit and prolonged length of stay in hospital.

Results: 107 patients were included. Median age was 62 with 33% women. Peptic ulcer was found to be the most frequent cause of bleeding (62.6%) and most of them were Forrest-3 ulcers (46.26%). 48% of the patients required blood transfusion and 27% required endoscopic intervention, 6.5% had re-bleeding and 5.6% mortality. No statistically significant relationship was detected between serum G-17 level and primary, secondary outcomes, mortality-rebleeding composite-endpoint and risk scoring systems (p>0.05).

Conclusions: No relationship was found between serum G-17 level and the prognosis of AUGIB. The limitations in our study may have caused this. There is a need to conduct new prospective studies considering the limitations mentioned in our study.

Keywords: *gastrins, gastrointestinal hemorrhage, peptic ulcer hemorrhage*

Clinical Outcomes	Situation	Median Serum Gastrin-17 Level(pg/ml)	p value
Peptic Ulcer	No	1298.03 (772.64-3672.56)	0.752
	Yes	1225.7 (830.47-2535.31)	
Forrest Ulcer Classification	Low Risk (2B, 2C, 3)	1134.03 (924.37-1743.87)	0.589
	High Risk (1A,1B,2A	1474.87 (773.93-2898.44)	
Re-Bleeding	No	1373.09 (796.1-3116.63)	0.194
	Yes	886.93 (740.27-1242.07)	
Mortality	No	1353.99 (815.76-2959.71)	0.153
	Yes	871.58 (711.15-1379.51)	
Rebleeding-Mortality Composite End-point	No	1379.61 (814.32-3348.68)	0.085
	Yes	886.93 (727.92-1379.51)	

Table 1. *Relationship of Gastrin-17 Level with clinical outcomes.*

[Abstract:0665]

WHEN CROUCHING GAIT REVEALS CROHN'S DISEASE

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Inflammatory bowel disease, which includes Crohn's disease and ulcerative colitis is known for its association with a constellation of extra-digestive manifestations, among them, musculoskeletal complaints are common and often related to spondyloarthropathies. We report the case of a young man with a rare gastrocnemius myalgia syndrome that unveiled Crohn's disease. In our case, we discuss the place of anti-proteinase 3 anti-neutrophil cytoplasmic antibodies (PR3-ANCA) in the diagnosis of Crohn's disease, and an original aspect of muscle biopsy is highlighted.

Keywords: *crohn's disease, myalgia, myositis, gastrocnemius, aseptic abscess, extra-digestive*

 DOI: 10.12890/2024_V11Sup1

[Abstract:0672]

INCREASED IGG LEVELS AT DIAGNOSIS ARE ASSOCIATED WITH WORSE PROGNOSIS OF PATIENTS WITH PRIMARY BILIARY CHOLANGITIS

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Purpose: A proportion of patients with primary biliary cholangitis (PBC) present with increased serum IgG (I-IgG) levels at baseline, though not fulfilling criteria to establish the diagnosis of autoimmune hepatitis (AIH)/PBC variant. Our aim was to evaluate whether I-IgG levels have prognostic significance in non-cirrhotic PBC patients as similar data missing.

Methods: Retrospective analysis of prospectively collected data from 675 PBC patients with available serum IgG levels at first evaluation (median follow-up: 60.4 (109.5) months).

Findings: Amongst 592 non-cirrhotic patients, 97 with I-IgG levels were more frequently females (p=0.049), having higher frequency of concurrent autoimmune diseases (p=0.01), PBC-specific ANA (p<0.001), sp100 (p<0.001) and gp210 (p=0.029) compared to 495 patients with normal IgG (N-IgG) levels. PBC patients with I-IgG were older at disease onset and diagnosis ((p<0.001) for both) and had significantly lower albumin (p<0.001) and higher AST (p<0.001), ALT (p=0.005), ALP (p=0.006), γGT (p=0.038) and IgM levels (p<0.001) compared to those with N-IgG. Among 445 non-cirrhotic UDCA-treated PBC patients with > 12 months of follow-up, those with I-IgG tended to have less frequently a GLOBE score <= 0.30 compared to those with N-IgG (69.7% vs 79.8%, p=0.07). In Kaplan-Meier analysis, I-IgG was associated with increased frequency of cirrhosis development (Breslow, p=0.03) and liver-related death/or liver transplantation (Breslow, p=0.029) during follow-up in non-cirrhotic PBC patients.

Conclusions: This long-term follow-up study demonstrates that I-IgG levels characterize a subgroup of non-cirrhotic PBC patients with faster disease progression and increased probability of liver-related death. These patients would benefit from stricter follow-up strategies and supplementary second line treatment.

Keywords: primary biliary cholangitis, autoimmune hepatitis, IgG

[Abstract:0674]

EVALUATION OF THE FREQUENCY, CHARACTERISTICS AND COURSE OF SPONDYLOARTHRITIS IN INFLAMMATORY BOWEL DISEASE

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Purpose: In our study, we aimed to draw attention to the coexistence of these two clinical pictures by presenting the frequency, characteristics and course of spondylarthritis in the follow-up of patients diagnosed with inflammatory bowel disease (IBD) to increase the level of knowledge in the literature on this subject and to help clinicians to recognize the association of spondylarthritis in the IBD patient group earlier.

Methods: All patients with ulcerative colitis (UC) and Crohn's disease (CD) were recruited at outpatient clinic visits. Rheumatologic questioning of the patients was based on anamnesis and examination at the outpatient clinic visit. Patients with a previous rheumatologic diagnosis were included in the study classified according to the year of diagnosis.

Findings: 58 patients with UC and 72 patients with CD were included in the study. Spondylarthritis (SpA) involvement was present in 49 of all patients (37.7%). 33 of CD patients (n=72) and 16 of UC patients (n=58) had SpA involvement. The frequency of SpA was significantly higher in CD compared to UC (p=0.033).

When the years of diagnosis of IBD and SpA were compared, patients who were diagnosed with IBD before SpA were more than patients who were diagnosed with SpA before IBD. The difference between the time of diagnosis of SpA after IBD was 7 (2-13) years in the ulcerative colitis group and 3 (2-7) years in the Crohn's disease group (p=0.213). The rate of SpA in UC and CD patients was not significantly different according to gender and age (p>0.05).

Keywords: inflammatory bowel disease, spondyloarthritis, extraintestinal involvement

	Ulcerative colitis (n=58)	Crohn's disease (n=72)	p
Spondylarthritis			0.033
no	42 (72.4%)	39 (54.2%)	
yes	16 (27.6%)	33 (45.8%)	
Diagnosis times			0.970
Those diagnosed with IBD first	10 (62.5%)	20 (60.6%)	
SpA tanisini once alanlar	2 (12.5%)	5 (15.2%)	
Those with simultaneous diagnosis	4 (25%)	8 (24.2%)	

Table 1. *Differentiation between ulcerative colitis and Crohn's disease, SpA frequency distribution, comparison according to diagnosis years.*

DOI: 10.12890/2024_V11Sup1

[Abstract:0702]

A MULTIDISCIPLINARY APPROACH IN RECURRENT MUCINOUS ADENOCARCINOMA OF THE GALLBLADDER, WITHOUT CALCULOSIS

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Introduction: On 19.12.2022, 51y. man, regular annual check-up at our facility, without complaints, without symptoms, good general health.

Comorbidities: hyperlipidaemia, hepatic steatosis, non-smoker, no allergies, COVID-19-vaccinated.

Objectives: Multidisciplinary approach and management for early detection and disease treatment.

Methods: Ultrasound, laboratory, ECG, X-ray, CT with contrast, surgical-treatment, chemotherapy, PET/CT.

Results: PZU "Echomedika" performed abdominal echo. Hepar steatosis, gall bladder spectated, with decent size, in its wall a clearly limited, hyperechoic formation, on wide base, volume 3.75 cm^3, with discrete vascularization on colour Doppler. Abdominal CT indicated with contrast. Lab. results: 21.12.2022: SE-7/20; Hgb-140; TBI-11.1; Trig-1.67; sFe-22; Hol-3.5; LDL-1.7; AST-40; ALTI-55; CRP-0.6; Urea-4.4; Glik-5.9; GGT-46; create-93; HbA1C-6.0. CT with contrast: 03.01.2023 in General Hospital - Kumanovo, differs with the echo findings. February 2023, second opinion asked in Acibadem Clinic-Sofia, where CT finding is in contrast with the echo from our facility.

- February 14, 2023: operated in Acibadem City Clinic-Sofia, operative result gallbladder mucinous adenocarcinoma.
- March 21, 2023: 8 courses chemotherapy with Capecitabine at the University Clinic of Oncology-Skopje.
- May 06, 2023: at PET/CT Scan Institute-Skopje: finding normal.
- September 13, 2023: new examination, jaundiced, at PZU "Echomedika", echography: Dilatation of intra and extrahepatic bile ducts, suspected choledochus relapse.
- September 14, 2023: admitted to Acibadem City Clinic-Sofia, endoprosthesis of choledochus with metal prosthesis.
- October 9, 2023: digestive Surgery clinic-Skopje, operated Whipple, with hepatic bisegmentectomy. Histology obtained for Adenocarcinoma Mucinosum Recidivans Hepatis.
- November 15, 2023: referred for chemotherapy in Vienna, with Prof. Dr. Christoph Zielinski. Currently stable, no MS changes

Conclusions: Importance of internist approach for early detection and treatment of neoplasms.

Keywords: *ultrasound, carcinoma, internist*

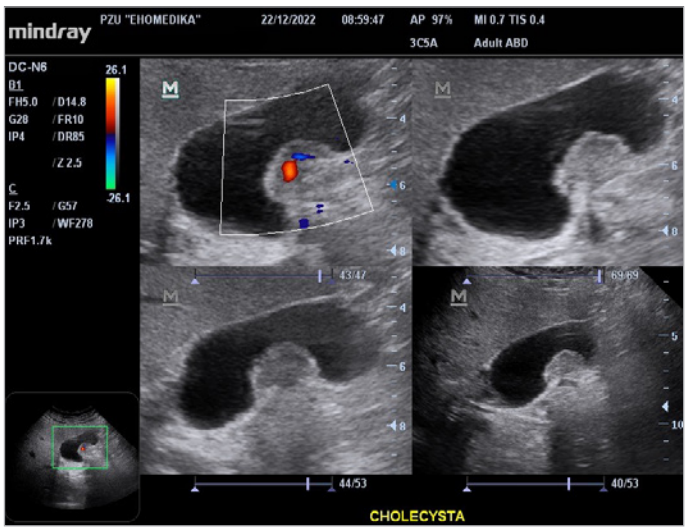

Figure 1. Ultrasiund examination finding.

[Abstract:0703]

LIVER BIOPSY, DIAGNOSTIC YIELD AND COMPLICATIONS: EXPERIENCE FROM AN INTERNAL MEDICINE DEPARTMENT

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Introduction: Liver biopsy (LB) is an essential tool for diagnosing and staging liver diseases.

Currently, percutaneous liver biopsy (PLB) and transjugular biopsy (TB) are the most common methods for obtaining liver samples. This study addresses the utility of LB performed in an Internal Medicine Department focusing on indications, pathological findings, clinical diagnosis, and complications.

Methods: We conducted a retrospective study of the LB performed in our Department for two years. Variables like sex, age, type of biopsy (PLB or TB), indication, clinical diagnosis, complications, length of hospital stay, and type of admission (scheduled or conventional) were included.

Results: A total of 248 patients were included, mean age 55 years (SD +/- 13), 43% men and 57% women. PLB accounted for 90.3% and TB for 9.7%.

Main indications were abnormal liver function test (17%), suspected autoimmune hepatitis or primary biliary cholangitis (19.8%), chronic hepatitis (14%), and cholestasis (12.5%). Diagnostic yield reached 94%. Autoimmune hepatitis was the most frequent diagnosis (30%), followed by liver steatosis (10.9%), primary biliary cholangitis (8.5%) and steatohepatitis (6.9%). The most frequent complication was pain (17.7%), in all cases mild and responded to analgesics. Five cases of vasovagal syncope were reported, and only 2 hematomas occurred.

Conclusions: 1. Liver biopsy is a safe technique when performed by trained professionals.

DOI: 10.12890/2024_V11Sup1

2. In our series, only 6% of the cases remained undiagnosed.
3. Mild pain was the most common complication.
4. No major complications related to the test were reported.

Keywords: *liver, biopsy, complications, indications, percutaneous, transjugular*

[Abstract:0714]

DIAGNOSIS AND FOLLOW-UP OF CELIAC DISEASE – A CONTEMPORARY PATIENT MATERIAL

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Celiac disease (CeD) is a common chronic disease with an estimated prevalence of 1%. Serology is a crucial diagnostic tool screening suspected CeD. The outcome of treated CeD is considered good, but current evidence points to higher rates of incomplete mucosal healing than previously estimated.

The aim was to investigate the pattern of serology and biopsy at time of diagnosis as well as the effect of follow-up and the outcome for treated CeD one year after diagnosis.

We prospectively enrolled patients with suspected CeD. All participants with CeD were referred to one individual consultation with a clinical dietician, and they were invited to a follow-up examination after 12 months with a new gastroscopy.

In total 126 of the 193 participants were diagnosed with CeD. Among them 5 participants had a negative (<4) IgA-Tissue transglutaminase (TG2) and 15 had a negative (<20) IgG-Deamidated gliadin peptide (DGP). Five of the participants would be classified as classic seronegative CeD. Only one participant had a negative DGP and TG2. Ninetyfive of the participants came to the 1-year control. Seventytwo had achieved complete mucosal healing (Marsh 0 or 1), while 89 achieved an improvement of their initial Marsh.

Multiple participants with a classic seronegative CeD according to TG2 had a positive DGP at time of diagnosis. It might be reasonable to look more into DGP's place in diagnosis of CeD. One year after the diagnosis, the prognosis for mucosal healing is good. Overall, almost all patients have some degree of healing.

Keywords: *celiac disease, endoscopy, villous atrophy, mucosal healing*

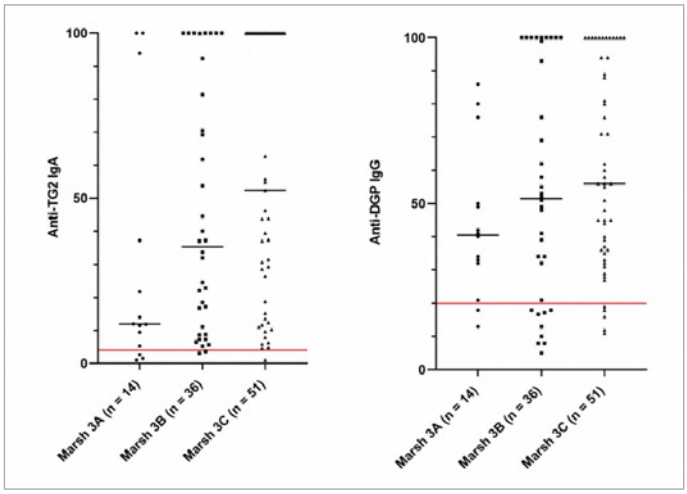

Figure 1. *Marsh at diagnosis compared to Serology.*

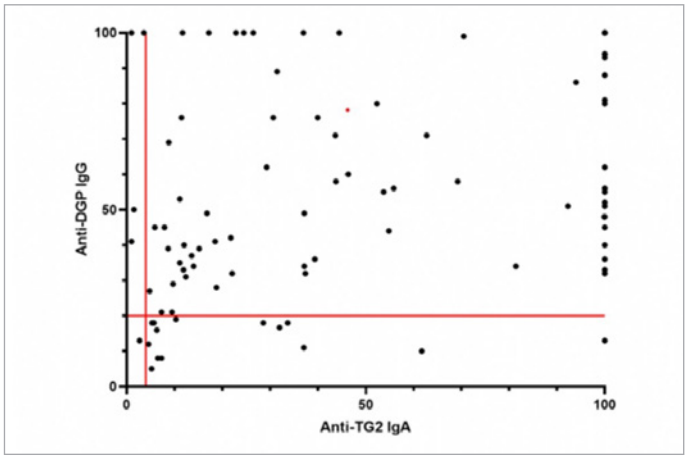

Figure 2. *Serology at time of diagnosis.*

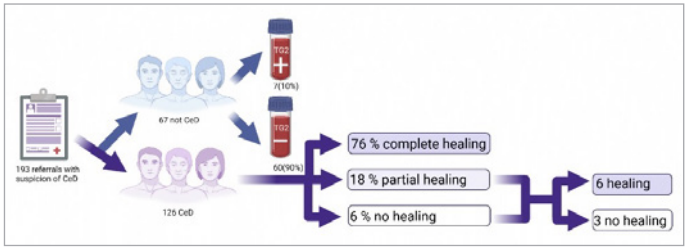

Figure 3. *Summary of abstract.*
The study and the results explained as a single figure.

DOI: 10.12890/2024_V11Sup1

[Abstract:0725]

A LOW RATE OF INDIVIDUALS ARE SCREENED FOR HEPATITIS C IN PRIMARY CARE CENTERS IN BARCELONA

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Introduction: In Spain, the estimated prevalence of anti-HCV+ and detectable HCV RNA in the general population at primary care centres (CAPs) is 0.85% and 0.22%, respectively. However, screening rates for the hepatitis C virus (HCV) remain unknown. This study aimed to assess the percentage of individuals screened in CAPs, determine the prevalence of HCV, linkage to care, and evaluate the application of hepatitis C screening guidelines.

Methods: A retrospective search was conducted in seven Northern Barcelona primary care centres between January 2021 and April 2023. Screening rates for HCV among individuals who underwent laboratory tests were explored, and medical records of those testing positive for anti-HCV were reviewed.

Results: Among 90, 170 individuals tested during the study period, 10% (9,798) were screened for HCV, and 3% (277) tested positive. Reflex HCV RNA testing was performed and 17% (48) tested positive, 0.5% of screened individuals. Only 38% of the 277 anti-HCV+ individuals reported risk factors for hepatitis C and 24% had elevated transaminases. From the 48 viraemic patients, 58% (28) received treatment (including 10 patients F3-4 and one with decompensated liver disease), 29% didn't receive treatment due to a short life expectancy, and 13% due to a change in healthcare area.

Conclusions: Only 10% of individuals attending CAPs were screened for HCV, with 0.5% testing positive, double prevalence than estimated in general population in Spain. Over half (54%) of anti-HCV+ patients did not report risk factors or elevated transaminases, indicating that current Ministry guidelines may not adequately identify these individuals for screening.

Keywords: hepatitis C, screening, primary care

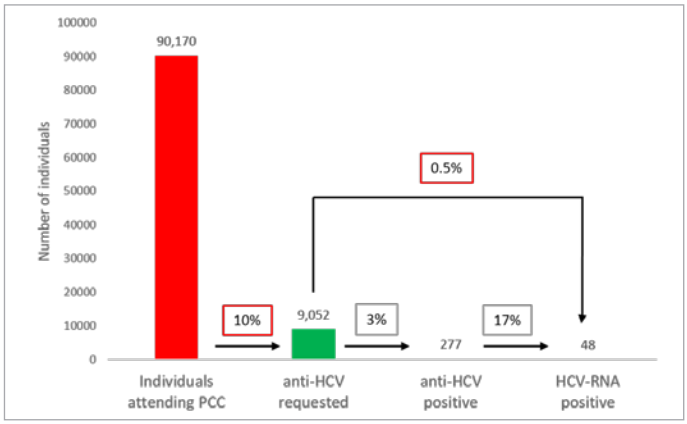

Figure 1. *Individuals attending and tested for HCV in primary care centres (PCC).*

[Abstract:0742]

LIVER STIFFNESS MEASUREMENT PREDICTS CLINICAL OUTCOMES IN AUTOIMMUNE HEPATITIS

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Background: Liver stiffness measurement (LSM) can adequately predict poor clinical outcomes in patients with diverse liver diseases. However, the role of LSM as predictor of disease progression in autoimmune hepatitis (AIH) remains to be determined.

Aim: We evaluated the role of LSM as predictor of disease progression and poor clinical outcomes in AIH.

DOI: 10.12890/2024_V11Sup1

Methods: Multicentre, retrospective study of 439 patients with histologically confirmed AIH and at least 2 LSMs during follow-up. The association of LSM with poor outcomes (decompensation, death/liver transplantation) and cirrhosis development was estimated with Cox-regression analysis and its discriminating capacity with receiver operating characteristic (ROC) curve.
Results: Three hundred-one patients (71%) were female with median age of 52 years (IQR:40-62). Fourty-one (11%) patients were cirrhotic at diagnosis and 433 (99%) received immunosuppression. The first LSM after 6-months of treatment (LSM 6m) was performed at a median time of 2.18 years (IQR: 1.19-4.68), with a median value of 6kPa (IQR: 4.5-8.5) and with 332 patients (76%) on biochemical response (BR). During follow-up, 8/439 (2%) and 26/398 (7%) patients developed poor outcomes and cirrhosis respectively. LSM 6m was higher among patients with poor outcomes (13.5 vs. 6; p<0.001) and was independently associated with cirrhosis development (HR: 1.300; CI:95% 1.153-1.465; p<0.001), irrespectively of the presence of BR. A cut-off of 8.45 kPa could accurately predict the risk of cirrhosis development or poor clinical outcomes with AUC of 0.859 (95%CI: 0.789-0.929) and 0.900 (95%CI: 0.847-0.954) respectively.
Conclusions: Cirrhosis development and poor outcomes are rather infrequent in AIH. LSM after 6-months of treatment initiation has a significant role in predicting worse prognosis in AIH.

Keywords: *autoimmune hepatitis, liver stiffness measurement, poor outcome*

[Abstract:0750]

ENTEROPATHY WITH OLMESARTAN - A RARE CAUSE OF CHRONIC DIARRHEA

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Olmesartan is a widely used antihypertensive drug. Since its approval several cases of enteropathy associated with it have been described, considering as a distinct nosological entity. The clinical presentation may include chronic diarrhoea, weight loss, abdominal pain, nausea, vomiting and fatigue. Histologically, it presents findings similar to those of celiac disease, with villous atrophy of the duodenal mucosa. The time of exposure to the drug until the onset of symptoms varies from months to years. 75-year-old woman with arterial hypertension, medicated with olmesartan for the past 6 years. That went to the hospital with watery diarrhoea persisting for 4 months, accompanied by unquantified weight loss. Denied presence of blood, mucus or pus in stools, fever and abdominal pain. No epidemiological context. To admission, she was hypotensive and dehydrated. Initial study revealing acute kidney injury, hypomagnesemia, and hypokalaemia. Admitted for study and treatment, antihypertensive medication temporarily suspended. From study: no inflammatory markers; negative bacteriological, virological, and parasitological study of stools; negative HIV and hepatotropic virus serologies; normal thyroid function; total proteins, albumin, protein electrophoresis, and serum light chains without alterations; negative anti-transglutaminase and anti-gliadin antibodies; upper and lower digestive endoscopies without macroscopic changes, and no biopsies were performed. From the suspect olmesartan-induced enteropathy, the medication was suspended and spontaneous resolution of diarrhoea was observed. One-month post-discharge, no recurrence of diarrhoea has been reported. Olmesartan-induced enteropathy is an uncommon cause of chronic diarrhoea, whose pathophysiology is not fully understood. The authors emphasize need for a high index of suspicion in diagnosing.

Keywords: *chronic diarrhoea, olmesartan, deprescription*

[Abstract:0771]

THIAMINE DEFICIENCY IN A PATIENT WITH CHRONIC ALCOHOL CONSUMPTION: A RARE CAUSE OF LACTIC ACIDOSIS TYPE B

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Purpose: Lactic acidosis (Lactate>4 mmol/L) is observed when the production of lactic acid exceeds its excretion and commonly associated with reduced tissue perfusion. The aim of our study was to describe a rare cause of lactic acidosis that requires a high degree of clinical suspicion and a detailed medical history.
Methods: A 67-year-old man with a history of chronic alcoholism was admitted to our clinic due to bradycardia, hypoglycaemia (glucose: 30 mg/dL) and lactic acidosis with an increased anion gap (pH: 6.98, lactate > 15 mmol/L, HCO_3: 7 mmol/L). On clinical evaluation, no fever, hypotension, or other signs of sepsis were noticed (SOFA score: 0).
Findings: Lactic acidosis is divided into two types. Type A lactic acidosis is associated with tissue hypoperfusion, which was excluded from the clinical findings (normal blood pressure, respiratory rate, saturation, absence of fever).
Regarding type B, presence of diabetes, drug overdose, human immunodeficiency virus infection and neoplasms (negative imaging assessment) were excluded. Based on the history of chronic alcoholism, thiamine deficiency was considered as a possible cause of lactic acidosis, so the patient was treated with high doses of thiamine. Rapid restoration of lactic acidosis within eight hours was observed.
Conclusions: Severe thiamine deficiency is a rare cause of lactic acidosis type B, usually seen in patients with chronic alcohol abuse. On clinical suspicion, we should proceed with aggressive

 DOI: 10.12890/2024_V11Sup1

administration of thiamine with the therapeutic criterion being the rapid restoration of lactic acidosis.

Keywords: *alcohol consumption, lactic acidosis, thiamine deficiency*

[Abstract:0777]

THE THYROGASTRIC AUTO IMMUNE SYNDROME: A CASE REPORT

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Introduction: The thyrogastric autoimmune syndrome defines the association between autoimmune thyroid disease and chronic autoimmune gastritis, first described in the early 1960s. It indicate the presence of thyroid autoantibodies in patients with pernicious anaemia.

Case Report: We present the case of a 33-year-old female patient with no pathological history, admitted for exploration of a neuroanemic presentation characterized by pancytopenia evolving in a context of general weakness, accompanied by paraesthesia, cramps, fatigue during walking, and digestive symptoms. The diagnosis of Biermer's disease was established based on a severe, poorly tolerated, macrocytic, normochromic, non-regenerative anaemia, signs of medullary homolysis (rich blue marrow), hypovitaminosis B12, increased indirect bilirubin and LDH, and decreased haptoglobin. Fundic biopsy revealed gastric atrophy, and positive anti-parietal cell antibodies. Further investigation for other autoimmune diseases identified Hashimoto's thyroiditis with positive anti-TPO antibodies. The diagnosis of thyrogastric autoimmune syndrome (Biermer's disease with Hashimoto's thyroiditis) was established, and treatment with injectable IM vitamin B12 was prescribed, with a good therapeutic response and regular follow-up.

Conclusions: it is confirmed that autoimmune thyroid disorders, in particular Hashimoto's thyroiditis, may be frequently associated with other organ-specific, immune-mediated disorders, such as autoimmune atrophic gastritis or celiac justifying systematic screening in patients with either of the two autoimmune conditions.

Keywords: *autoimmune, coexistence,anemia, thyroiditis*

[Abstract:0827]

THE IMPACT OF ALCOHOL CONSUMPTION TO THE PUBLIC HEALTH

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Introduction: Alcohol is a serious problem of the public health, fact which is sustained both by epidemiological data and current practice. The faster diagnostics helps in the reversibility of both anatomic-pathological lesions and symptomatology and biological samples. The prevention of the harmful effects of alcohol abuse represents one of the priorities of the public health.

Methods: We realized a descriptive/retrospective study based on the analysis of clinical observation sheets of patients hospitalized in the Internal Medicine Department of the Emergency Military Hospital "Dr. Alexandru Augustin" from Sibiu, during 1st January 2018 and 31st December 2022. There were included patients with hepatic disease, both with daily and continuous hospitalization. Patients with other medical disorders were excluded.

Results: We identified a total number of 9815 patients with hepatic pathology in the analysed period. Among these ones 2098 patients had secondary hepatic steatosis due to alcohol consumption, 3312 had alcoholic steatohepatitis and 4405 patients had alcoholic hepatic cirrhosis. The prevalence of hepatic disease starts to grow beginning with the fourth decade reaching the top in the 6th decade of life.

The hepatic steatosis due to alcohol consumption was reversible at patients who gave up alcohol. 40% of patients with alcoholic steatohepatitis turned into hepatic cirrhosis, 50% remained at the same level and the rest of 10% presented remission of the disease.

Conclusions: Being aware of the effects of alcohol abuse upon the health is an important objective, the relationship between dose-effect being very close.

Keywords: *alcohol abuse, public health, liver disease*

DOI: 10.12890/2024_V11Sup1

[Abstract:0831]

METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE (MASLD): UPDATE ON DEFINITION, CLASSIFICATION AND NON-INVASIVE RISK ASSESSMENT

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A global Delphi consensus recommended new definitions for non-alcoholic fatty liver disease. Hepatic steatosis is now termed Steatotic Liver Disease (SLD). Non-alcoholic fatty liver (NAFL) can be replaced with the term metabolic dysfunction associated steatotic liver (MASL); the term MASLD replaces NAFLD and MASH replaces NASH. Studies suggest a near complete overlap (99%) between the MASLD-defined population and the historical NAFLD-defined populations. All recommendations in the AASLD Practice Guidance on the clinical assessment and management of NAFLD can be applied to patients with MASLD and MASH. Results from natural history and biomarker validation studies among patients with NAFLD and NASH are applicable to patients with MASLD and MASH, respectively, until further guidance.

The new nomenclature includes the MetALD category to identify patients with hepatic steatosis, cardiometabolic risk factors, and increased alcohol consumption. Future studies of MetALD should be able to stratify patients according to their degree of metabolic dysfunction and amount of alcohol consumption. Other categories of SLD include alcohol-associated liver disease (ALD), specific aetiology SLD and cryptogenic SLD.

The prognosis in SLD is related to the presence of fibrosis and cirrhosis. Non-invasive tests for primary risk assessment such as FIB-4 have excellent negative predictive value in excluding advanced fibrosis, placing patients in a low-risk category. Patients with moderate or high risk of advanced disease based on the primary risk assessment require a secondary risk assessment with tools like elastography, magnetic resonance or liver biopsy.

Keywords: *metabolic dysfunction, associated steatotic liver disease, non-invasive assessment*

[Abstract:0851]

FEMALE GENDER AND SYMPTOM RELATED FACTORS IN IRRITABLE BOWEL SYNDROME

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Background and Aims: Irritable bowel syndrome (IBS) is a common condition characterized by abdominal discomfort associated with altered bowel movements. This survey study aims to determine gender distribution of the prevalence of IBS and factors associated with symptom augmentation.

Methods: To determine the distribution and correlation of disease with social life homogenously, survey data belonging to 250 volunteers from different socioeconomic backgrounds and age were collected. Symptoms were evaluated according to Roma IV criteria.

Results: Median age of participants was 35.7±13 years. IBS diagnosis was made in 36% of study population. The percentage of female gender among participants with IBS symptoms was 58%. Asking 90 patients referring to medical care for symptom relief, 79.8% of them associated symptom development with their stress condition. 38 patients revealed a history of major traumatic life event before symptom development; 19 of which experienced family member loss. No statistically significant correlation was found between the occurrence of IBS symptoms and other sociological factors. Psychological well-being and feeling of happiness rates were similar across symptom positive and negative participants. Educational background did not differ between groups with symptoms and without. Participants with IBS symptoms tended to eat out more.

Conclusions: IBS diagnosis was made in one third of survey population and incidence of disease was higher in females. No significant correlation was found between symptom development and educational background. The feeling of stress appears to be an important aggravating factor of IBS symptoms. Losing family members is the most reported major stress factor among the survey population. Nutritional habits can also have a negative impact on symptom development.

Keywords: *irritable bowel syndrome, stress, female gender*

 DOI: 10.12890/2024_V11Sup1

[Abstract:0858]

COLCHICINE MYOPATHY FACILITATED BY NEWLY DIAGNOSED CRYPTOGENIC LIVER CIRRHOSIS

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Cirrhosis is characterized by progressive fibrosis in the liver, leading to impairment of liver functions and formation of regenerative nodules. Drug-induced myopathy arises from the use of certain medications at normal or toxic doses. Symptoms of myopathy can range from mild myalgia to severe weakness, potentially causing acute kidney failure due to rhabdomyolysis. Colchicine can accumulate in tissues at toxic doses in conditions such as kidney and liver failure. Colchicine-induced myotoxicity is a rare side effect, with a frequency of less than 1%. This case report aims to present a diagnosis of colchicine-related myopathy associated with cryptogenic liver cirrhosis.

A 65-year-old male patient with a history of hypertension, diabetes mellitus, coronary artery disease, hyperlipidemia, and gout presented with fatigue and weakness for 10 days, decreased oral intake, and difficulty with walking. Neurological examination revealed reduced motor strength in the lower extremities. He was hospitalized for acute kidney failure and acute hepatitis. Transaminases were elevated approximately tenfold. Intracranial pathologies were ruled out. Viral hepatitis serology was negative. Ultrasonography showed cirrhosis findings and free fluid in the abdomen. Serum ascites albumin gradient was above 1.1, and total protein <2.5. Esophagoduodenoscopy revealed stage 2 varices. Electromyography showed primary muscle fiber involvement and sensorimotor axonal polyneuropathy.

The patient was diagnosed with colchicine myopathy facilitated by underlying cryptogenic liver cirrhosis. Cessation of colchicine and taking supportive measures improved myopathy symptoms and kidney functions.

Keywords: colchicine, myopathy, cryptogenic liver, cirrhosis

WBC	15.400	Haemoglobin	13 gr/dl
Platelet	103.000	Glucose	110 mmol/dl
Urea	294 mg/dl	Creatine	6.9 mg/dl
Uric acid	9.5 mg/dl	Basal creatine	0.9 mg/dl
Sodium	113 mmol /L	Potassium	5.8 mmol/L
Creatin Kinase	10.000 U/L	AST	917 U/L
GGT	115 U/L	ALT	205 U/L
ALP	205 U/L	Direct bilirubin	0.32bmg/dl
Total bilirubin	0.9 mg/dl	Lipase	434 U/L
Amylase	300 U/L	CRP	55 mg/dl
LDH	1198 U/L	Bicarbonate	15.9 mmol/L
Ph	7.34	Lactate	5.3 mmol/L
Parsiyel Co_2	38 mmHg		

Table 1.

[Abstract:0860]

CASE REPORT: FINGER CLUBBING AND CROHN'S DISEASE

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Hippocratic digital, or Digital clubbing, measured objectively by using the hyponychial angle, is a form of presentation of several diseases and a reason for referral to an internal medicine consultation for further study.

This clinical finding has been frequently reported in complicating inflammatory bowel disease, namely Crohn's disease.

We present a case of a 22 year old man with no medical history, that presents to the consultation with fatigue, mild dyspnoea with progressive worsening for approximately a year. He also reported gastrointestinal complaints with episodes of an increase in the number of daily stools of liquid characteristics with mucus, without blood.

Concurrently, he reported changes in his hands that he described as "drum fingers". He denied weight loss, anorexia and other respiratory symptoms. He denied urinary complaints and skin changes.

On objective examination, small painful adenomegaly in the cervical chain and left axillary were found. No changes in the lung and heart auscultation and abdomen without changes. Digital clubbing on hands and feet.

Of the study in addition to the analytical study, stool study, respiratory function tests, and chest CT which revealed no major changes, a colonoscopy was performed which described enteritis with erosive activity and entero CT which described parietal thickening of the distal ileum, to an extent measuring 6 cm, with submucosal oedema, likely involving Crohn's disease, with slight

 DOI: 10.12890/2024_V11Sup1

hypertrophy of adjacent vessels, suggesting disease with signs of activity. He was subsequently followed up at the gastroenterology consultation.

Keywords: *digital clubbing, Crohn's disease, inflammatory bowel disease*

[Abstract:0916]

NON CIRRHOTIC PORTAL HYPERTENSION: A NEW LOOK

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Summary: Although cirrhosis is the most common cause of portal hypertension, we cannot forget other aetiologies. Porto-sinusoidal vascular disease (PSVD) is one of the intrahepatic causes of portal hypertension whose diagnosis is based on the absence of cirrhosis on liver biopsy and the presence of specific or non-specific signs of portal hypertension.

Purpose: To present a case report about non cirrhotic portal hypertension

Findings: 62-year-old woman, asymptomatic, with type 2 diabetes, hypertension and overweight, without alcohol or smoking habits, was referred to an internal medicine consultation due to hepatosplenomegaly and suggestive signs of PHT on abdominal ultrasound, carried out for thrombocytopenia study. Study was complemented with viral serologies that were negative, exclusion of iron overload and autoimmune pathology; haematological disease and portal vein thrombosis also excluded. The fibroscan performed showed S1 steatosis, without fibrosis. A liver biopsy was performed, which revealed lesions of mild portal chronic hepatitis, without fibrosis, with vein herniation into the parenchyma in probable association with PSVD. Given that no other associated pathologies were found. Primary prevention of portal hypertension complications was initiated using beta-blockers. Vascular risk factors control was carried out.

Conclusions: We must bear in mind the existence of pathologies other than cirrhosis, responsible for the presence of portal hypertension. More than half of patients with PSVD have systemic conditions and chronic exposure to various medications and toxins, which may play direct role in the pathophysiology of liver changes. Its diagnosis and treatment have an impact on the prognosis of these patients.

Keywords: *porto-sinusoidal liver disease, non-cirrhotic portal hypertension, liver disease*

[Abstract:0923]

EMBRACE UNCERTAINTY IN DIAGNOSIS: A CASE REPORT

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Case Description: A 66-years-old man with a two-month history of multiple hepatic lesions under investigation, was admitted to the hospital with uncontrolled pain, fever, and worsening condition for two weeks. A month before, he had undergone liver biopsy of the lesions that revealed necrotic material. Past medical history was relevant for diverticulitis. Contrast-enhanced abdominal CT at admission, confirmed hepatic parenchyma occupied by huge multiple hypodense-necrotic lesions, one of them involving diaphragm and pleural space. Laboratory tests revealed an inflammatory state with evidence of *Streptococcus intermedius* bacteriemia.

Clinical Hypothesis: Necrotic-infected liver metastasis from an unidentified primary neoplasm vs. liver abscesses.

Diagnostic Pathways: The patient underwent ultrasonography assessment that revealed hypodense lesions with central colliquated areas. After multidisciplinary discussion, drainage tubes were placed in the largest lesions. Cultural samples revealed *Streptococcus intermedius*, while cytology was negative for cancer. Investigation into the potential source of bacteraemia, including orthopantomogram and echocardiogram, yielded negative results. Further investigations to assess potential underlying neoplastic aetiology, including colonoscopy and esophagogastroduodenoscopy, were negative. Intravenous antibiotic therapy was started. Subsequent ultrasound and CT monitoring showed progressive reduction of the drained abscesses as well as the resolution of other hypodense lesions and diaphragmatic involvement. At the four-month follow-up, the patient was completely asymptomatic.

Discussion and Learning Points: Liver abscesses' radiological presentation could be atypical and should be included in the differential diagnosis of hepatic lesions. Although diagnosis can be challenging, a systematic approach that pays attention to clinical presentation, imaging findings and histologic features could avoid missing a potentially treatable condition.

Keywords: *liver, abscesses, cancer*

 DOI: 10.12890/2024_V11Sup1

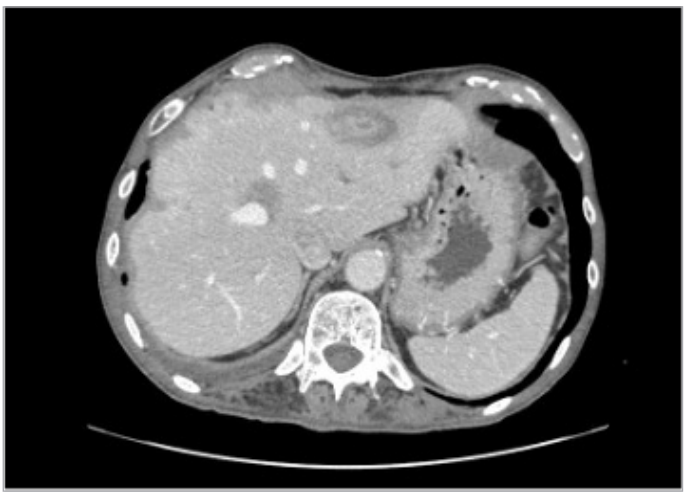

Figure 1. Multiple hypodense-necrotic lesions at the contrast-enhanced abdominal CT scan.

[Abstract:0943]

RARE CASE: CRONKHITE-CANADA SYNDROME

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Cronkhite-Canada syndrome (CCS) represents a group of clinical syndromes characterized by non-hereditary gastrointestinal polyps and the presence of the ectodermal triad syndrome (alopecia, cutaneous hyperpigmentation, onychodystrophy). CCS is a rare disease with a high morbidity rate, with an incidence of 1/1,000,000 and an unknown etiology[1]. 56-year-old female diagnosed with CCS presented to the clinic with chronic diarrhoea and weight loss. During the physical examination, oral ulcers, dystrophic changes in the nails, alopecia, hyperpigmentation on the lips, oral mucosa, and the fingers of the hands and feet were observed. Tumour markers and faecal occult blood were negative. Extensive biochemical analysis revealed no pathology except for iron deficiency. Colonoscopy identified a 3 mm polyp in the sigmoid colon and 5-6 polyps, measuring 2-3 mm in diameter with a light colour in the rectum. Pathology reported these as hyperplastic polyps, and a mild increase in inflammatory cells was observed in the lamina propria of the terminal ileum. The diagnosis of CCS was established based on the consistent radiological and clinical findings, as well as the absence of a known history of gastrointestinal polyposis in the family. Steroid therapy was planned for the patient. CCS should be considered with a history of gastrointestinal polyposis and symptoms such as alopecia, nail dystrophy, and hyperpigmentation. Steroids, mesalazine, and azathioprine are treatment options that can be considered for CCS.

References

1. Endoscopic and Pathological Characteristics of Cronkhite–Canada Syndrome: A Retrospective Analysis of 76 Cases Wei Wang,Yan Shao,Da-hua Zhao, Feng Xue, Xing-bin Ma, Qiong Li,and Cheng-xia Liu

Keywords: *Cronkhite-Canada syndrome, polyp, alopecia, onychodystrophy*

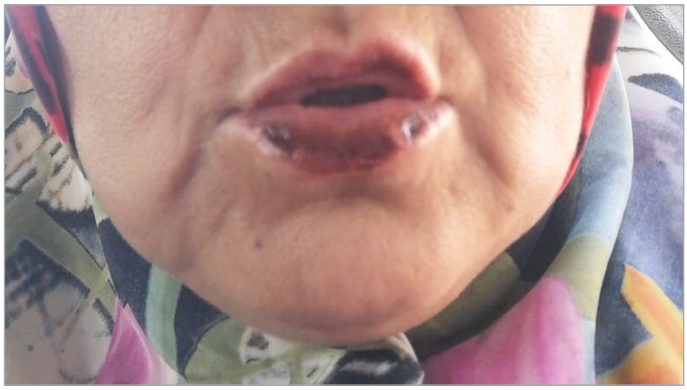

Figure 1. Hyperpigmentation was observed on the lips

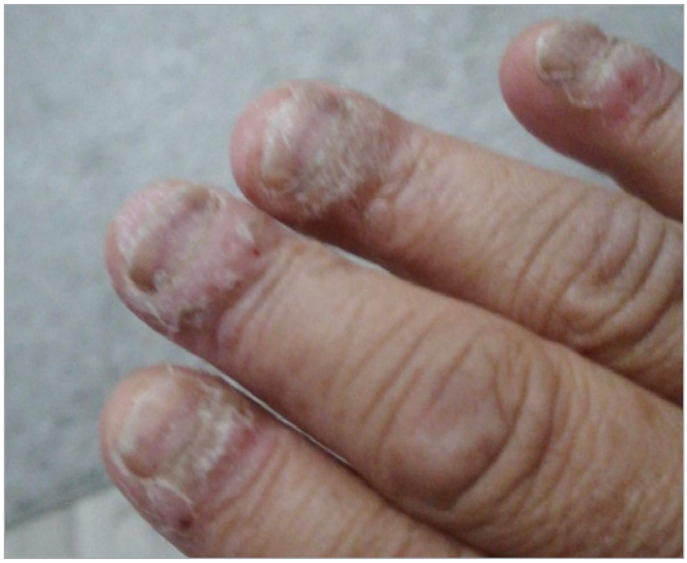

Figure 2. Onychodystrophy. Dystrophic changes in the nails.

[Abstract:0975]

A CASE OF SEVERE GASTROENTERITIS LEADING TO MULTIPLE ORGAN DYSFUNCTION AND OCCLUSIVE ILEUS

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Purpose: To present a case of neglected infectious gastroenteritis which was admitted with occlusive ileus and multiorgan failure.

Methods: A 71-year-old male with a medical history of type 2 diabetes mellitus, arterial hypertension and angina was transferred to the Emergency Department due to 3 days of fever, vomiting and diarrhoea (which had already abated). The patient was haemodynamically unstable, lethargic, hypoxemic, with a distended tender abdomen. X-rays showed a remarkable gastric distention. Laboratory tests exhibited elevated inflammation

 DOI: 10.12890/2024_V11Sup1

markers and affected renal function. Stool samples were sent for PCR, microscopy, cultures, *C. difficile* toxin and antigen detection, but no pathogen was identified. Treatment with empiric antibiotics and intravenous hydration was initiated, while a nasogastric tube drained approximately 1 litre of biliary fluid daily for the following week. The patient's sister exhibited similar, albeit milder, symptoms.

Findings: CT scans of the brain and abdomen revealed a subacute parietal ischemic infarct, remarkable gastric distention, wall thickening of the duodenum, jejunum and ileus and dilation of the small bowel lumen. An esophagogastroduodenoscopy revealed erythematous gastritis and severe ulcerative duodenitis. Duodenal fluid and biopsy cultures revealed *Klebsiella pneumoniae* and I. Subsequent abdominal CTs exhibited initial deterioration of the inflammatory occlusion, followed by gradual clinical and radiological improvement after 10 days.

Conclusions: Gastroenteritis has been linked with complications mainly attributed to electrolytic imbalance and hypoperfusion due to dehydration in adults with comorbidities such as diabetes, renal impairment etc. However, cases leading to occlusive ileus due to severe inflammation are rare. Early admission can prevent these complications.

Keywords: *gastroenteritis, occlusive ileus, multiorgan failure*

[Abstract:0978]

SIMILARITIES AND DIFFERENCES BETWEEN SERONEGATIVE AND SEROPOSITIVE PATIENTS WITH AUTOIMMUNE GASTRITIS

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Objectives: This study aims to compare and contrast the characteristics and clinical outcomes of anti-parietal cell antibody (APCA) positive (APCA+) and APCA- negative (APCA-) patients with autoimmune gastritis (AIG). The study will specifically compare the two groups in terms of demographics, symptoms, concurrent autoimmune diseases, serum gastrin levels, serum anti-TPO levels, haemoglobin levels, ferritin levels, vitamin B12 levels, and vitamin D levels. Additionally, the study will investigate the potential associations between APCA positivity and other autoimmune diseases, as well as gastric carcinoid tumours, in AIG patients.

Materials and Methods: The patient group includes 330 histopathologically diagnosed autoimmune gastritis patients. **Aim:** Age, gender, symptoms, demographic data, gastrin level, serum anti-TPO level, Hb levels, ferritin, B12, vitamin D levels and development of carcinoid tumours of APCA+ and APCA- patients diagnosed with OIG tumours were compared.

Results: APCA positivity was detected in 275 of the patients and the prevalence of APCA positivity was 83.3%. It was found that there was no statistically significant relationship between the presence of carcinoid tumour in the patient group and the status of being APCA- or APCA+, and the presence of carcinoid tumour did not differ statistically according to the status of being APCA- or APCA+.

Conclusions: There were no significant differences between APCA+ and APCA- AIG patients in terms of ferritin, vitamin B12, vitamin D deficiency, symptoms, haemoglobin levels, or the presence of concurrent autoimmune diseases. However, APCA positivity in AIG patients was associated with elevated gastrin and serum anti-TPO levels.

Keywords: *autoimmune gastritis, ferritin, vitamin D, comorbid autoimmune disease, carcinoid tumor*

[Abstract:0984]

A CASE RETURNING FROM TRANSPLANTATION: TOXIC HEPATITIS OR ACUTE VIRAL HEPATITIS?

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Introduction: Hepatitis A Virus (HAV) is a single-stranded, non-enveloped ribonucleic acid (RNA) virus that causes acute hepatitis(1). In this case we present a patient with anamnesis suggestive of toxic hepatitis, but etiologic investigations found that it is a HAV infection.

Case Presentation: 30-year-old male patient with no known comorbidities was admitted to hospital with abdominal pain lasting for 1 week and increase in liver function tests. He had a history of drinking chamomile tea every day and intermittent alcohol intake. The results of the patient who was evaluated for liver transplantation with a preliminary diagnosis of toxic hepatitis are shown in Table 1 and 2. During investigations, the HAV immunglobulin M (IgM) value was found to be positive. The patient was given symptomatic treatment and recommended home rest.

Discussion: HAV is an RNA virus that belongs to the hepatovirus genus of the family picornavidae. Acute hepatitis a occurs in three clinical forms; asymptomatic, subclinical hepatitis and symptomatic hepatitis(2). HAV IgM positivity is important. Transmission can be faecal, oral or parenteral. There is no specific treatment for acute viral hepatitis, most patients are left to rest at home. Patients with coagulopathy, encephalopathy, abdominal pain or vomiting require close hospital follow-up(3).

Conclusions: As seen in this case, the diagnosis can be difficult as multiple factors may coexist when investigating the aetiology of elevated liver function tests. When deciding on treatment, it is essential to carefully analyse the results and determine the most appropriate method at the right time.

 DOI: 10.12890/2024_V11Sup1

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Keywords: *acute hepatitis, HAV, HAV IgM, hepatitis A virus, transplantation*

TABLE-1:HOSPITAL ADMISSION (PATHOLOGICAL VALUES)	
GLUCOSE	80 MG/DL
UREA	21 MG/DL
CREATIN	0,72 MG/DL
TOTAL PROTEIN	68 G/L
ALBUMIN	37 G/L
ALANINE AMINOTRANSFERASE	812 U/L
ASPARTATE AMIOTRANSFERASE	2096 U/L
ALKALINE PHOSPHATASE	401 U/L
GAMMA GLUTAMYLTRANSFERASE	415 U/L
LACTATE DEHYDROGENASE	590 U/L
TOTAL BILIRUBIN	11,9 MG/DL
DIRECT BILIRUBIN	8,2 MG/DL
INR	1,1 INR
WBC/NEU/HB/PLT	5,77/2,70/14,6/231 x10*9/L-x10*9/L-G/DL-x10*9/L
HAV IGM	16,10 S/CO

Table 1. *Pathological laboratory data at hospital admission.*

TABLE-2: IMAGING PERFORMED
ABDOMINAL AND PORTAL VEIN DOPPLER: THE CRANIOCAUDAL DIMENSION OF THE LIVER WAS LARGER THAN NORMAL AT 175 MM AND THE PARENCHYMA ECHO INTENSITY WAS INCREASED SECONDARY TO GRADE 2 STEATOSIS. A 20X9 MM REACTIVE LYMPH NODE WAS OBSERVED IN THE LIVER HILUM. PARENCHYMA ECHO WAS HOMOGENEOUS. NO MASS LESION WAS DETECTED. THE GALLBLADDER WALL WAS OBSERVED TO BE 6 MM THICK WITH DIFFUSE EDEMATOUS EDEMA. THE GALLBLADDER IS CONTRACTED AND THE LUMEN COULD NOT BE EVALUATED. NO INTRAHEPATIC BILE DUCT DILATATION WAS DETECTED. HEPATIC ARTERY RI VALUE 0.66 HEPATIC VEINS ARE PATENT. PORTAL VEIN DIAMETER MEASURED 14.7 MM AT LIVER HELIX AND IS WIDER THAN NORMAL. COLOR FILLING IS FULL, FLOW DIRECTION IS HEPATOPEDAL. CURRENT SPECTRUM IS PHASIC IN CHARACTER. MAXIMAL FLOW VELOCITY WAS 20 CM/SEC. SPLEEN SIZE WAS 145 MM, WHICH IS LARGER THAN NORMAL. PARENCHYMAL ECHOGENICITY IS NORMAL. SPLENIC VEIN DIAMETER MEASURED 10 MM IN FRONT OF THE SMA. FLOW DIRECTION IS NORMAL. NO FREE FLUID OR COLLATERAL VENOUS STRUCTURES WERE DETECTED IN THE ABDOMEN.
HEPATOBILIARY ULTRASONOGRAPHY: HEPATOSTEATOSIS WAS OBSERVED IN THE LIVER PARENCHYMA. LIVER DIMENSIONS ARE INCREASED. THE GALLBLADDER APPEARS SEMICONTRACTED AND THE WALL IS DIFFUSELY THICK (6 MM IN THE THICKER PART) (CHRONIC CHOLESTITIS?). THE WIDTH OF THE INTRAHEPATIC BILE DUCTS IS WITHIN NORMAL LIMITS IN THE OBSERVABLE SECTIONS. CHOLEDOCHAL GAS SUPERPOSITION COULD NOT BE VISUALIZED.
ABDOMINAL COMPUTED TOMOGRAPHY: THE CRANIOCAUDAL DIMENSION OF THE LIVER IS ALSO INCREASED (205 MM). THERE IS MORE PRONOUNCED PERIPORTAL EDEMA IN THE RIGHT LOBE OF THE LIVER. EVALUATION FOR HEPATITIS IS RECOMMENDED. THE GALLBLADDER APPEARS CONTRACTED. BUT WALL THICKNESS IS DIFFUSELY INCREASED (ACUTE CHOLECYSTITIS?). INTRA- AND EXTRAHEPATIC BILE DUCTS ARE OF NORMAL WIDTH. DIFFUSE FLUID LEVELS ARE OBSERVED IN THE PERI-COLESTITIC MESENTERIC FATTY TISSUE EXTENDING INTO THE PARACOLIC AREA ON THE RIGHT. MINIMAL FREE FLUID IS ALSO OBSERVED IN THE PELVIS. REACTIVE-LOOKING LYMPH NODES WERE OBSERVED IN THE PERI-PORTAL AREA, THE LARGEST OF WHICH REACHED A SHORT DIAMETER OF 11 MM. THE SPLEEN INCREASED IN SIZE (132 MM). NO APPEARANCE IN FAVOR OF ACUTE APPENDICITIS WAS DETECTED IN THE RIGHT LOWER QUADRANT OF THE ABDOMEN. NO SIGNIFICANT FREE AIR WAS OBSERVED IN THE ABDOMEN. NO URGENT TOMOGRAPHIC PATHOLOGY WAS OBSERVED IN OTHER ORGANS IN THE ABDOMEN. NO SIGNIFICANT DILATATION OR STONE DENSITY WAS DETECTED IN THE COLLECTING SYSTEM OF BOTH KIDNEYS. BLADDER VOLUME WAS NORMAL WITH NO SIGNIFICANT WALL OR INTRA-LUMINAL PATHOLOGY.

Table 2. *Results of imaging performed at hospital admission.*

[Abstract:0995]

LIVER LESIONS, ABDOMINAL PAIN AND CONTRACEPTIVES IN YOUNG WOMEN, A RELATIONSHIP TO TAKE INTO ACCOUNT?

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A 27-year-old female patient who is lactose intolerant, being treated with oral hormonal contraceptives, comes to the clinic due to frequent nausea and vomiting caused by food in the last month. It associates dyspepsia, meteorism, and discomfort in the epigastrium. Weight loss of about 5 kg and asthenia that the patient puts in the context of lower caloric intake. No other symptoms in the anamnesis due to devices.

Examination and complementary tests: Soft and depressible abdomen with diffuse discomfort on palpation of the epigastrium. Laboratory tests showed isolated elevation of GGT 162 U/L and hyperbilirubinemia 1.10 mg/dL at the expense of indirect bilirubin. An abdominal ultrasound was performed with the result a solid liver mass at the expense of better identification using regulated CT. A CT scan describes a solid liver mass measuring 10.5 x 8.3 x 7.6 centimetres, apparently dependent on liver segment 6, showing enhancement in the arterial phase with a sensation of washing in the late portal phase, which appears to be the first option for fibrolamellar hepatocellular carcinoma. To complete the study, NMR was finally performed, which indicated that it could be liver adenocarcinoma as the first option.

Differential diagnosis should also include simple cyst, hepatic haemangioma, focal nodular hyperplasia, adenoma, adenocarcinoma, hepatocarcinoma.

Laparoscopy was performed, with final pathological anatomy with a diagnosis of adenoma and the patient was referred to the hepatology clinics for follow-up.

Keywords: *liver injury, abdominal pain, contraceptives, lactose*

[Abstract:1004]

DO NOT OVERLOOK ELEVATED LIVER FUNCTION TESTS: WILSON'S DISEASE

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Introduction: Wilson's disease (WD) is an autosomal recessive (AR) disorder of copper metabolism. The clinical phenotypes include hepatic, haemolytic, neurological and psychiatric disorders(1). Here is the case of a patient who was investigated

 DOI: 10.12890/2024_V11Sup1

with jaundice and abnormal liver function tests and progressed to liver transplantation with the diagnosis of WD.

Case Presentation: A 40-year-old male patient who was diagnosed with multiple sclerosis started to complain of jaundice and pruritus. With the values shown in Table 1 and 2, a preliminary diagnosis of WD was considered. Before the liver biopsy was not completed, the patient, who was thought to have stage 2 hepatic encephalopathy during follow-up, received an urgent call for liver transplantation. As it is learned, the operation was successful, and his current values are shown in Table 3.

Discussion: WD is an AR trait disorder of human copper metabolism. The *ATP7B* gene mutation causes that copper is not excreted in bile and copper accumulates in other organs, especially the liver(2). Clinical manifestations include neurological symptoms, acute liver failure, chronic hepatitis or liver cirrhosis(3). Although copper-binding drugs are used in treatment such as d-penicillamine, the definitive treatment is liver transplantation(4).

Conclusions: Even though WD is a rare disease, it is an etiologic factor that should be investigated in unexplained abnormal liver function tests and elevated bilirubin levels. Liver transplantation is life-saving because of its rapid progression and mortal ending.

Sources:
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(2)https://guncel.tgv.org.tr/journal/33/pdf/349.pdf
(3)http://acikerisim.ibu.edu.tr/xmlui/bitstream/handle/20.500.12491/1310/asli-tug.pdf?sequence=1&isAllowed=y
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Keywords: *autosomal recessive, copper, hepatic encephalopathy, transplantation, Wilson's disease*

TABLE-1 : HOSPITAL ADMISSION (PATHOLOGICAL VALUES)	
GLUCOSE	84 MG/DL
UREA	24 MG/DL
CREATIN	0,70 MG/DL
TOTAL PROTEIN	56 G/L
ALBUMIN	27 G/L
ALANINE AMINOTRANSFERASE	517 U/L
ASPARTATE AMIOTRANSFERASE	495 U/L
ALKALINE PHOSPHATASE	114 U/L
GAMMA GLUTAMYLTRANSFERASE	59 U/L
LACTATE DEHYDROGENASE	383 U/L
TOTAL BILIRUBIN	29,1 MG/DL
DIRECT BILIRUBIN	19,3 MG/DL
INR	2,1 INR
WBC/NEU/HB/PLT	12,12/8,95/11,8/277 x10*9/L-x10*9/L-G/DL-x10*9/L
SERULOPLAZMINE	0,168 G/L
CA 125	38,2 U/ML
CA 19.9	245,3 U/ML
AFP	146 µg/ML
24 HOUR URINE COPPER	47,47
SERUM COPPER	66,31
EYE EXAMINATION	Weak Visible Kayser-Fleischer-Korneal Ring

Table 1. *Pathologic data at hospital admission.*

TABLE-2: IMAGING PERFORMED
PORTAL DOPPLER: THE LIVER COULD BE EVALUATED THROUGH THE INTERCOSTAL SPACE. THE LEFT LOBE WAS LOCATED HIGH AND COULD NOT BE EVALUATED. THE EVALUABLE LIVER RIGHT LOBE WAS IN ITS NORMAL LOBE. PARENCHYMAL ECHO INTENSITY WAS NORMAL. PARENCHYMA WAS HOMOGENEOUS AND NO CYSTIC OR SOLID MASS LESION WAS OBSERVED. RIGHT PORTAL VEIN BRANCH WAS OPEN. LEFT PORTAL VEIN BRANCH AND MAIN PORTAL VEIN COULD NOT BE EVALUATED DUE TO GAS DISTENSION. IT IS RECOMMENDED TO EVALUATE THE PATIENT WITH CROSS-SECTIONAL IMAGING METHODS IF NECESSARY. RIGHT HEPATIC ARTERY IS PATENT. LEFT HEPATIC ARTERY COULD NOT BE EVALUATED. RIGHT-MIDDLE HEPATIC VEIN AND VCI ARE PATENT. THE LEFT HEPATIC VEIN COULD NOT BE EVALUATED. THE INTRAHEPATIC BILE DUCTS APPEAR NORMAL. THE GALLBLADDER APPEARS SEMICONTRACTED. THE PANCREAS HAS NORMAL LOCALIZATION AND DIMENSIONS. THE PARENCHYMA IS HOMOGENEOUS. THE PANCREATIC DUCT IS OF NORMAL WIDTH.
ABDOMINAL ULTRASONOGRAPHY: THE LIVER WAS EVALUATED THROUGH THE INTERCOSTAL SPACE. AS FAR AS CAN BE OBSERVED; THE LEFT LOBE OF THE LIVER COULD NOT BE EVALUATED DUE TO GAS. THE BASAL LOBE OF THE RIGHT LUNG HAS A CONSOLIDATED-ATELECTATIC APPEARANCE. GALLBLADDER WALL APPEARS SLIGHTLY EDEMATOUS. INTRAHEPATIC BILE DUCTS AND CHOLEDOCHAL DUCT WIDTHS ARE WITHIN NORMAL LIMITS. PANCREAS AND MIDLINE FORMATIONS COULD NOT BE EVALUATED DUE TO DENSE GAS SUPERPOSITION. SPLEEN CONTOUR, SIZE AND PARENCHYMAL ECHOGENICITY ARE NORMAL. BOTH KIDNEY LOCALIZATION AND DIMENSIONS ARE NORMAL. NO DILATATION WAS DETECTED IN THE RIGHT RENAL COLLECTING SYSTEM. THE LEFT RENAL COLLECTING SYSTEM IS FULL. ECHOGENICITIES IN THE RIGHT KIDNEY THAT MAY BE COMPATIBLE WITH CALCULI WERE OBSERVED. BLADDER WAS EMPTY AND A CATHETER BALLOON WAS OBSERVED IN THE LUMEN. FLUID REACHING 5 CM IN THE DEEPEST PART OF THE PELVIS WAS OBSERVED. PERIHEPATIC SHARPENING FLUID WAS OBSERVED.
DYNAMIC UPPER ABDOMINAL MAGNETIC RESONANCE IMAGING: LIVER DIMENSIONS ARE REDUCED, PARENCHYMA INTENSITY IS HETEROGENEOUS AND CONTOURS ARE LOBULATED. NO PATHOLOGY OF THE GALLBLADDER AND ITS DUCTS WAS DETECTED. SPLEEN SIZE WAS NORMAL, PARENCHYMA WAS OF HOMOGENEOUS INTENSITY. PANCREATIC PARENCHYMA WAS HOMOGENEOUS AND NO OBVIOUS MASS LESION WAS SEEN. BOTH KIDNEYS WERE NORMAL IN SIZE AND LOCATION. BOTH SURRENAL GLANDS WERE NORMAL IN SIZE AND INTENSITY. A DYNAMIC CT SCAN MAY PROVIDE ADDITIONAL INFORMATION.

Table 2. *Imaging performed at hospital admission.*

TABLE-3 : AFTER LIVER TRANSPLANTATION	
GLUCOSE	111 MG/DL
UREA	47 MG/DL
CREATIN	0,69 MG/DL
TOTAL PROTEIN	64 G/L
ALBUMIN	45 G/L
ALANINE AMINOTRANSFERASE	51 U/L
ASPARTATE AMIOTRANSFERASE	100 U/L
ALKALINE PHOSPHATASE	275 U/L
GAMMA GLUTAMYLTRANSFERASE	190 U/L
LACTATE DEHYDROGENASE	113 U/L
TOTAL BILIRUBIN	2,6 MG/DL
DIRECT BILIRUBIN	1,8 MG/DL
INR	1,0 INR
WBC/NEU/HB/PLT	6,74-4,30-9,3-217 x10*9/L-x10*9/L-G/DL-x10*9/L

Table 3. *Current values after liver transplantation.*

[Abstract:1008]

LIVER TOXICITY ASSOCIATED WITH ANDROGEN SUPPLEMENTS USED IN BODYBUILDING

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Introduction: Toxic hepatitis is a disease that frequently occurs due to the use of drugs and herbal substances and causes a picture ranging from mild biochemical abnormality to acute liver failure(1). Here, a case of toxic hepatitis due to the use of androgen and testosterone supplements for bodybuilding is presented.

Case Presentation: A 37-year-old male patient, who had no known disease and had been doing sports for 6 years, was admitted to the hospital with the complaints of yellow discoloration of the skin and nausea which developed with the use of testosterone

 DOI: 10.12890/2024_V11Sup1

enanthate, boldenone undecylenate and oxandrolone in the last 1 month. He was admitted to the hospital interned with a preliminary diagnosis of toxic hepatitis with the results shown in the Table 1. Liver biopsy was interpreted as biliary damage (Table 2). The patient's bilirubin levels reduced with ursodeoxycholic acid and desloratadine and were monitored routinely.

Discussion: Toxic hepatitis is a liver disease that occurs in a dose-dependent or idiosyncratic manner triggered by the ingestion of drugs or other substances and is characterized as acute or chronic liver damage(2).The gold standard for diagnosis is liver biopsy. Although no pharmacologic treatment has been properly tested, corticosteroids, acetylcysteine and ursodeoxycholic acid may be beneficial(3).

Conclusions: As seen in this case, in patients presenting with cholestasis and liver enzyme abnormalities, the anamnesis needs to be deepened and the diagnostic process may be prolonged. Patients should be followed closely and liver transplantation should be considered as a possible option.

Sources:
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(2)https://jag.journalagent.com/vtd/pdfs/VTD_28_1_15_18.pdf
(3)https://file.atuder.org/_atuder.org/fileupload/twk4mbakfodp.pdf

Keywords: *androgen, supplement, testosterone, toxic hepatitis, supplement*

TABLE-1: ACCORDING TO DATES AND PLASMAPHERESIS DAYS* TB(MG/DL), DB(MG/DL), AST(U/L), ALT(U/L), ALP (U/L), GGT(U/L) LEVEL

DATE	TB	DB	AST	ALT	ALP	GGT
9/11/2023 12:56	4,56	3,21	85	81	201	101
9/4/2023 13:12	6,73	4,53	72	63	224	90
8/28/2023 11:13	12,2	10,24	77	64	290	83
8/21/2023 16:01	17,1	11,16	79	54	268	100
8/18/2023 1:49	15,5	11,9	62	54	214	83
8/16/2023 2:02	16,06	13,02	61	54	208	98
8/13/2023 0:09	12,87	10,3	47	44	131	60
8/11/2023 0:07	16,85	12,66	67	59	166	68
8/10/2023 0:36	15,13	11,98	50	49	135	55
8/9/2023 1:04	18,64	14,71	57	51	175	65
8/7/2023 21:03	15,73	10,8	42	43	162	51
7/8/2023 02:11*	24,27	16,98	59	63	262	73
8/4/2023 1:45	21,2	14,02	61	69	237	76
8/2/2023 1:55	1821	13,69	66	67	185	59
7/31/2023 0:02	14,89	11,2	60	60	133	50
7/29/2023 19:52	9,72	7,51	38	44	116	40
7/29/2023 1:17*	17,58	12,27	54	55	162	49
7/28/2023 1:41	16,26	11,81	50	46	129	36
7/27/2023 1:06*	24,12	16,23	51	61	166	41
7/26/2023 1:39	21,49	15,3	42	53	139	43
7/24/2023 11:51*	32,85	23,12	66	82	239	77
7/24/2023 0:47	32,74	22,29	74	89	213	71
7/23/2023 1:40	33,11	22,45	83	81	209	74
7/22/2023 3:20	34,04	22,36	76	84	211	73
7/21/2023 3:55	33,63	21,62	64	82	207	69
7/20/2023 4:42	33,13	21,89	67	85	208	67
7/19/2023 4:35	31,97	21,01	64	82	199	63
7/18/2023 4:43	31,68	21,83	68	78	186	63
7/17/2023 10:57	31,16	19,32	71	79	196	65
7/16/2023 1:44	28,88	19,93	54	75	192	71
7/15/2023 9:48	27,54	19,93	71	75	211	70
7/14/2023 22:51	31,15	20,76	63	78	223	80

Table 1. *Acoording to dates and plasmapheresis days laboratory level.*

TABLE-2

LIVER BIOPSY

IN THE SECTIONS EXAMINED, THE BASIC STRUCTURE IS PRESERVED AND THERE ARE 47 PORTAL AREAS. THE PORTAL AREAS SHOW MILD TO MODERATE MICROINFLAMMATION RICH IN EOSINOPHILS, LESS FREQUENTLY WITH MONONUCLEAR INFLAMMATORY CELLS. THE PORTOPARENCHYMAL BORDER IS INTACT IN LARGE AREAS AND DISRUPTED IN A FEW AREAS WITH MILD INTERFACIAL HEPATITIS. XANTHOMATOUS CHANGES IN THE HEPATOCYTES ARE NOTED IN SOME AREAS OF THE PARENCHYMA. NECROINFLAMMATORY FOCI/APOPTOSIS INCLUDING 1-2 EOSINOPHILS WERE ALSO SEEN AT 10 MAGNIFICATION. CONFLUENT NECROSIS WAS SEEN IN SEVERAL AREAS IN ZONE 3. DIFFUSE HEPATOCANALICULAR HEPATOSTASIS WAS OBSERVED IN THE PARENCHYMA.

MASSON TRICHROME STAIN SHOWED MINIMAL FIBROUS EXPANSION IN A FEW PORTAL AREAS AND PERIOSYNOZOIDAL FIBROSIS IN ZONE 3 IN A FEW FOCAL AREAS.

IMMUNOHISTOCHEMICALLY, DIFFUSE DUCTULAR METAPLASIA WITH CK7 AND DUCTULAR PROLIFERATION WERE OBSERVED. 30-35% LOSS OF BILE DUCTS WAS ALSO OBSERVED.

SEVERE BILIARY DAMAGE (HEPATOCANALICULAR, CHRONIC CHOLESTASIS, BILE DUCT LOSS), LIVER TISSUE SHOWING MILD HEPATOCELLULAR DAMAGE; LIVER, TRU-CUT BIOPSY.

NO NEOPLASMS WERE FOUND.

MORPHOLOGIC FINDINGS ARE PRIMARILY SUGGESTIVE OF TOXIC HEPATITIS. CLINICOPATHOLOGIC CORRELATION IS RECOMMENDED.

Table 2. *Liver biopsy.*

[Abstract:1019]

METHANE GAS IN BREATH TEST IS ASSOCIATED WITH NON-ALCOHOLIC FATTY LIVER DISEASE

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Although the association between Body Mass Index level and metabolic diseases as well as the association between the breath test results and BMI level have been studied, their relationship between breath hydrogen/methane level and metabolic diseases need to be further clarified. This study aimed to investigate how the composition of exhaled breath gases relates to metabolic disorders and their key risk factors. An elevated BMI level significantly increases the risk of developing metabolic disease; it was included in this study to find their association.

Subjects were grouped according to four different criteria of the LBT hydrogen and methane level: 1) Normal (N) (Hydrogen <20 ppm and Methane <3 ppm); 2) Hydrogen only (H+) (hydrogen ≥20 ppm and methane <3 ppm); 3) methane positive (m+) (hydrogen <20 ppm and methane ≥3 ppm); and 4) methane and hydrogen positive (m+/h+) (hydrogen ≥20 ppm and methane ≥3 ppm). Of 441 subjects, 325 (72.1%) had positive results for methane only (M+). BMI and prevalence of NAFLD were higher in subjects with M+ than in subjects with hydrogen and methane positivity (H+/M+). According to multivariate analysis, the odds ratio (OR) of M+ was 2.002 (with 95% CI: 1.244-3.221, P = 0.004) for NAFLD. Our results demonstrate that breath methane positivity is related to NAFLD and suggest that increased methane gas in breath tests has the potential to be an easily measurable biomarker for the diagnosis of NAFLD.

Keywords: *lactulose breath test, hydrogen and methane, metabolic disease, non-alcoholic fatty liver disease*

 DOI: 10.12890/2024_V11Sup1

[Abstract:1072]

DEMOGRAPHIC AND CLINICAL CHARACTERISTICS AND IMPACT OF AMA POSITIVITY IN PRIMARY BILIARY CHOLANGITIS

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Background: The aim of our study is to reveal the clinical and demographic characteristics of patients followed in a tertiary centre and to investigate the effect of AMA positivity on clinical outcomes.

Methods: 60 patients diagnosed with PBC and followed by Istanbul Medical Faculty were included in this study. The patients' demographic data, comorbid diseases, admission symptoms, APRI and Globe scores, presence of cirrhosis, and Fibroscan liver fibrosis scores were examined. It was investigated whether AMA positivity had an effect on disease progression.

Results: The average age of 55 female and 5 male PBC patients was 56.48±12.1 years. Their average BMI was 27.51±4.49. The average age of the patients at diagnosis was 45.4±10.1 years and their symptoms at the time of admission were asymptomatic (n=35), itching (n=12), fatigue (n=8), jaundice (n=2), dry mouth (n=1), right upper quadrant pain (n=1) and cirrhotic imaging (n=1).43.3% (n=26) of 60 PBC patients were accompanied by additional autoimmune disease. The most frequently detected autoimmune disease was Hashimoto's with 34.6%. Other autoimmune diseases in order of frequency: Sjogren's (19.2%), celiac disease (11.5%), scleroderma (11.5%), RA (7.7%), ITP (3.8%), and psoriatic arthritis (3.8%). The average APRI score of the patients was 0.43±0.57. In fibrosis staging with fibroscan, there were n=36 patients (66.7%) with fibrosis between F0-F2 and n=18 (33.3%) with fibrosis between F3-F4. The comparative results of the patients according to AMA positivity are summarized in Table 1.

Conclusions: It shouldn't be forgotten that presenting symptoms may vary in PBC and the importance of investigating additional autoimmune diseases. It has been observed that AMA positivity has no effect on disease progression.

Keywords: primary biliary cholangitis, antibody positivity, autoimmune diseases

	AMA negative PBC (n=17)	AMA positive PBC (n=42)	p value
Age	52.88±14.77	58.05±10.83	0.142
Gender	17 F (%100) 0 M (0.00)	37 F (%88.1) 5 M (%11.9)	0.308
APRI score	0.36±0.5	0.44±0.6	0.880
Globe score	-0.82±0.92	-0.45±0.81	0.096
Liver fibrosis (kPa)	10.53±12.18	13.38±10.77	0.170
CAP score	225.67±62.84	253.05±56.99	0.161
Presence of cirrhosis	15 (%88.2)	35 (%83.3)	1.000

Table 1. *The comparative results of the patients according to AMA positivity.*

[Abstract:1073]

MANAGEMENT OF A PATIENT WITH LYNCH AND SHORT BOWEL SYNDROME DUE TO POST RADIATION ENTERITIS

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Case Description: A 56-year-old female patient with medical history of Lynch syndrome, endometrial cancer (total hysterectomy with bilateral salpingo-oophorectomy and postoperative radiation therapy), colon cancer (right colectomy and ileotransverse anastomosis) and heterochronic sigmoid cancer (total colectomy, end-to-end ileorectal anastomosis and loop ileostomy), was referred for gastroenterology consultation by the surgical clinic where she was hospitalized due to intestinal failure.

Clinical Hypothesis: Short bowel syndrome due to radiation therapy.

Diagnostic Pathways: Clinical evaluation showed malabsorption, hypovolemia-hyponatremia, weight loss (BMI 17kg/m^2), bilateral oedema of the lower limbs, high-flow stoma (>4000 L/day), hypomagnesemia and dehydration. The cause was considered to be post radiation enteritis, as the length of the small intestine that had been surgically removed (60 cm) does not justify the diagnosis of surgery-associated short bowel syndrome.

The patient was treated with antisecretory agents, intestinal peristalsis inhibitors, hypertonic oral solutions (St Marks glucose saline solution) and electrolyte replacement. Initially she received oral nutrition in collaboration with a specialized nutrition department, without much improvement and therefore it was decided to start parenteral nutrition at home, with gradual improvement.

Discussion and Learning Points: The management of patients with short bowel syndrome is a challenge for the clinician. Malabsorption is associated with increased rates of morbidity and mortality, while reducing quality of life. Surgical removal of the small intestine is the main cause but other conditions should also be considered, such as post radiation enteritis, mesenteric

 DOI: 10.12890/2024_V11Sup1

ischemia or Crohn's disease and should be involved in differential diagnosis of dehydration for risk patients.

Keywords: *enteritis, radiation, malabsorption, Lynch, stoma*

[Abstract:1091]

INTRACARDIAC BUBBLES ASSOCIATED WITH CIRRHOSIS

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Introduction: Intracardiac microbubbles can arise through active infusion, spontaneously or pathologically. There are several possible causes for spontaneous bullae: congestive heart failure, mitral and tricuspid valve disease, pulmonary hypertension, and pulmonary thromboembolism. Atrioventricular septal defects and liver disease can trigger pathological intracardiac bubbles.
Case Presentation: Woman, 52 years old, with a history of chronic liver disease of alcoholic aetiology, Child-Pugh C. Went to the Emergency Department due to asthenia, psychomotor lentification, vomiting, anorexia and weight loss. On physical examination, the patient was hemodynamically stable, apyretic, with oriented but slow speech, pulmonary congestion and systolic murmur. She was hospitalized for hypervolemic hyposmolar hyponatremia and decompensated chronic liver disease with anasarca and hepatic encephalopathy. To clarify the new murmur, an echocardiogram was performed which demonstrated bubbles in the right chambers and inferior vena cava, pulmonary hypertension, but without significant morphological changes in the valve structures. No placement of central catheters. The patient maintained a favourable clinical evolution without symptoms associated with the echocardiogram findings and was discharged.
Conclusions: Intracardiac bubbles are a rare finding but may be associated with liver disease. This case demonstrates yet another example of this still unclear association.

Keywords: *hepatic disease, Intracardiac bubbles, ascites*

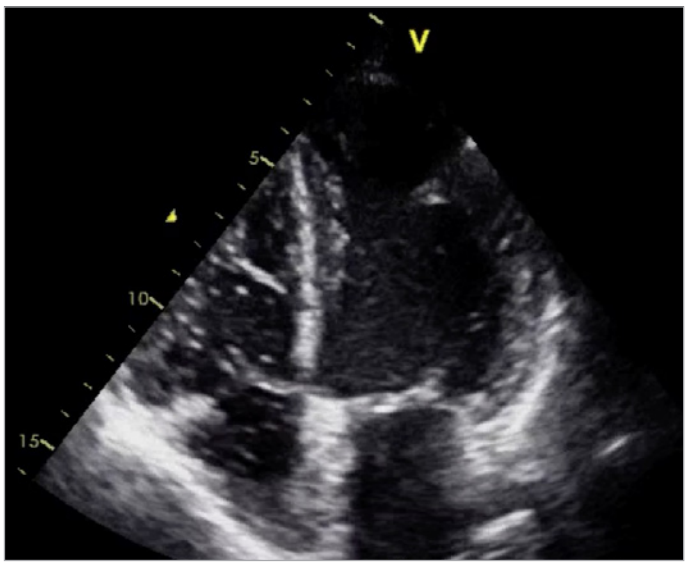

Figure 1. *Intracardiac bubbles.*
Bubbles present in the right auricle and ventricle

[Abstract:1093]

DIAGNOSIS OF MICROSCOPIC COLITIS IN A FEMALE PATIENT AFTER METHOTREXATE WITHDRAWAL

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Case Description: An ex-smoker, 57-year-old female patient with medical history of arterial hypertension, dyslipidaemia, Hashimoto's thyroiditis, presented to our outpatient department to schedule a screening colonoscopy. During the interview a history for rheumatoid arthritis was revealed. The patient had received methotrexate and was now in remission without therapy for two years. Since then she has episodes of diarrheal stools, approximately 5 watery stools per day (watery stools were more than 25% of total), without other alarm symptoms, fulfilling the Rome IV criteria for functional diarrhoea.
Clinical Hypothesis: Differential diagnosis of chronic diarrhoea.
Diagnostic Pathways: Blood and stool laboratory tests were sent, with no pathology emerged, except from the slightly elevated calprotectin value of 194 μg/g. An ileocolonoscopic was performed with no macroscopic findings, while random biopsies were taken. Histology was compatible with collagenous microscopic colitis and the patient was treated with budesonide per os, with immediate resolution of symptoms.
Discussion and Learning Points: Microscopic colitis can present clinically as chronic diarrhoea syndrome. It is characterized histologically as collagenous, leukocytic or mixed type. Rheumatoid arthritis is a risk factor for the development of microscopic colitis, while methotrexate has been used as a secondary treatment option. Up to 14% of patients with chronic diarrhoea syndrome

 DOI: 10.12890/2024_V11Sup1

and a normal colonoscopy may have underlying microscopic colitis. As the symptoms overlap with those of irritable bowel syndrome or functional diarrhoea, the diagnosis of microscopic colitis is often overlooked. It is important for the clinician to induce microscopic colitis in the differential diagnosis and search for it with histology.

Keywords: *microscopic, colitis, methotrexate*

[Abstract:1107]

SEGMENTAL COLITIS ASSOCIATED WITH DIVERTICULOSIS (SCAD) MIMICKING ULCERATIVE COLITIS

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Case Description: A 59-year-old female patient with history of ulcerative colitis under mesalazine, hypertension, diabetes mellitus and hyperlipidaemia presented to our Inflammatory Bowel Disease outpatient department due to bloody stools and abdominal pain.

Clinical Hypothesis: Differential diagnosis of colitis.

Diagnostic Pathways: Blood and faecal examination were performed. Inflammation markers were elevated (CRP 11.9 mg/L, with upper normal limit <5, faecal calprotectin 200.5 μgr), stool cultures were negative, with absence of pathogens, such as *Clostridium difficile*. A lower gastrointestinal endoscopy (sigmoidoscopy) was performed that revealed stenosis in the sigmoid-descending colon area, with no other mucosal findings and random biopsies were taken. A colonoscopy was performed that showed, except from the known stenosis, diverticulosis, without signs of inflammation and segmental colitis. No endoscopic findings suggesting ulcerative colitis existed, so segmental colitis associated with diverticulosis (SCAD) was suspected. Histology confirmed segmental colitis associated with diverticulosis so the patient was referred to surgical treatment.

Discussion and Learning Points: Connection between diverticulitis and ulcerative colitis has not clearly been described. Despite the fact that there are few case reports with ulcerative colitis patients who developed diverticulitis, there are no record of segmental colitis associated with diverticulosis (SCAD) mimicking ulcerative colitis. Atypical clinical signs should concern clinicians and even change an established diagnosis.

Keywords: *diverticulitis, ulcerative, colitis, SCAD*

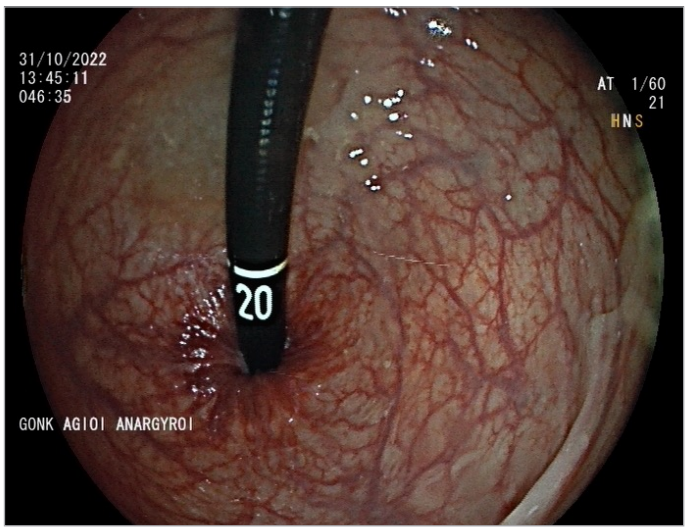

Figure 1. *Endoscopy.*
Normal endoscopical findings in rectum.

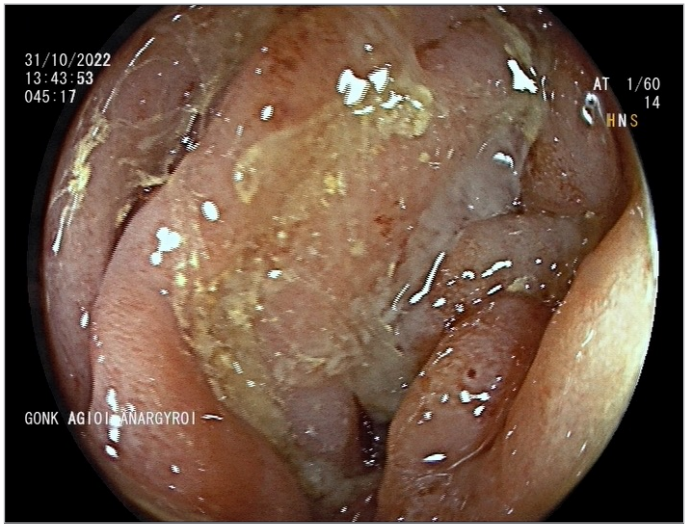

Figure 2. *Endoscopy.*
Stenosis with redness and oedema of colon mucosa.

[Abstract:1132]

THESE HANDS ARE NOT MINE

Elena Hellín Valiente, Alicia Pérez Bernabeu, María Dolores Hernández Rabadán, Juan Vicente Blasco Birlanga, Alfonso Del Pozo Pérez, José María Cepeda Rodrigo

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A 34-year-old male, originally from Peru, residing in Spain for 6 years, presents with a three-year history of acropachy in both hands. The patient sought medical attention due to acropachy, and after ruling out pulmonary causes, he was referred to internal medicine. Physical examination revealed acropachy in both hands, tender hepatomegaly and painless splenomegaly. Previous pneumology consultations included normal spirometry and fibroscopy, chest X-ray showing bilateral hilar thickening, and a chest CT revealing oesophageal varices and splenomegaly. We ordered a comprehensive analysis, including general and hepatic

 DOI: 10.12890/2024_V11Sup1

autoimmunity studies, inflammatory markers, iron profile, thyroid hormones, vitamin B12, folic acid, copper study, vitamin A, alpha-fetoprotein, proteinogram and serologies, all of which were normal. Abdominal ultrasound and CT indicated portal cavernomatosis with portal vein thrombosis and collateral circulation in a non-cirrhotic liver. A gastroscopy confirmed thick oesophageal varices requiring band placement. The patient, diagnosed with non-cirrhotic portal vein thrombosis, underwent a hypercoagulability study, revealing a positive *JAK2 V617F* mutation. A bone marrow biopsy confirmed chronic myeloproliferative syndrome suggestive of prefibrotic myelofibrosis, and anticoagulation and treatment with ruxolitinib was initiated.

Regarding acropachy, a differential diagnosis was performed, including arterial blood gas analysis and contrast echocardiography, that revealed extracardiac shunting, likely pulmonary, suggesting hepatopulmonary syndrome. Despite minimal clinical impact, acropachy was identified as the sole clinical sign.

It is crucial to investigate hypercoagulability, including *JAK2V617F* mutation, in young patients with unusual locations thrombosis.

Despite underdiagnosis, hepatopulmonary syndrome can occur in patients with mild liver disease or portal hypertension, manifesting respiratory symptoms or signs of hypoxemia.

Keywords: *acropachy, myelofibrosis, hepatopulmonary syndrome*

[Abstract:1142]

ACUTE CHOLANGITIS AS A PRESENTATION OF DIFFUSE LARGE CELL LYMPHOMA

María Del Rocío Fernández Dïaz, Michel Martos Ruiz, María Cristina Bailón Gaona, Pedro Manuel García Ceberino

Hospital Universitario Clínico San Cecilio, Internal Medicine Department, Granada, Spain

Case Presentation: A 63-year-old male, with no notable personal history, presented to the Emergency Department with fever associated with epigastric abdominal pain radiating to both hypochondria for the past 48 hours. Laboratory findings revealed significant dissociated cholestasis (gamma-glutamyl transferase: 818 U/L, alkaline phosphatase: 165 U/L with bilirubin within the normal range), along with a slight elevation in pancreatic enzymes and acute-phase reactants (C-reactive protein of 147 mg/L). Based on these findings, the clinical suspicion of acute cholangitis was established, and treatment with ceftriaxone was initiated, leading to good progress.

Hypothesis: Acute cholangitis.

Diagnostic Pathways: To investigate the bile duct, a magnetic resonance cholangiography was performed, revealing biliary duct dilation secondary to multiple adenopathies in the cecum and retroperitoneal region, suggesting a lymphoproliferative syndrome as the primary possibility. Additionally, a suspicious metastatic lesion in the vertebral body of D11 was identified (Figure 1). A PET-CT study showed multiple disseminated hypermetabolic foci, supporting the diagnosis suspicion of a lymphoproliferative syndrome (Figure 2). Finally, biopsy of an adenopathy confirmed the diagnosis of diffuse large B-cell lymphoma. Treatment was initiated with the R-CHOP regimen, resulting in a complete metabolic response.

Discussion and Learning Points: The most common cause of biliary obstruction is gallstones, although it can also be due to benign strictures, manipulation of the bile duct through surgery or endoscopic retrograde cholangiopancreatography (ERCP), or malignant obstructions. Notably, pancreatic neoplasms, cholangiocarcinoma, and less frequently, lymphoproliferative syndromes, such as in our patient's case, can cause biliary obstruction.

Keywords: *cholangitis, lymphoma, cholestasis*

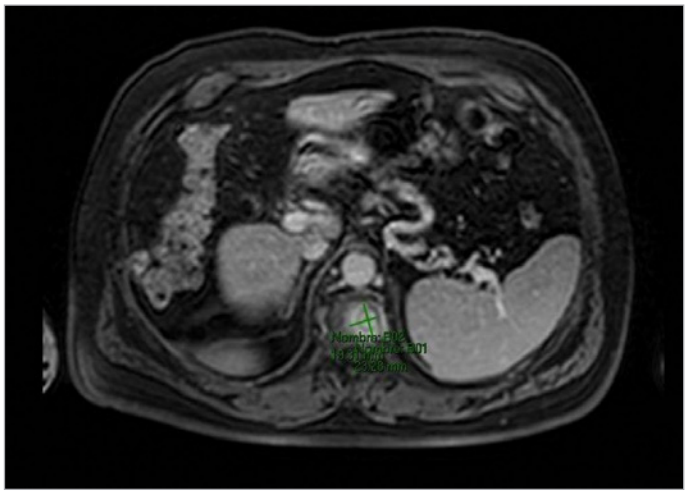

Figure 1. *D11 vertebral metastasis.*

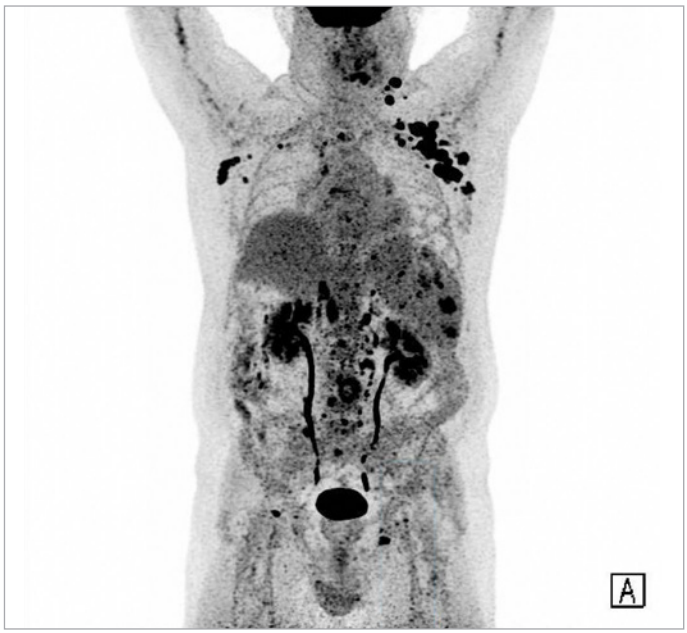

Figure 2. *ymphadenopathy in PET-CT.*

DOI: 10.12890/2024_V11Sup1

[Abstract:1148]

THE RELATION OF BODY MASS INDEX, HOMA-IR AND QUALITY OF LIFE IN PATIENTS WITH IRRITABLE BOWEL SYNDROME

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Objectives: Irritable Bowel Syndrome (IBS) presents with various symptoms that can negatively impact the quality of life. The symptoms and severity can vary among patients; hence a careful approach is essential for diagnosis and treatment. The aim of this study is to investigate the relationship between body mass index (BMI) and the quality of life in IBS patients.

Methods: Demographic information, age, gender, anthropometric measurements, and biochemical data (fasting blood sugar, insulin) of a total of 115 patients with IBS between 2019 and 2023 at the Bagcilar Training and Research Hospital were recorded. The World Health Organization Quality of Life Scale-Short Form (WHOQOL-BREF) was used for the assessment of quality of life. The relationship between BMI and quality of life was evaluated using Pearson correlation analysis. Additionally, differences in HOMA-IR (Homeostasis Model Assessment of Insulin Resistance) values by gender and age were assessed using Student's t-test.

Results: A negatively significant relationship with a correlation coefficient of 0.25 was observed between BMI measurement and WHOQOL BREF Total score (p:0.04). As BMI increases, the quality of life scores of the patients decreases (Table 1). However, there was no significant difference in HOMA-IR values by gender and age.

Conclusions: This study emphasizes that BMI may play an important role among the factors affecting the quality of life of IBS patients. Healthcare professionals can develop strategies to improve the quality of life of IBS patients by focusing on lifestyle modifications including weight loss.

Keywords: irritable bowel syndrome, body mass index, quality of life

Variables	BMI	HOMA-IR
WHOQOL Bref General Health	r: -0.30 p: 0.006	r: 0.07 p:NS
WHOQOL Bref Physical Health	r: -0.20 p: 0.05	r: 0.09 p:NS
WHOQOL Bref Psycology	r: -0.20 p: 0.05	r: 0.05 p:NS
WHOQOL Bref Social Relationship	r: -0.006 p: 0.95	r: 0.12 p:NS
WHOQOL Bref Environment	r: -0.20 p: 0.05	r: 0.25 p:NS
Total Score	r: -0.25 p: 0.04	r: 0.17 p:NS

Table 1. *The relation of world health organization quality of life scale with body mass index and HOMA-IR in patients with irritable bowel syndrome (n=115).*

WHOQOL: World health organization quality of life NS: Nonsignificant.

[Abstract:1151]

OUTCOME OF UPPER GASTROINTESTINAL ENDOSCOPY IN HOSPITALIZED PATIENTS WITH ANEMIA OR UPPER GASTROINTESTINAL BLEEDING

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Purpose: To investigate the outcome of upper gastrointestinal (GI) endoscopy in patients with anaemia or signs of upper GI bleeding in hospitalized patients in our oncology hospital.

Methods: In a retrospective study we examined 45 hospitalized patients that had upper GI endoscopy with the indication of anaemia or signs of upper GI bleeding (such as hematemesis or melena) and we analysed clinical and endoscopic data through the hospital's data base.

Findings: 45 patients (mean age 72 years-old), 20 female and 25 male were included. 7 out of 45 patients (15.56%) seemed to have acute upper GI bleeding and endoscopic haemostasis was performed. We identified as causes angiodysplasia in 28.57% (2/7), neoplasm in 14.28% (1/7), ulcer in 28.57% (2/7), anastomotic bleeding in 14.28% (1/7) and portal hypertensive gastropathy in 14.28% (1/7). 38 out of 45 patients did not have signs of acute upper GI active bleeding, but 52.63% of them (12 out of 38 patients) had one or more suspicious endoscopic findings (angiodysplasias in 8.3% (1/12), ulcer in 33.33% (4/12), portal hypertensive gastropathy in 16.67% (2/12), oesophageal varices in 16.67% (2/12), neoplasm in 25% (3/12). The remaining 26 patients (57.78% of total patients) had no findings connected with anaemia or haemorrhage in upper GI and underwent further investigation.

Conclusions: Anaemia or upper GI bleeding is a common finding in hospitalized patients. Active bleeding requiring endoscopic haemostasis occurred in 15.56%, while patients with no active bleeding had endoscopic findings in 26.67% in our study. Upper GI endoscopy is usually necessary during investigation but it is often not enough.

Keywords: anaemia, bleeding, endoscopy

 DOI: 10.12890/2024_V11Sup1

[Abstract:1184]

A RARE CASE: GLUCOSAMINE INDUCED LIVER TOXICITY

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[3] Deparment of Gastroenterology, Yildirim Beyazit University, Ankara, Turkey

A 77-year-old man who had been taking glucosamine tablets for osteoarthritis for one month developed symptomatic hepatotoxicity. On presentation, some of his liver enzymes were elevated up to 10 times the upper limit of the normal reference range. One month after discontinuing glucosamine, the patient's liver enzymes remain elevated, although a decreasing trend has been observed in most of them. The possible causes of the injury were investigated, but no cause was found. Patients with osteoarthritis for pain relief often use glucosamine. Although glucosamine supplements are commonly used, significant transaminase elevations are rare, even in the literature. The mechanism of injury caused by glucosamine has yet to be thoroughly investigated. The purpose of this case report is to present a possible association between hepatocellular injury and glucosamine use.

Keywords: *glucosamine, adult, hepatoxicity, supplements*

[Abstract:1198]

HYPERTRIGLYCERIDEMIA INDUCED ACUTE PANCREATITIS WITH TAMOXIFEN USE: A CASE REPORT AND THE REVIEW OF THE LITERATURE

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Background/Purpose: Tamoxifen leads to changes in the lipid/lipoprotein profile due to its estrogenic activity. It shows its effect by not only decreasing lipoprotein lipase and hepatic lipase enzyme activities but also increasing the triglyceride and VLDL (Very Low-Density Lipoprotein) synthesis in the liver. Although its effects are commonly moderate, there are few cases in the literature discussing hyperlipidaemia-associated complications such as acute pancreatitis.

Methods: This case report and the study in which 23 different cases in the literature were analysed contain, a discussion about a patient with tamoxifen-induced hypertriglyceridemia and acute pancreatitis following the 5-year tamoxifen usage and a detailed analysis of the current literature. Additionally, this study highlights the clinical differences between the patients who had prior dyslipidaemia and those with not by comparing the onset of pancreatitis, and the value of triglyceride and amylase levels.

Results: The mean duration of tamoxifen use was 9 vs 12 months, mean triglyceride levels 5380 mg/ dL vs 3012 mg/ dL, amylase levels 1265 IU/L vs 531 IU/L in groups with and without pre-existing hyperlipidaemia, respectively. This consequently, confirms in patients with prior dyslipidemia, the hypertriglyceridemia resulted in acute pancreatitis due to tamoxifen use, occur in a shorter period with a higher increase in serum triglycerides and amylase levels.

Conclusions: In patients on tamoxifen, serum triglyceride and amylase levels should be monitored regularly against the risk of developing hyperlipidaemia-induced acute pancreatitis.

Keywords: *acute pancreatitis, tamoxifen, breast cancer, hypertriglyceridemia*

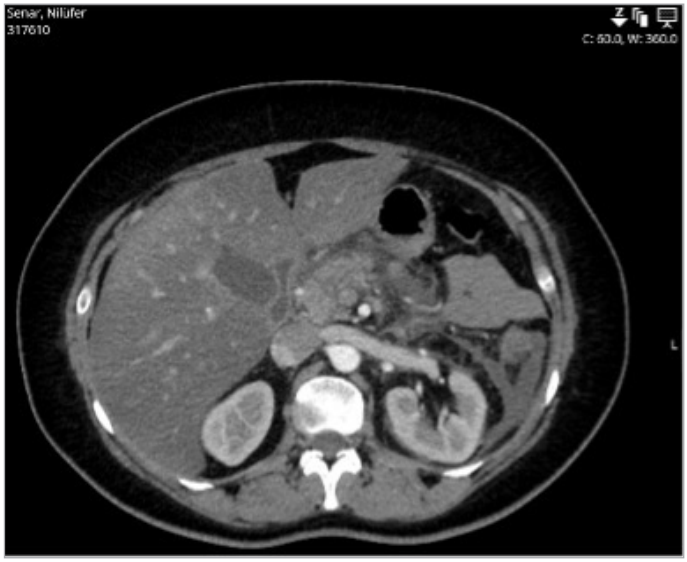

Figure 1. *Contrast-enhanced computed tomography showing diffuse, increased, density around the pancreatic tail (white arrow mark) and peripancreatic fluid collections (black arrow mark).*

	Prior Dyslipidemia	
	Yes n=8	No n=13
Mean Duration of Tamoxifen Use (months)	9 (min: 2; max: 36)	12 (min: 1; max: 60)
Mean Serum Triglycerides (mg/ dL)	5380, 57 (min: 752; max: 20344)	3012 (min: 155; max: 7929)
Mean Serum Amylase (IU/ L)	1265,75 (min: 179; max: 1727)	531,5 (min: 23; max: 1119)

Table-2: Summary of comparison between patients with/without prior dyslipidemia by clinical findings.

Table 2. *Summary of comparison between patients with/without prior dyslipidemia by clinical findings.*

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Serial No.	Authors	Age	Time of Tamoxifen Use (months)	TGC (mg/dL)	Amylase (IU/L)	Comorbidities	Prior Dyslipidemia	Family History of Dyslipidemia	Tamoxifen Replacement	Rechallenge	Outcome
1.	Noguchi et al. [10]	34	7	3673	348	Metastatic Breast Cancer	N/A	N/A	Discontinued	Not Done	Death by Hepatic Failure
2.	Colis et al. [6]	44	4	6643	179	-	Yes	Yes	Discontinued	Not Done	Favorable
3.	Elsaf et al. [2]	53	8	5200	1600	-	Yes	Yes	Discontinued, gemfibrozil	Not Done	Favorable
4.	Artac et al. [11]	51	12	1344	273	DM	N/A	N/A	Discontinued, gemfibrozil	Not Done	Favorable
5.	Lin et al. [9]	43	2	1005	1727	-	Yes	N/A	Discontinued	Not Done	Favorable
6.	Alagozlu et al. [7]	46	12	920	1557	DM	Yes	No	Discontinued, gemfibrozil	Not Done	Favorable
7.	Sakhri et al. [12]	44	12	1180	750	-	No	N/A	Discontinued for 10 months	Positive	Favorable
8.	Kabl et al. [13]	48	3	3170	N/A	Hypothyroidism, Obesity	No	N/A	Discontinued, fenofibrate, anastrazole	Not Done	Favorable
9.	Kim et al. [14]	40	3	3241	1119	DM	No	No	Discontinued, Goserelin acetate	Not Done	Favorable
10.	Czyzykowski et al. [1]	55	5	N/A	3222 (upper)	-	Yes	N/A	Discontinued, exemestane	Not Done	Favorable
11.	Singh et al. [4]	40	3	4568	778	DM	No	N/A	Discontinued, letrozole,atorvastatin	Not Done	Favorable
12.	Wadood et al. [8]	36	2	752	N/A	-	Yes	Yes	Discontinued, fenofibrate	Not Done	Favorable
13.	Kalaria et al. [15]	50	1	1050	280	-	No	No	Discontinued, letrozole	Not Done	Favorable
14.	Tey et al. [3]	55	48	3883	479	DM, HT	No	N/A	Discontinued, letrozole	Not Done	Favorable
15.	Yonevagua et al. [16]	48	6	2569	221	-	No	No	Discontinued, Letrozole	Not Done	Favorable
16.	Li et al. [17]	49	1	3358	N/A	HT	No	No	Discontinued, Fenofibrate	Not Done	Favorable
17.	Kochar et al. [18]	48	48	2611	N/A	-	N/A	N/A	Discontinued, Gemfibrozil	Not Done	Favorable
18.	Gorova et al. [19]	62	36	20344	N/A	DM, HT, Hypothyroidism, CAD	Yes	No	Discontinued, Gemfibrozil, Letrozole was commenced	Not Done	Favorable
19.	Ukkert et al. [20]	41	3	7929	693	-	No	No	Discontinued, Fenofibrate, Rosuvastatin	Not Done	Favorable
20.	Athyros et al. [21]	56	3	2800	N/A	-	Yes	Yes	Discontinued, only for 1 month, ciprofibrate	Positive	Favorable
21.	Jang et al. [22]	51	6	2534	348	-	No	N/A	Discontinued, fenofibrate, letrozole was commenced	Not Done	Favorable

Table 1. *Summary of reported cases with tamoxifen-induced acute pancreatitis- Abbreviations: N/A: Not Available, T2DM: Type-2 Diabetes Mellitus; HT: Hypertension; "-": no features.*

22.	Aboutaleb et al. [23]	42	9	950	N/A	-	No	No	Discontinued	Not Done	Favorable
23.	Jain et al. [24]	36	1	155	624	Metastatic Breast Cancer	No	No	Discontinued	Not Done	Favorable
24.	Present Case	46	60	4569	23	-	No	No	Discontinued, fenofibrate	Not Done	Favorable
Mean Values (min-max) and Percentages		46,58 (34-62)	12,29 (1-60)	3671,65 (1555-20344)	687,43 (23-1727)	-%25 of the cases have T2DM -%0,125 of HT	-%33,3 of prior dyslipidemia	-%16,6 of family history of dyslipidemia	-%100 of the cases discontinued Tamoxifen -%50 of initiating fibrates	-%91,6 of the cases did not rechallenge Tamoxifen	-%95,8 of the cases had a full recovery

Table 1. *Summary of reported cases with tamoxifen-induced acute pancreatitis, Abbreviations: N/A: Not Available, T2DM: Type-2 Diabetes Mellitus; HT: Hypertension; "-": no features.*

[Abstract:1221]

FIGHTING SHADOWS: UNRAVELING THE ENIGMA OF IDIOPATHIC RETROPERITONEAL FIBROSIS IN A COMPLEX CLINICAL ODYSSEY

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A 76-year-old woman with hypertension, type 2 diabetes mellitus, and dyslipidaemia presents with a two-month history of bilious vomiting, generalized abdominal pain, predominantly on the right flank with radiation to the back, and fever. She denies weight loss but reports loss of appetite and significant fatigue. Physical examination reveals a distended, tympanic, and tender abdomen on the right flank, along with a possible abdominal mass. Given these clinical findings, a comprehensive blood analysis, including proteinogram, and tumour markers, yields normal results. Persistent abdominal mass prompts an abdominal ultrasound followed by an abdominal CT scan, revealing soft tissue surrounding the abdominal aorta up to the iliac bifurcation. Additionally, there is dilation of the left proximal renal excretory pathway with delayed contrast elimination, suggesting potential ipsilateral renal damage. Despite an absence of obstructive cause in the left ureter and its apparent contact with the described soft tissue in the CT scan, idiopathic retroperitoneal fibrosis is considered as the cause of left obstructive uropathy. A biopsy of the retroperitoneal mass confirms fibrosis and inflammation, establishing the diagnosis of idiopathic retroperitoneal fibrosis with left obstructive uropathy. Treatment involves placing a left double-J catheter and initiating corticosteroid therapy. If therapeutic failure occurs, immunosuppressive therapies or surgery are considered.

Idiopathic retroperitoneal fibrosis manifests as fibrotic lesions around the bilateral periurethral region at the L4 level, involving the aorta. A differential diagnosis is essential, particularly with IgG4-related diseases, Hodgkin's disease, sclerosing mesenteritis, well-differentiated inflammatory liposarcoma, and other tumoral pathologies presenting as abdominal masses in the same region.

Keywords: *fibrosis, retroperitoneal, idiopathic*

[Abstract:1227]

UNMASKING THE ENIGMATIC INSULINOMA IN A GERIATRIC PUZZLE

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A 76-year-old male, with a history of hypertension and prior prostate adenocarcinoma treated with prostatectomy, presented symptoms since 2020, coinciding with the COVID-19 pandemic, including asthenia, weakness, and sweating, which improved postprandially. Dismissing these initially, he sought medical attention in December 2021 after a syncopal episode. Evaluation in the emergency room revealed hypoglycaemia (39 mg/dL), corrected with glucose infusion. Despite hemodynamic stability and an unremarkable physical examination, he was discharged for further investigation.

Subsequent fasting tests showed hypoglycaemia (54 mg/dL) with elevated insulin, HOMA, and C-peptide, ruling out other abnormalities. A suspicion of insulinoma led to an abdominal CT scan, revealing a well-defined, hypervascular lesion in the pancreatic uncinate process indicative of a neuroendocrine

 DOI: 10.12890/2024_V11Sup1

tumour. Successful surgical excision confirmed insulinoma on pathology, and the patient recovered without recurrent hypoglycaemic episodes. The discussion emphasized the rarity of symptomatic non-diabetic hypoglycaemia and the distinctive features of insulinoma, including the Whipple triad.

Insulinoma, a rare pancreatic beta-cell tumour, was discussed in the context of non-diabetic hypoglycaemia aetiologies. Diagnosis involves a fasting test measuring glucose, insulin, and C-peptide levels. Surgical excision is the preferred treatment, with a high cure rate. Medications like diazoxide or octreotide may be considered if symptoms persist postoperatively.

Recognizing insulinoma in patients with refractory neuropsychiatric symptoms during fasting is crucial. Timely diagnosis and intervention can prevent severe complications and mortality associated with this challenging condition.

Keywords: *hypoglycaemia, C-peptide, tumor*

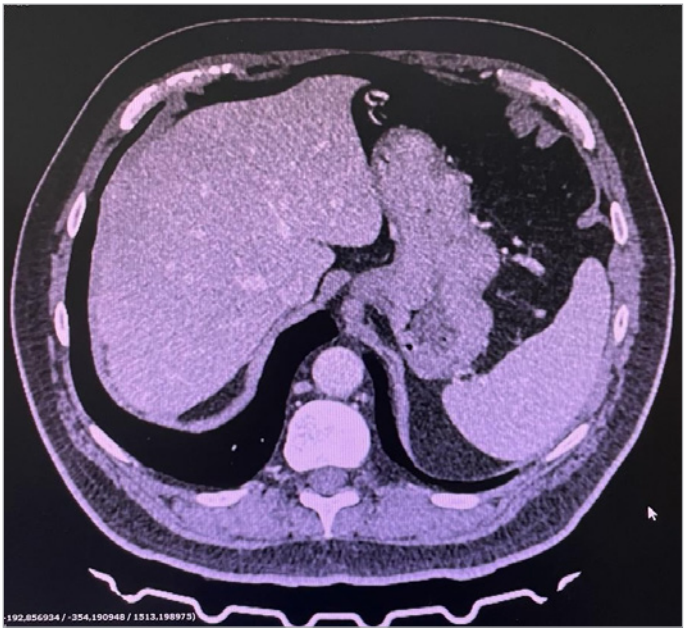

Figure 1.

[Abstract:1250]

EFFICACY OF REBAMIPIDE IN THE PREVENTION OF NSAID-INDUCED GASTROINTESTINAL MUCOSAL INJURY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Non-steroidal anti-inflammatory drugs (NSAIDs) are among the most used medications worldwide. A major limitation of these drugs is gastrointestinal mucosal injury. Several gastroprotective agents have been recommended but are limited by their long-term effects. Rebamipide is a promising mucoprotective agent, but its efficacy in NSAID use is not established. We performed a meta-analysis to assess rebamipide's effect on gastrointestinal injuries due to NSAID use.

Methods: Four electronic databases were searched from inception to October 2023 for randomized controlled trials that compared rebamipide with placebo or the standard proton pump inhibitors. Data were pooled to obtain odds ratio (OR) with 95% confidence interval. Heterogeneity and publication bias were assessed with I^2 statistic and funnel plot, respectively.

Results: A total of 472 studies were screened, with 18 studies included. Pooled analyses showed that for individuals with NSAID use, rebamipide significantly reduced the incidence of gastrointestinal ulcers [OR: 0.37 (0.19–0.70); I^2=13%, p=0.002] and gastrointestinal symptoms [OR:0.45 (0.23–0.88); I^2=48%, p=0.02] as compared to placebo. Rebamipide is also comparable to standard proton pump inhibitors (PPIs) in preventing NSAID-induced mucosal breaks [OR:0.86 (0.40-1.84); I^2=0, p=0.69]. Addition of rebamipide to PPIs is superior to PPIs alone in preventing mucosal breaks [OR: 0.34 (0.16–0.74), I^2=10%, p=0.006].

Conclusions: Rebamipide is effective in preventing gastrointestinal ulcers and symptoms due to NSAID use. Rebamipide may also be as good as PPIs in preventing gastrointestinal mucosal breaks, and hence may be an alternative especially in those with contraindications to long term PPI use. Addition of rebamipide to PPIs further increases their protective effects.

Keywords: *rebamipide, non-steroidal anti-inflammatory drugs, gastrointestinal mucosal injury, gastrointestinal ulcers*

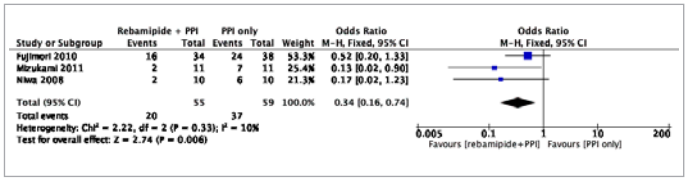

Figure 1. *Rebamipide + PPI vs PPI alone in NSAID-induced Gastrointestinal Mucosal Breaks.*
Addition of rebamipide to PPIs is superior compared to PPIs alone in preventing gastrointestinal mucosal breaks.

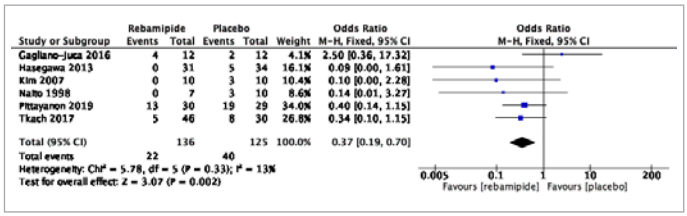

Figure 2. *Rebamipide vs Placebo in NSAID-induced Gastrointestinal Ulcers.*
Rebamipide is superior to placebo in the prevention of gastrointestinal ulcers in individuals with NSAID use.

DOI: 10.12890/2024_V11Sup1

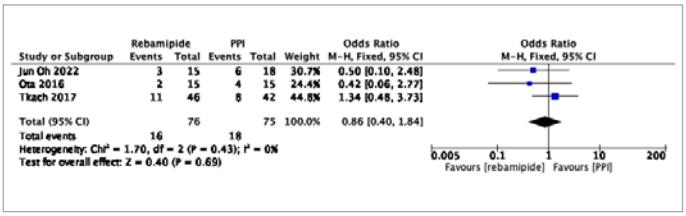

Figure 3. *Rebamipide vs PPIs in NSAID-induced Gastrointestinal Mucosal Breaks.*
Rebamipide may be comparable to PPI in preventing gastrointestinal mucosal breaks.

[Abstract:1252]

EOSINOPHILIC GASTROENTERITIS: A CASE REPORT

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Eosinophilic gastroenteritis is a rare entity characterized by peripheral eosinophilia, gastrointestinal symptoms and, rarely, serosal disease. In adults, they commonly present between the third and fifth decades. We report a rare case of a 44-year-old male with peripheral eosinophilia associated with gastrointestinal and serosal involvement. Our patient presented with a three-month history of persistent non-mucous non-bloody diarrhoea and worsening progressive fatigue. Isolated peripheral eosinophilia was detected. A computed tomography revealed ascites, a pancreatic lesion, and peritoneal fat with suspicious changes. An exploratory laparotomy revealed eosinophilic peritonitis with no other relevant histologic findings. No therapy was started.
Two weeks later the patient was admitted due dyspnoea, feeling bloated and perception of an increase in abdominal circumference, as well as diarrhoea and worsening fatigue. Clinically he had diminished breath sounds on the basal left hemithorax and a positive fluid wave test. Blood samples showed increased peripheral eosinophilia. An X-ray showed pleural effusion.
Immunology studies were normal. Parasitology findings were negative. An upper gastrointestinal endoscopy revealed a “tracheal-like appearance” in the oesophagus, suggesting a eosinophilic esophagitis diagnosis. Due to the high clinical suspicion, corticoid therapy was initiated, resulting in significant clinical and analytical improvement.
Although rare, eosinophilic gastroenteritis should be considered in the differential diagnosis of peripheral eosinophilia and abdominal symptoms, mainly in the absence of positive parasitological findings. This case emphasizes the importance of prompt recognition of the various causes of peripheral eosinophilia especially when associated with gastrointestinal and serosal manifestations. Highly clinical suspicion is key for a good clinical outcome.

Keywords: *eosinophilic gastroenteritis, diarrhoea, ascites, pleural effusion, corticoid therapy, case*

[Abstract:1282]

PROGNOSTIC FACTORS ASSOCIATED WITH MORTALITY AND ICU ADMISSION IN HOSPITALIZED CIRRHOTIC PATIENTS

María Milagros Castillo Matus, Julia Macías Ciemente, María Dolores Galán Azcona, Rosa Anastasia Garrido Alfaro, María Rocío Fernández Ojeda, José Luis García Garmendia, María Victoria Ruiz Romero

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Objectives: To determine the predictive factors of mortality and admission to intensive care (ICU) in cirrhotic patients hospitalized in Internal Medicine ward.
Methods: Retrospective study of a cohort of patients with history of liver cirrhosis admitted to a 8-bed ICU regional hospital between January 2011 and December 2022. Demographic, clinical and analytical variables at admission are described, as well as the development of complications of the cirrhosis (acute liver failure, kidney failure, hepatic encephalopathy and digestive bleeding) as reasons for admission to the ICU and its final evolution (hospital discharge or death). The SPSS v.27 program was used.
Results: 34 patients were included (67.6% men), mean age 61 years. The reason for admission was directly related to cirrhosis in 32 (94.1%) patients. The complications developed during their admission were: hydropic decompensation (26, 76.5%), digestive bleeding (10, 29.4%), acute renal failure (19, 55.9%), acute on chronic liver failure (25, 73.5%), hepatic encephalopathy grade III-IV (6, 17.6%), others (3, 8.8%). The average stay on internal medicine ward until admission to ICU was 7.3 days. Of the 34 patients admitted to the ICU, 16 died. Of the 6 patients with grade IV hepatic encephalopathy, 5 (31.3%) died versus 1 (27.8%) who did not, this difference was close to statistical significance (p= 0.078). The independent predictor variables of mortality were: elevated lactic dehydrogenase (274.5 in those who died versus 155.0; p= 0.025) and haemoglobin, which, was low in both groups, but higher in those who died (10.19 versus 8.62; p= 0.008).

Keywords: *prognostic factors, ICU Admission, cirrhotic patients*

Figure 1. *Hospitalized Cirrhotic Patients.*
⚠ *The authors did not provide the Figure upon requests from the event organizer.*

[Abstract:1290]

CELIAC DISEASE AND MYELOFIBROSIS: CAUSAL LINK OR COINCIDAL ASSOCIATION?

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Introduction: Celiac disease (CD) is a systemic immune-mediated enteropathy that develops as a result of interplay between

 DOI: 10.12890/2024_V11Sup1

genetic, immunologic, and environmental factors. Vascular and hematologic signs may constitute a circumstance of discovery of this enteropathy. Non-Hodgkin lymphoma remains the deadliest complications of CD whilst association with other hematologic neoplasm has only been described in rare observations. Here, we present a case of CD with Myelofibrosis.

Case Presentation: 51-years-old women has been admitted in order to investigate about a recent venous and arterial thrombosis. Physical examination has found pallor, spontaneous ecchymosis, grade 3 splenomegaly alongside a year history of weight loss, on the vascular side: lower limb oedemas and decreased pulses on the right tibial arteries.

Biology: inflammatory syndrome, pancytopenia with blood-smear and bone-marrow biopsy in favour of myelofibrosis.

CT scan was performed to assess the general state alteration, showing deep venous thrombosis of both lower extremities, a thrombo-embolic obstruction of the right common iliac artery in addition to an intracardiac right-ventricular thrombus. Upper endoscopy with histological analysis done in order to screen for potential neoplasia, showed instead an active and severe CD. Anticoagulation treatment and gluten-free diet have been initiated; the patient was subsequently referred to haematology for further therapeutics.

Conclusions: Hematologic comorbidities may be lethal in CD therefore bone marrow biopsy and further investigations should be performed at the slightest diagnostic doubt or atypical symptoms.

Keywords: *celiac, myelofibrosis, thrombosis, gluten, pancytopenia*

[Abstract:1300]

AN UNUSUAL CAUSE OF CHRONIC DIARRHEA

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A 72-year-old man with arterial hypertension reporting eight daily watery stools with mucus in the last year and a 3 kg weight loss. He had started an Olmesartan treatment a year ago. He denied fever, recent trips abroad, new foods in his diet or risky sexual relations. The physical examination was normal. Renal function, liver profile, C-reactive protein, LDH, TSH, proteinogram, hemogram and coagulation were normal. Stool culture and Clostridium toxin were negative, and no parasites were found in the stool. Serology for hepatotropic viruses, HIV and syphilis were also negative. Faecal calprotectin and immunoglobulin A levels were normal. Rheumatoid factor, antinuclear, anti-transglutaminase and anti-*S. cerevisae* antibodies were negative.

Abdominal X-ray and abdominal-pelvic CT scan showed no lesions. The endoscopic study was normal: gastric biopsy without alterations, duodenal biopsy without villous atrophy, and intestinal biopsy with non-specific inflammatory changes.

Olmesartan-induced enteropathy was suspected. Treatment with Olmesartan was then discontinued, and the symptoms rapidly resolved.

In July 2013, the Food and Drug Administration approved the inclusion of sprue-like enteropathy as an Olmesartan adverse reaction. Most patients show villous atrophy and intraepithelial lymphocyte infiltration, similar to celiac disease. In fact, many reported cases are previously diagnosed as non-responsive celiac disease. Both the clinical and histological alterations improve after withdrawal of the drug, so it is essential to include this entity in the differential diagnosis of chronic diarrheal disease.

In this patient the duodenal biopsy was performed after Olmesartan was discontinued, so villous atrophy could not be demonstrated.

Keywords: *olmesartan-induced enteropathy, sprue-like enteropathy, chronic diarrhoea*

[Abstract:1356]

COMPARISON OF THE EFFECT OF WARFARIN AND DIRECT ORAL ANTICOAGULANTS IN UPPER GASTROINTESTINAL SYSTEM BLEEDING

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Purpose: This study aimed to compare the frequency of drug usage among patients with upper gastrointestinal tract bleeding and to reveal the rates of recurrent upper gastrointestinal tract bleeding for one year.

Methods: 346 patients who applied to our hospital for one year with upper gastrointestinal tract bleeding and underwent endoscopy were included in this study. All data were examined by retrospective file scanning. Patients who had recurrent upper GI bleeding within 1 year were identified. Patients were divided into groups according to oral anticoagulant usage. Re-bleeding rate, length of stay, transfusion need, and mortality data between the groups were analysed.

Findings: When the frequency of drug use that would create bleeding risk in the 346 patients included in the study was examined, 102 (29.5%) used acetylsalicylic acid, 58 (16.8%) used clopidogrel, 19 (5.5%) used warfarin, 65 (18.8%) used new generation oral anticoagulants and 107 (30.9%) used nonsteroidal

 DOI: 10.12890/2024_V11Sup1

anti-inflammatory drugs. When the frequency of drug usage that creates bleeding risk was compared according to recurrent bleeding status and mortality status, it was determined that the two groups were statistically similar (table 1 and 2). When the patients were divided into two groups according to the recurrent gastrointestinal bleeding status and compared in terms of age, gender, comorbid conditions that may cause bleeding, medication use, and mortality, no significant difference was found.

Conclusions: We did not find any significant effect of warfarin and new-generation oral anticoagulants on recurrent upper gastrointestinal tract bleeding within 1 year.

Keywords: *gastrointestinal re-bleeding, warfarin, new oral anticoagulants*

	Recurrent GI Bleeding	No Recurrent GI Bleeding	
Drug name	n (%) (n = 250)	n (%) (n = 96)	p-value
Acetylsalicylic acid	79 (31.6)	23 (24)	0.163
Clopidogrel	44 (17.6)	14 (14.6)	0.501
Warfarin	16 (6.4)	3 (3.1)	0.231
New oral anticoagulants	49 (19.6)	16 (16.7)	0.532
Nonsteroidal anti-inflammatory drugs	76 (30.4)	31 (32.3)	0.733

Table 1. *The drug frequency according to the recurrent gastrointestinal (GI) bleeding status.*

	Deceased (n:53)	Alive (n:293)	
	n (%)	n (%)	
Acetylsalicylic acid	17 (32.1)	85 (29)	0.652
Clopidogrel	8 (15.1)	50 (17.1)	0.724
Warfarin	3 (5.7)	16 (5.5)	0.953
New generation oral anticoagulants	10 (18.9)	55 (18.8)	0.987
Nonsteroidal anti-inflammatory drugs	14 (26.4)	93 (31.7)	0.440

Table 2. *The drug frequency according to the mortality status.*

[Abstract:1369]

CHYLOUS ASCITES: ALERT AS UNDERLYING PATHOLOGY

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A 64-year-old male with a history of hypertension and diabetes mellitus 2 with microvascular involvement (retinopathy and chronic kidney disease [CKD]). He consulted for abdominal distension, dyspnoea and hyperoxia.

Physical Examination: changing abdominal dullness, ascitic swelling and peripheral oedema. Laboratory: normochromic normocytic anaemia, acute CKD, NT-proBNP 464 pg/mL and dissociated cholestasis. Paracentesis: milky fluid with a count of 1240 leucocytes/µL, 96% lymphocytes, serum-albumin ascitic-albumin gradient of 2.1, triglycerides 241mg/dL, negative cytology and microbiological study, including mycobacteria. Body CT: it does not characterize the lesions due to the absence of contrast. Abdominal MRI: pre-aortic mass and adjacent to the pancreas, as well as space-occupying lesions in the liver. Histology: adenocarcinoma of pancreatic origin.

Diagnosis: Pancreatic adenocarcinoma with liver metastases.

Atraumatic chylous ascites results from defects of the lymphatic system (32%), malignant disease (mainly lymphoma), mycobacterial infection (15%) and cirrhosis (11%). The mononuclear predominance in the fluid cell count narrows the diagnosis to tumour or mycobacterial infection.

The finding of chylous ascites is rare, characterised by a milky appearance and triglyceride count greater than 200mg/dL. It is caused by rupture of lymphatic vessels and should be considered as a manifestation of a serious underlying pathology. Chylous ascites should always alert to underlying pathology, even in supposedly healthy asymptomatic patients, opening the differential diagnosis to a wide range of entities, with cytological, cytochemical and microbiological study of ascitic fluid being essential for a better choice and performance of the available diagnostic tests.

Keywords: *chylous ascites, adenocarcinoma, triglycerides*

[Abstract:1393]

THE IMPACT OF BLEEDING LOCALIZATION ON PROGNOSIS IN PATIENTS WITH ACUTE UPPER GASTROINTESTINAL BLEEDING

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Upper gastrointestinal bleeding is an emergency condition associated with morbidity and mortality. While spontaneous cessation of bleeding occurs in up to 75% of cases, recurrence may occur in 25%. The likelihood of re-bleeding in patients with upper gastrointestinal bleeding is more pronounced in the lesser curvature or posterior duodenum.

In this study, we aimed to investigate the effects of bleeding localization on prognosis in patients with acute upper gastrointestinal bleeding. We prospectively categorized 356 patients with upper gastrointestinal bleeding who presented to Ankara City Hospital based on bleeding foci into regions: oesophagus, fundus-cardia, corpus, pylorus-antrum, and duodenum. Patients without identified foci were also evaluated, excluding oesophageal variceal bleeding.

When examining demographic and clinical characteristics, age, gender, presence of coronary artery disease, asthma/COPD, presentation with melena or hematemesis, aetiology of bleeding, size of bleeding lesion, need for endoscopic intervention and

 DOI: 10.12890/2024_V11Sup1

type, Rockall score, and variables such as prolonged hospital stay (>7 days) showed significant differences according to bleeding site and the presence of identified focus. Increasing age, atrial fibrillation, history of thrombosis, multiple chronic diseases, the need for clip application, red blood cell replacement, intensive care admission, need for inotropes, prolonged hospital stay statistically significantly increased the likelihood of re-bleeding and/or mortality.

It was revealed that increasing age independently increased the likelihood of re-bleeding and/or mortality. In our study, mortality and re-bleeding did not significantly differ based on the bleeding site. Therefore, in cases of bleeding in elderly patients, we recommend close monitoring and keeping follow-up intervals short.

Keywords: *gastrointestinal bleeding, bleeding site, mortality*

[Abstract:1402]

EVALUATION OF SERUM D-DIMER VALUES AND COAGULATION PARAMETERS IN PATIENTS WITH CROHN'S DISEASE

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Background/Aim: Crohn's disease (CD) has high risk of thromboembolism. We aimed to evaluate whether serum D-dimer values and coagulation parameters of CD patients relate to the clinical and laboratory traits of CD.

Methods: We retrospectively evaluated 70 CD patients and 66 healthy controls. The Crohn's disease activity index (CDAI) was used to assess the disease activity. Treatment status and disease localization were recorded in CD patients.

Results: The median D-dimer values were higher in patients with CD compared to healthy controls [0.6 (0.29-1.08) vs 0.27 (0.18-0.44), p<0.001 respectively]. The median D-dimer values were higher in the active patients than those in remission [0.89 (0.59-1.38) vs 0.31 (0.23-0.49), p<0.001 respectively]. The patients with ileocolonic disease had higher D-dimer values than those with ileal and colonic localizations (p=0.015 and p=0.008, respectively). The patients who were under treatment had lower D-dimer levels than those without treatment [0.43 (0.24-0.89) vs 0.84 (0.49-1.39), p=0.007 respectively].

Conclusions: Serum D-dimer values may be an easily applicable auxiliary marker to determine the disease activity in CD.

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Keywords: *Crohn's disease, D-dimer, coagulation*

[Abstract:1445]

POST-ERCP PAROTITIS: VERY RARE COMPLICATION

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Endoscopic Retrograde Cholangiopancreatography (ERCP) is a widely used method for imaging and treating the biliary and pancreatic ductal systems. Post-ERCP complications include pancreatitis, cholangitis, perforation, and bleeding, among others. However, post-ERCP parotitis is a rarely observed complication. The exact cause is not fully understood. This report discusses a case of parotitis presenting after ERCP.

Case Presentation: A 37-year-old female patient with a known history of sleep apnoea syndrome, hyperlipidaemia, and cholelithiasis presented to the emergency department with complaints of abdominal pain. Multiple millimetre-sized stones were found in all parts of the gallbladder, including its neck, during the emergency department visit. Stones were removed with ERCP from the common bile duct using a balloon, and a plastic stent was placed. On the same day as the procedure, the patient developed hyperaemia, pain, and swelling on the right side of her face over the mandibular bone. The CT report indicated oedema and heterogeneous evaluation of the parotis. The patient was started on IV ceftriaxone and metronidazole. Follow-ups revealed improvement in the patient's symptoms with no recurrence.

Conclusions: This report examines a very rare case of post-ERCP, the pathogenesis of which is still not fully explained.

Keywords: *post-ERCP parotitis, post-ERCP complications, parotitis, parotitis after endoscopy*

 DOI: 10.12890/2024_V11Sup1

[Abstract:1448]

ANALYSIS AND DIAGNOSIS OF ULCEROUS AND EROSIVE LESIONS IN THE GASTRODUODENAL MUCOSA IN PATIENTS WITH TYPE 1 AND TYPE 2 MYOCARDIAL INFARCTION

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Purpose: • Clinical and morphological monitoring of fatal outcomes in patients with type 2 myocardial infarction (T2MI).
• Examining the structure, risk factors and prevalence of ulcerous and erosive lesions in the gastroduodenal mucosa (UELGM) in patients with type 1 myocardial infarction (T1MI) and T2MI.
• Developing an algorithm for diagnosis, treatment and prevention of UELGM in patients with T1MI, T2MI.
Methods: Clinical and morphologic monitoring of COVID-19 patients hospitalized in 2021 with T1MI, T2MI and UELGM, in accordance with the rules for formulating and comparing clinical and pathological diagnoses.
Findings: In 104 patients: 52 with T1MI, 52 with T2MI, 64 men (61.5%) and 40 women (38.5%) aged 71±2.49 years. Among the patients UELGM was present in 8.7% of cases, gastrointestinal bleeding (GIB) in 4.8% (3.1% men, 7.5% women). In patients with T1MI, UELGM occurred in 1.9%, while for T2MI, this share amounted to 6.7%, GIB was verified in 71.4%. Patients with UELGM had hypertension (HD) (55.5%), diabetes mellitus (DM) (33.3%), obesity (22.2%), chronic kidney disease (CKD) (22.2%), chronic heart failure (CHF) (55.5%). 55.6% of patients with UELGM got gastroprotective therapy.
Conclusions: • In patients with T2MI, UELGM occurred 3.5 times more often than in patients with T1MI. In almost half of the cases it was complicated by GIB.
• Among proven risk factors of UELGM were HD, DM, obesity, CKD, CHF.
• Only half of patients with UELGM got gastroprotective therapy.
• Implementation of the algorithm increased the effectiveness of UELGM prevention in patients with T1MI and T2MI.

Keywords: *type 1 myocardial infarction, type 2 myocardial infarction, ulcerous and erosive lesions in the gastroduodenal mucosa, gastrointestinal bleeding, risk factors, gastroprotective therapy*

[Abstract:1524]

HEPATITIS CAUSED BY RESPIRATORY SYNCTIAL VIRUS INFECTION - A RARE CASE REPORT

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Introduction: Jaundice, also defined as the discoloration of the body tissue due to excess bilirubin(hyperbilirubinemia) may be due to increased production or impaired excretion of the bilirubin. The normal serum bilirubin levels are <1 mg/dl whereas the scleral icterus happens >3 mg/dl. Icterus acts as an indicator for the liver disease. Hereby we aimed to present a 24-yo male with icterus, acute liver injury and hyperbilirubinemia who was later diagnosed with RSV hepatitis.
Methods: Serum bilirubin, gamma glutamyl transferase, alanine aminotransferase, aspartate aminotransferase, lactate dehydrogenase, alkaline phosphatase were monitored during hospitalization and follow-up process. ENA profile, ANA levels, ASMA, p-ANCA, c-ANCA antibody, AFP levels were examined. MR-cholangiopancreatography was performed and liver biopsy was histopathologically analysed.
Results: The main complaint of the patient was scleral icterus and jaundice. He had no fever, cough or abdominal pain. B symptoms were negative. Physical examination was unremarkable except for a mild hepatomegaly. The main laboratorial irregularity was hyperbilirubinemia. The bilirubin levels increased progressively and ranged between 5.63-14.62 mg/ dl; With direct bilirubin being 4.41-11.75 mg/dl. AFP levels, rheumatological antibodies and hepatic markers were negative. Tru-cut liver biopsy was consistent with toxin-related liver injury. A respiratory multiplex PCR test was also taken on admission to the hospital. Later during the outpatient follow up, RSV PCR tested positive.
Conclusions: During evaluation of a patient with jaundice, the respiratory synctial virus (RSV) infections should be kept in mind both for diagnostic and treatment purposes even without common symptoms of the RSV infection such as cough, runny nose or sore throat.

Keywords: *jaundice, hepatitis, respiratory syncytial virus, hyperbilirubinemia*

	29.09.2022 (day15)	22.09.2022 (day 8)	19.09.2022 (day 5)	18.09.2022 (day 4)	17.09.2022 (day 3)	14.09.2022 (day 0)	23.08.2022
AST (RR:8-37)	69	27		25	30	37	28
ALT (RR:15-65)	104	50		48	68	101	69
GGT (RR:15-85)	43	86	120		153	209	185
ALP (RR:0-129)	158	171	146		149	154	118
Bilirubin, total (0.3-1 mg/ dl)	11.25	14.62		13.17	9.28	5.63	0.69
Bilirubin, direct (0-0.2 mg/dl)	9.29	11.75		10.25	7.41	4.41	0.28

Table 1. *Results of laboratory analyses during hospital treatment.*

DOI: 10.12890/2024_V11Sup1

Anti-HIV	NEGATIVE
Anti-HAV	NEGATIVE
Anti-HCV	NEGATIVE
HbsAg	NEGATIVE
Anti-Hbc IgM	NEGATIVE
Anti-Hbc IgG	NEGATIVE
Anti-HEV	NEGATIVE
EBV IgM Profile	NEGATIVE
CMV IgM	NEGATIVE
Coxsackie A Virus IgM	NEGATIVE
Parvovirus B19 IgM	NEGATIVE
Leptospira PCR	NEGATIVE
West Nile Virus PCR	NEGATIVE
Coxiella Brunettii	NEGATIVE

Table 2. Viral Antibody tests.

Influenza B	NEGATIVE
Influenza A	NEGATIVE
Human Corona 229E	NEGATIVE
Human Corona OC43	NEGATIVE
Human Corona NL63	NEGATIVE
Human Corona HKU1	NEGATIVE
Parainfluenza 1	NEGATIVE
Parainfluenza 2	NEGATIVW
Parainfluenza 3	NEGATIVE
Parainfluenza 4	NEGATIVE
Human Metapneumovirus (MPV)	NEGATIVE
Enterovirus (HEV)	NEGATIVE
Adenovirus (AV)	NEGATIVE
Human Bocavirus (BoV)	NEGATIVE
Human Parechovirus (HPeV)	NEGATIVE
Rhinovirus (HRV)negative	NGEATIVE
Legionella Pneumophilia	NEGATIVE
Mycoplasma Pneumoniae	NEGATIVE
Chlamydophilia Pneumoniae	NEGATIVE
Haemophilus Influenzae	NEGATIVE
Bordetella Pertussis	NEGATIVE
Streptococcus Pneumoniae	NEGATIVE
Respiratory Syncytial Virus (RSV)	POSITIVE

Table 3. Respiratory PCR Multiplex Test Results.

[Abstract:1526]

STERCORAL COLITIS: A CASE SERIES OF AN OVERLOOKED CAUSE OF ABDOMINAL SEPSIS

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Summary: Stercoral colitis (SC) is a serious inflammatory condition complicating chronic constipation that may lead to life-threatening sequelae including intestinal perforation. Bacteraemia and abdominal sepsis should be actively sought, the presence of which increases mortality.

Case Presentation: 1) An 81-year-old bedbound man with dementia from a high-level care nursing home presented to the emergency department in septic shock. Blood cultures revealed polymicrobial bacteraemia with computerized tomography (CT) abdomen showing features of SC (Figure 1 and 2).

2) A 76-year-old female from supported accommodation presented to the emergency department following a fall, with confusion and faecal incontinence. *Enterobacter Cloacae* was isolated from blood cultures and CT abdomen revealed severe faecal loading, with findings of SC.

3) An 88-year-old man was transferred to general medicine from the geriatrics ward with abdominal discomfort after a prolonged hospital stay post fall. Inflammatory markers were raised (WCC 14.26, CRP 291) and findings on CT abdomen were consistent with stercoral proctitis (Figures 3 and 4).

Conclusions: SC is a rare but life-threatening complication of constipation, diagnosed by clinical presentation and radiological findings. Atypical presentations, including falls and delirium, may occur in the elderly, requiring a high index of suspicion. The management is prompt resolution of faecal impaction and antibiotic therapy for sepsis if present; surgery is infrequently required. This highlights the importance of constipation prevention in the elderly.

References:

César Reátegui, Grubbs D. Non-perforated Stercoral Colitis patients with septic shock have a higher mortality than their perforated counterparts. International Journal of Surgery Case Reports. 2022 Sep 1

Keywords: stercoral colitis, constipation, sepsis, elderly

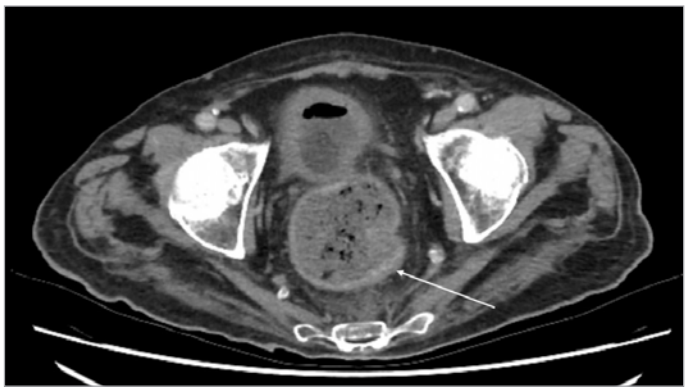

Figure 1.

DOI: 10.12890/2024_V11Sup1

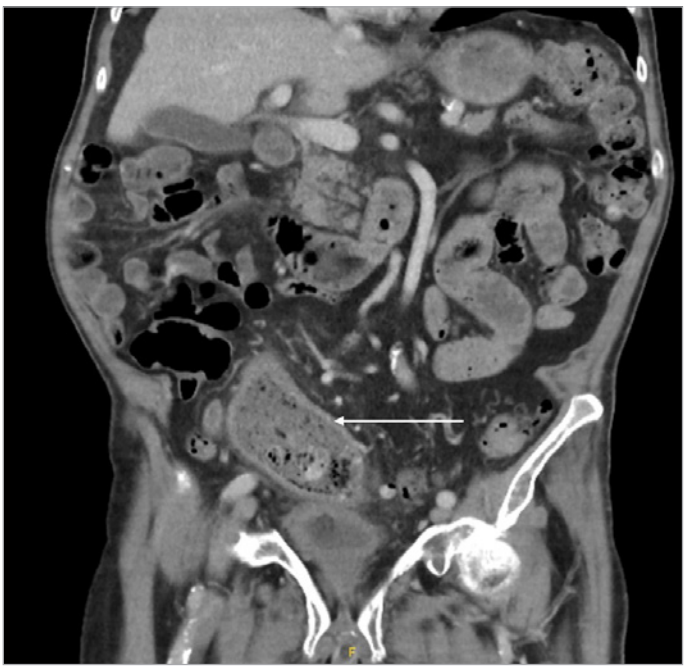

Figure 2.
Figures 1 and 2 reveal faecal loading of the rectum with surrounding fat stranding suggestive of stercoral colitis (arrow).

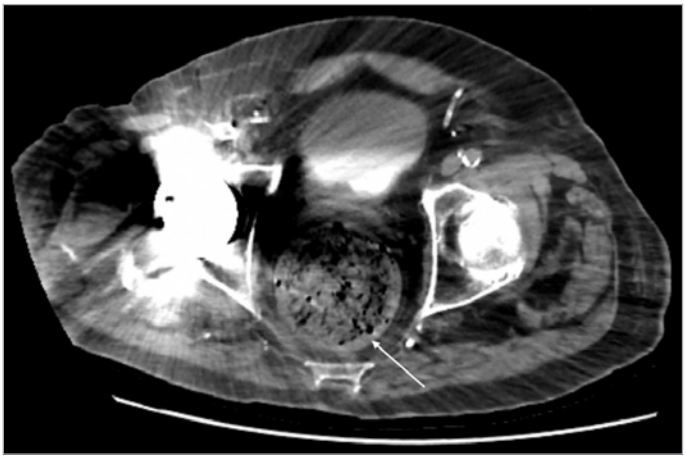

Figure 3.

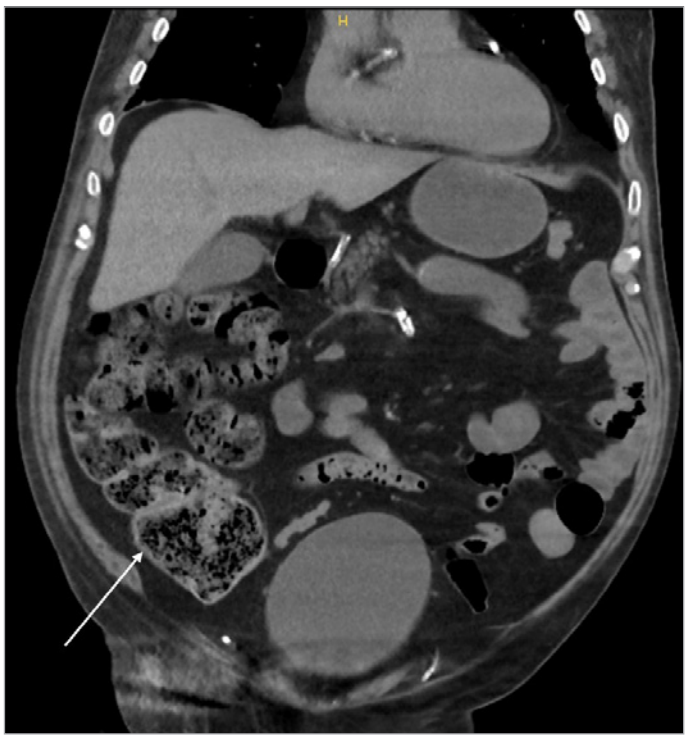

Figure 4.
Figures 3 and 4 show features of stercoral proctitis, with faecal loading and suspicion for small volume pneumatosis (arrow).

[Abstract:1532]

IGG4 RELATED DISEASE ACCOMPANYING WITH SERONEGATIVE OCULAR MYASTHENIA: A RARE CONDITION

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Case Description: 52-year-old-woman applied to emergency surgery clinic with abdominal pain, jaundice, nausea and itching. Amylase: 1014 U/L (28-100 U/L), lipase: 2175 U/L (13-60 U/L), ALP: 665U/L (35-104 U/L), ALT: 389 U/L (033 U/L), AST: 282 U/L (0-32 U/L), total bilirubin: 3.21 mg/dL (0-1.2 mg/dL), direct bilirubin: 2.24 mg/dL (0-0.30 mg/dL), GGT: 857 U/L (6-42 U/L). MRCP revealed a suspicious solid lesion in the pancreatic uncinate process, narrowing in distal common bile duct, dilatation in the proximal common-intrahepatic bile ducts. In ERCP, stent was placed in distal common bile duct. EUS revealed heterogeneous, solid lesion of pancreas, thickening of common bile duct suggested pancreatic malignancy or autoimmune pancreatitis.

Clinical Hypothesis: Presumptive diagnosis is IgG4-related

DOI: 10.12890/2024_V11Sup1

autoimmune pancreatitis and sclerosing cholangitis or pancreas malignancy.

Diagnostic Pathways: The patient was settled to our internal medicine clinic for further evaluations. IgG: 12.9 g/L (7.67–5.9 g/L), IgG4: 3.11g/L (0.03-2.01 g/L). MRI (dynamic contrast-enhanced diffusion), was evaluated as autoimmune pancreatitis with no focal lesion (Figure 1). 18-FDG-PET was evaluated as autoimmune pancreatitis (Figure 2). EUS biopsy (WHO-Pancreatobiliary-Cytopathology-Reporting-System) was evaluated malignancy negative; compatible with autoimmune pancreatitis. The patient complained of weakness and double vision during service follow-ups. Bilateral ptosis was detected. Increased jitter with repetitive stimulation in EMG was evaluated in favour of Ocular Myasthenia Gravis. ACh-receptor, anti-MUSK-antibodies were negative. Creatinine kinase, sedimentation, C3, C4 were normal. Cranial and orbital MRI's showed bilateral lacrimal glands volume increase, evaluated as IgG4-RD. The patient treated with prednisolone, pyridostigmine, calcium, vitamin-D. Patient is currently under follow-up and in remission.

Discussion and Learning Points: IgG4 is an incomprehensible antibody that may have protective or pathogenic effects in various autoimmune diseases. The role of IgG4 in IgG4-mediated autoimmune diseases creates opportunities for future research.

Keywords: *autoimmune pancreatitis, pancreas malignancy, IgG4*

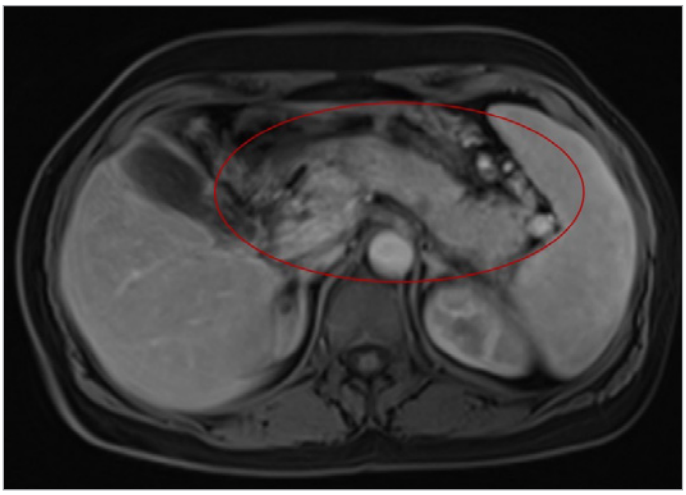

Figure 1. *Upper abdomen MRI shows fullness of the pancreas and a mild flattening of its contours.*

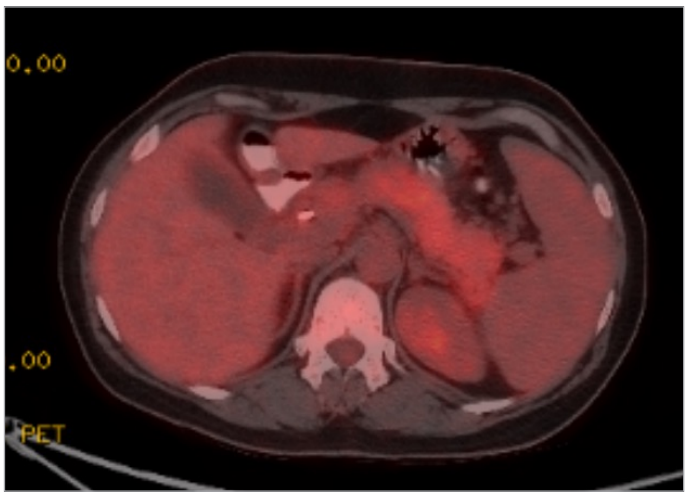

Figure 2. *Diffuse increased FDG uptake in the pancreas, which is predominantly in the head of the pancreas, suggesting autoimmune pancreatitis.*

[Abstract:1534]

A RARE CAUSE OF INTRAMURAL ESOPHAGEAL HEMATOMA: PEMPHIGUS VULGARIS

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Intramural oesophageal hematoma (IEH) or dissecting intramural hematoma of the oesophagus is a rare entity that presents with acute oesophageal symptoms with bleeding between the layers of the esophagus. IEH can occur spontaneously or secondary to trauma such as toxic substance use, iatrogenic interventions, vomiting or retching. Anticoagulant/antiaggregant therapies are among the predisposing factors.

Pemphigus is a group of autoimmune diseases that cause blisters in skin and mucous membranes. We know that one of its rare presentations is oesophageal involvement. There are 5 cases of oesophageal involvement with upper gastrointestinal bleeding. We didn't find any case about oesophageal hematoma related with pemphigus vulgaris.

In this report, we present a case who applied to our clinic with hematemesis and dysphagia and found to have intramural oesophageal hematoma on upper GIS endoscopy after that diagnosed pemphigus vulgaris with proven oral mucosal biopsy.

Keywords: *GIS bleeding, oesophageal hematoma, pemphigus vulgaris*

DOI: 10.12890/2024_V11Sup1

[Abstract:1586]

THE CHANGING SCENARIO OF CELIAC DISEASE

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Aim: A lot has been written about Celiac Disease (CD) epidemiology and presentation during the last decade. The aim of our research is to highlight the changes in epidemiology and clinical presentation of CD in the last two decades.

Methods: Data from the records of 837 prospectively enrolled non paediatric (age >16 years old) patients with diagnosis of CD referring to a tertiary centre were analysed. Univariate trend analysis was led via chi-square test, multivariate trend analysis was led via ordinal regression.

Results: Our data showed an increasing trend across the time span for male frequency ($p<0.001$), and age at diagnosis ($p<0.001$), while a decreasing trend was observed for the frequency of weight loss at presentation ($p=0.006$) and low bone mass density at first DXA evaluation ($p<0.001$).

Discussion: Our data highlighted two important changes in the epidemiology of CD, consisting of the increased the frequency of male patients in our population (without the inversion of the male:female ratio) and of the increased age at diagnosis. The decreasing trend in weight loss and low bone mass density at presentation may be related to the recognition of milder and less malabsorptive form of CD. It appears reasonable that those changes in epidemiological and clinical presentation are not the results of intrinsic changes of CD presentation but should be related to the evolution of knowledge about CD in adults, with increased recognition of milder form of CD that would have not been recognized in the past.

Keywords: celiac disease, anaemia, epidemiology

[Abstract:1587]

LONGITUDINAL IMPROVEMENT OF LIVER STIFFNESS IN A PATIENT WITH SERONEGATIVE CELIAC DISEASE AND CRYPTOGENIC CIRRHOSIS AFTER GLUTEN FREE DIET INITIATION

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A 45-years-old woman, without history of hepatic nor gastrointestinal diseases, presented to the emergency department with ascites and peripheral oedema associated with altered liver function tests (LFTs) and severe hypoalbuminemia, reporting a weight loss of 8 kg over the last year. Ultrasound showed mild signs of portal hypertension, while 2D-shear-wave-elastography (2D-SWE) demonstrated an increased liver stiffness (22.4 kPa) suggestive for cirrhosis. The patient denied alcohol intake, and was HBV/HCV negative, as well as test for anti-nuclear, anti-smooth-muscle and immunoblotting for autoimmune liver diseases associated autoantibodies. She underwent an upper GI endoscopy showing duodenal scalloping, and multiple duodenal biopsies revealed villous atrophy with increased intraepithelial lymphocytes (IELs) consistent with Marsh 3a stage.

The patient's serum tested negative for anti-tissue-transglutaminase IgA antibodies, with normal IgA, IgG and IgM serum levels. Human leukocyte antigen (HLA) testing showed genetic susceptibility (DQ2) to celiac disease. Test for anti-enterocyte antibodies resulted negative.

In the suspected of seronegative celiac disease (CD) gluten-free diet (GFD) was started. After one year of strict GFD, duodenal biopsies were reassessed, revealing normal villous trophism and IELs count. 2D-SWE re-evaluations showed decreased liver stiffness (12.2 kPa after 1 year and 6.8 kPa after 2 years of strict GFD). Three years after the start of the GFD no episodes of decompensation nor alteration in LFTs were observed.

In patients with cryptogenic cirrhosis, underlying CD, even seronegative, should be considered due to the potential improvement of the liver disease after starting GFD.

Keywords: celiac disease, seronegative villous atrophy, cirrhosis, cryptogenic cirrhosis

[Abstract:1632]

BILIARY SLUDGE. ANALYSIS OF A CLINICAL CASE

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Case Presentation: Patient B., 50 years old, complained of girdle pain and heaviness in the right hypochondrium after errors in diet, diarrhoea 3 - 4 times a day, nausea, vomiting of food eaten, bitterness in the mouth in the morning.

Physical examination data: The condition is satisfactory. The tongue is coated with a yellow-brown thick coating. The skin, visible mucous membranes are icteric. Abdomen: Regular, symmetrical. Ultrasound of the PD: GB: heterogeneous bile with clots of different contrast. Liver: fatty infiltration, moderate hepatomegaly. EGDS and duodenography: In the lumen of the stomach and 12 sc. bile. The intestinal lumen is free. Vater nipple 5 - 6 mm. Its mucosa was unremarkable. The mouth is free.

Diagnosis: Cholelithiasis, stage I. Biliary sludge type 2. Treatment Diet Drug therapy: UDCA+ glycyrrhizic acid 750 mg +75 mg per day for 3 months.

Conclusions: Early diagnosis and treatment of biliary sludge is of great clinical and prophylactic importance due to the possibility of

 DOI: 10.12890/2024_V11Sup1

disease progression with the transformation of biliary sludge into chronic cholecystitis and gallstone disease.
This fact is associated with motor disorders of the biliary tract, which cannot be stopped by taking UDCA drugs. The addition of selective antispasmodics to urso therapy, which has a selective antispasmodic effect on the sphincter apparatus and affects the motor function of the biliary tract, makes it possible to relieve pain and symptoms of biliary dyspepsia.

Keywords: *gallbladder, biliary sludge, gastrointestinal tract, cholelithiasis, duodenal-gastric reflux, UDCA + glycyrrhizic acid*

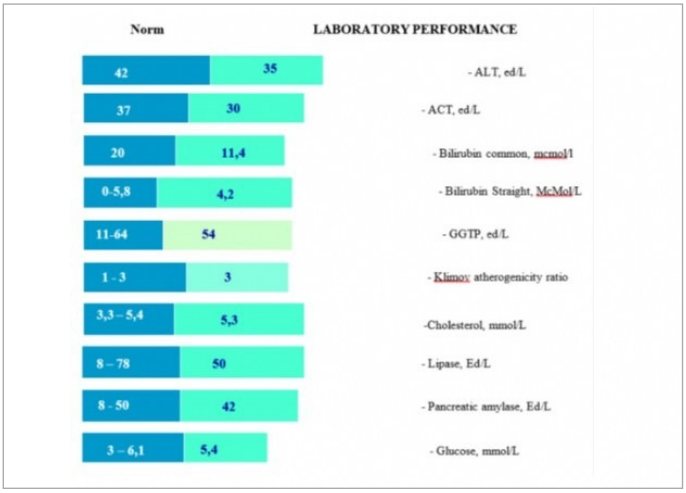

Figure 1. *Laboratory results (3 month of treatment).*

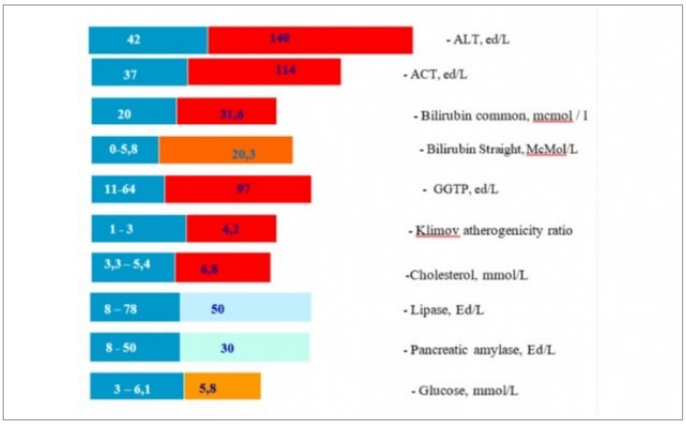

Figure 2. *Laboratory results (upon admission of the patient).*

[Abstract:1653]

DRUG-INDUCED LIVER INJURY - DIAGNOSIS OF EXCLUSION

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Aim: To develop algorithm of diagnostics drug-induced liver diseases a liver allowing operatively and authentically to put the diagnosis: drug-induced liver injury.

Methods: The results of research of function of a liver are analysed: definition of markers virus, autoimmune and oncology process: HbsAg, HBV-DNA,HCV-RNA,CA, AFP, LMN/LM; tool methods: ultrasound analysis, computer tomography, endoscopically retrograde cholangiopancrea-tography, laparoscopy with biopsy, laparotomy with cholecistocholangiography 1200 patients concerning group of risk on development of a pathology of a liver.
Results: Differential diagnosis of medicinal defeats of a liver with a wide circle of diseases of a liver such, as acute virus hepatitis (A, B, C), Gilbert syndrome, bilious - stone illness, oncology and autoimmune liver diseases. Besides, were excluded: chronic hepatitis, cirrhosis, alcoholic liver diseases, tumour of the liver, heavy infectious. The construction of algorithm consists in the directed search of the basic disease. At the first stage the analysis of clinical research and screening laboratory methods was carried. At the second stage carry out a choice of special laboratory-tool methods and analysis of their results. An ultimate goal of the analysis was the establishment of the diagnosis.
Conclusions: The developed algorithm, based on the principles of optimal diagnostic feasibility (i.e., on differential diagnosis and recognition of liver diseases by consistently excluding pathology of the hepato-pancreatobiliary region with an optimal volume of research), allows us to establish a diagnosis of drug-induced liver injury.

Keywords: *drug-induced liver injury, acute hepatitis, acute liver failure, diagnostic algorithms, RUCAM, biomarkers*

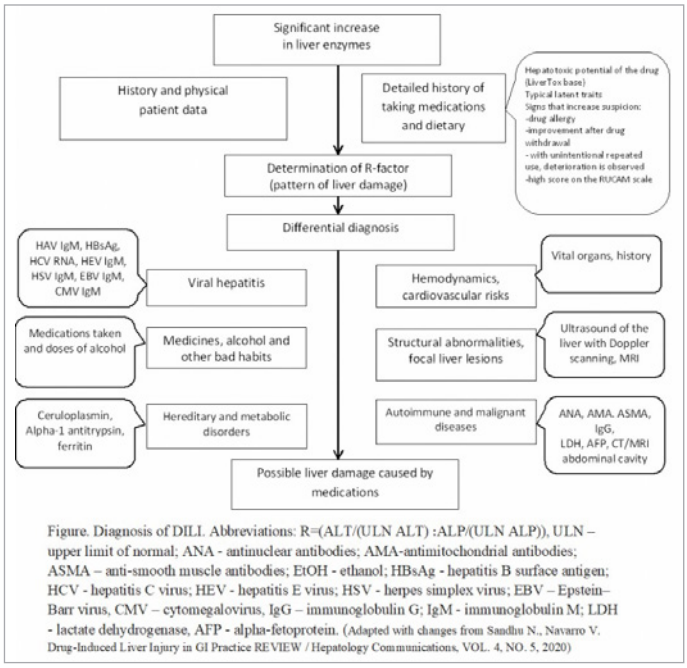

Figure. Diagnosis of DILI. Abbreviations: R=(ALT/(ULN ALT) :ALP/(ULN ALP)), ULN – upper limit of normal; ANA - antinuclear antibodies; AMA-antimitochondrial antibodies; ASMA – anti-smooth muscle antibodies; EtOH - ethanol; HBsAg - hepatitis B surface antigen; HCV - hepatitis C virus; HEV - hepatitis E virus; HSV - herpes simplex virus; EBV – Epstein–Barr virus, CMV – cytomegalovirus, IgG – immunoglobulin G; IgM - immunoglobulin M; LDH - lactate dehydrogenase, AFP - alpha-fetoprotein. (Adapted with changes from Sandhu N., Navarro V. Drug-Induced Liver Injury in GI Practice REVIEW / Hepatology Communications, VOL. 4, NO. 5, 2020)

Figure 1. *Algorithm of diagnostics drug-induced liver diseases.*

DOI: 10.12890/2024_V11Sup1

[Abstract:1669]

COMPARISON OF MACROSCOPIC AND HISTOPATHOLOGIC FINDINGS OF ENDOSCOPIC EXAMINATION OF THE PATIENTS WITH AND WITHOUT COVID-19 INFECTION

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Aim: It has been shown that SARS-CoV-2 can cause inflammatory reactions by directly targeting gastric and intestinal epithelial cells. In this study, we examined the association of previous COVID-19 infection and the incidence of endoscopic pathologies

Materials and Methods: In our study, patients who underwent gastroscopy between March 2020 and December 2022 were examined. A total of 279 patients who had not previously had COVID-19 were included as the control group, and 278 patients who had previously had COVID-19 infection which as confirmed by clinical, radiologic, or nasal swab PCR examination which were included as the research group. Macroscopic and histopathologic findings of endoscopic examination were recorded from the medical recordings of all patients.

Results: The rate of endoscopic duodenitis was significantly higher, and the rate of *Helicobacter Pylori* was significantly lower in patients with positive COVID-19 infection history, compared to patients who did not have COVID-19. The rate of Candida esophagitis and atrophy in elderly people with previous COVID-19 was significantly higher than in young and middle-aged people. The rate of GI bleeding in patients with less than 6 months between COVID-19 and endoscopic examination was significantly higher than in those with >6 months.

Conclusions: Previous COVID-19 infection is associated with duodenitis, and higher incidence of GI bleeding in the first 6 months of infection. Additionally, candida esophagitis and gastric atrophy are more commonly observed in the elderly population with previous COVID-19.

Keywords: *Coronavirus disease 2019, COVID-19, endoscopy, duodenitis*

[Abstract:1717]

TUBERCULOSIS PERITONITIS SECONDARY TO ANTI-TNF USE IN THE COURSE OF ULCERATIVE COLITIS DISEASE

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Therapeutic blockade of tumour necrosis alpha (anti-TNF-α) is the mainstay treatment of several inflammatory diseases such as inflammatory bowel diseases (IBD).Blocking this cytokine may cause the development of opportunistic infection and especially the risk of reactivation of latent tuberculosis infection.

In this case, we planned to present tuberculous peritonitis that developed after treatment in a patient with severe Ulcerative Proctitis treated with infliximab.

A 44-year-old female patient was diagnosed with Ulcerative Proctitis in 2017.The patient was started on mesalazine tablets and enema. Infliximab treatment was started in 2021 due to the increase in bloody diarrhoea during follow-up. The patient was admitted to our hospital with complaints of chills, intermittent fever and abdominal distension. On physical examination, there was grade-2 ascites and widespread tenderness in the abdomen. Acid analysis in the patient for whom acid sampling was performed is presented in the table (Table 1). *Mycobacterium Tuberculosis Complex* DNA was detected in the peritoneal fluid sent from the patient. It was determined that the patient's Purified Protein Derivative (PPD) was 0 mm before infiximab treatment and no booster was applied. The patient was evaluated as having peritoneal tuberculosis reactivation on an immunosuppressive basis and tuberculosis treatment was initiated.

All patients scheduled for anti-TNF-α therapy should be screened for tuberculosis infection before initiating immunosuppressive therapy. Interferon-gamma release test (IGRA) or tuberculin skin test (PPD) can be used as screening. The use of a single screening test does not identify all patients at risk of tuberculosis infection.

Keywords: *infiliximab, inflammatory bowel disease, peritoneal tuberculosis*

 DOI: 10.12890/2024_V11Sup1

Parameter	Value
Ascitis Fluid WBC	1680/µL
Ascitis Fluid PMNL	120/µL
Ascitis Fluid MNL	1510/µL
Serum Albumin	3.1 g/dL
Ascitis Fluid Albumin	2.4 g/dL
SAAG	0.7 g/dL
ADA	58.6 IU/L

Table 1. *Ascitis Fluid Tests.*
WBC: White blood cell PMNL: Polymorphonuclear leukocyte MNL: Mononuclear leukocyte SAAG: Serum-to-ascites albumin gradient ADA: Adenosine Deaminase.

[Abstract:1722]

INTRADUCTAL MUCINOUS PAPILLARY NEOPLASM, A SILENT CONDITION

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Case Description: 44-year-old woman came to the emergency department for low back pain radiating to both hypochondrium. Blood test showed leukocytosis with neutrophilia as the only inflammatory data, without other analytical alterations. Ultrasound showed a discrete decrease in pancreatic echogenicity and changes in the adjacent fat. As personal history, the patient had recently diagnosed type 2 diabetes mellitus, with combined therapy with basal insulin due to poor glycaemic control with oral antidiabetics.

Clinical Hypothesis: As a differential diagnosis, the first possibility was an episode of acute pancreatitis. As a second possibility, the existence of renoureteral crises was raised, which was unlikely due to the absence of renal lithiasis in the imaging tests and normal systematic urine tests.

Diagnostic Pathways: In order to guide the proposed diagnosis, we ordered a magnetic resonance imaging that showed a cystic lesion suggestive of intraductal papillary mucinous neoplasm (IPMN), communicating with the main duct and associated with signs of distal pancreatitis. Finally, the pathological anatomy confirmed the diagnosis.

Discussion and Learning Points: Intraductal papillary mucinous neoplasm (IPMN) is a cystic lesion consisting of mucin-producing epithelium. It is anatomically classified into two subtypes, depending on its relationship to the main or secondary pancreatic duct. Most cases of IPMN are asymptomatic, sometimes associated with the sudden onset of type II diabetes mellitus. However, other patients present self-limited symptoms, due to the intermittent obstruction of the pancreatic duct by mucin, without presenting the analytical alterations and typical symptoms of acute pancreatitis.

Keywords: *acute pancreatitis, diabetes mellitus, intraductal papillary mucinous neoplasm*

[Abstract:1731]

CLINICAL FEATURES OF COMPREHENSIVE ASSESSMENT OF NUTRITION STATUS OF PATIENTS WITH NAFLD

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Non-alcoholic fatty liver disease is a multisystem disease and is the most common chronic liver disease, the prevalence of which is steadily increasing. The prognosis of NAFLD directly depends on the patient's lifestyle, so a comprehensive assessment of nutritional status allows one to choose the right therapeutic approaches for the patient. Study of clinical and nutritional characteristics of patients with NAFLD depending on body mass index.

A comprehensive assessment of nutritional status was performed, including analysis of eating disorders, anthropometry, bioimpedansometry and assessment of actual nutrition at the Regional Clinical Hospital of War Veterans No. 3 in Novosibirsk in 349 people. Of these: 113 patients with NAFLD without obesity, 122 patients with NAFLD with obesity and 114 apparently healthy people.

Results: Patients with NAFLD, both obese and non-obese, compared with the control group, more often suffer from an eating disorder (mainly emotional), have significant changes in body composition and an unbalanced diet. The study also analysed the relationships between indicators of nutritional status and actual nutritional indicators.

Conclusions: As a result of the study of the nutritional status of NAFLD patients, the most informative integral data are presented that determine the disorders in the studied phenotype. The knowledge gained can be aimed at optimizing early diagnosis

 DOI: 10.12890/2024_V11Sup1

and prevention, as well as predicting nutritional and metabolic disorders in NAFLD with different BMI.

Keywords: *non-alcoholic fatty liver disease, nutritional status, eating disorder, bioimpedance measurement, assessment of actual nutrition*

[Abstract:1763]

A RARE CAUSE OF PORTAL HYPERTENSION: WANDERING SPLEEN

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Background: Wandering spleen is a condition in which the spleen can be in different places in the abdomen because one or all the ligaments that hold the spleen in its normal position are absent or inadequately developed.

Case Presentation: A 29-year-old otherwise healthy female patient presented with abdominal pain. All values in his blood work were within the normal range apart from platelet count of 114,000/mL. The patient's ultrasonography revealed 180 mm spleen in the pelvis, and 7.5 cm ascites. It also showed non-cirrhotic normal-sized liver. The liver is also evaluated with liver elastography, no fibrosis or steatosis detected. Serum acid albumin gradient of the ascites was detected as 1.62 g/dL, and total protein was above 2.5 g/dL. Varicose veins seen at the fundus during gastroscopy. Abdominal CT angiography performed, a partial torsion of the splenic pedicle without any ischemia or hypoperfusion of the spleen was seen. Then the patient was evaluated with the gastroenterology-general surgery-radiology departments, a consensus on laparoscopic splenectomy was reached due to the possibility of splenic infarction.

Conclusions: A wandering spleen is a very rare clinical condition, the cases with ascites and gastric varices are even rarer. Wandering spleen may lead to torsion of the vascular pedicle of the spleen, a chronic volvulus with portal hypertension, splenic infarction. The definitive treatment is surgery, as complication rates can rise up to 65% without splenectomy.

References: Koliakos E, et al. Wandering Spleen Volvulus: A Case Report and Literature Review of This Diagnostic Challenge. Am J Case Rep. 2020 Sep

Keywords: *wandering spleen, portal hypertension, volvulus*

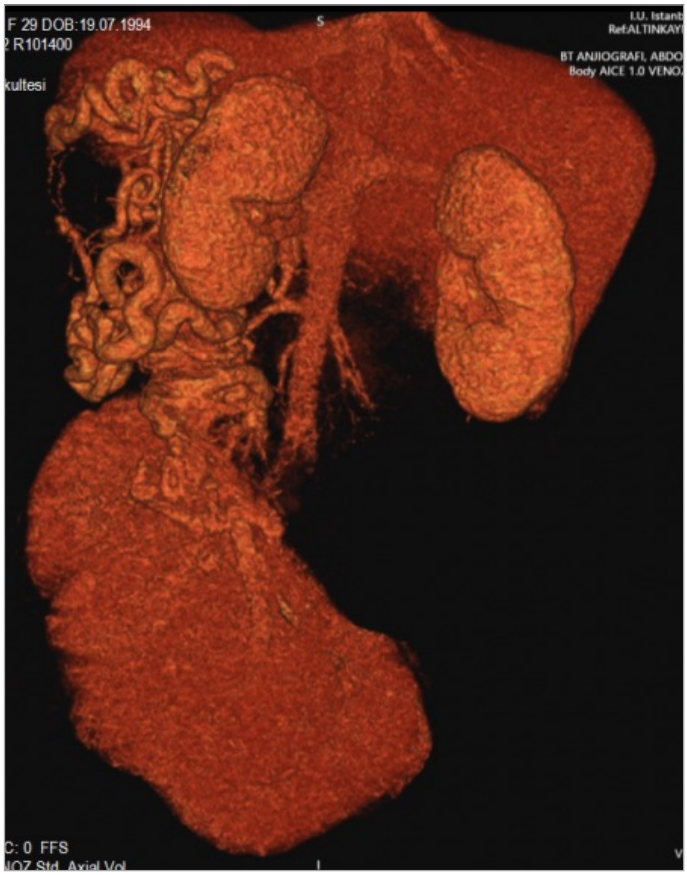

Figure 1. *CT angiography.*

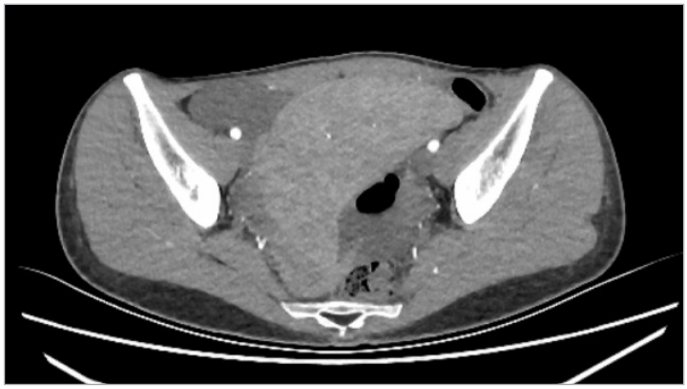

Figure 2. *CT: wandering spleen in the pelvis.*

DOI: 10.12890/2024_V11Sup1

[Abstract:1770]

RESULTS FROM A PRELIMINARY ONGOING PROSPECTIVE STUDY INDICATE SUPAR AS A POTENTIAL NOVEL BIOMARKER OF BIOCHEMICAL ACTIVITY IN AUTOIMMUNE HEPATITIS

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Purpose: Autoimmune hepatitis (AIH) is a liver disease, causing chronic inflammation and may lead to advanced liver disease. Soluble urokinase plasminogen activator receptor (suPAR) is a circulating biomarker associated with inflammatory and pathological conditions. Purpose of our prospective study was to investigate if suPAR levels are affected by AIH activity or the response to treatment.

Methods and Findings: 10 patients with newly diagnosed AIH have been included; 6/10 presented with acute hepatitis. All patients received corticosteroids, 7 in combination with mycophenolate mofetil and 3 with azathioprine. Parameters recorded at baseline and during visits after treatment initiation were aspartate aminotransferase (AST), alanine aminotransferase (ALT), immunoglobulin G (IgG) and suPAR levels. Patients with acute AIH had higher suPAR levels at diagnosis [12.5 (5.5) vs. 6 (1.8) ng/mL, p=0.01], while positive correlation was found between baseline suPAR and AST (r=0.705, p=0.023). Five patients achieved early complete biochemical response (eCBR). No significant difference was found between patients with and without eCBR regarding baseline suPAR values [6.5 (5.8) vs. 8.1 (6.5) ng/ml, p=0.421), suPAR at first month of treatment [6.5 (3) vs. 5.5 (4.1), p=0.421] and fold changes of suPAR [1.2 (0.9) vs. 0.7 (0.5), p=0.222]. No correlation was found between suPAR levels at baseline and histological stage (r=0.206, p=0.625) or liver stiffness measurements with Fibroscan (r=0.658, p=0.108)

Conclusions: suPAR may serve as a marker for assessing biochemical activity in AIH. Expanding our dataset by including more patients for further analysis is imperative to clarify whether suPAR can aid in response and long-term outcome in AIH patients.

Keywords: suPAR, autoimmune hepatitis, disease activity

[Abstract:1806]

PREDICTIVE VALUE OF FATTY LIVER INDEX FOR LONG-TERM CARDIOVASCULAR EVENTS IN PATIENTS RECEIVING LIVER TRANSPLANTATION: THE COLT STUDY

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Background and Aims: Cardiovascular disease is the leading cause of early mortality in orthotopic liver transplantation (OLT) patients. The fatty liver index (FLI) is strongly associated with carotid and coronary atherosclerosis, as well as cardiovascular mortality, surpassing traditional risk factors. Given the lack of data on FLI as a predictor of cardiovascular events in OLT recipients, we conducted a retrospective study to examine this topic.

Methods: We performed a multicentre retrospective analysis of adult OLT recipients who had regular follow-up visits every three to six months (or more frequently if necessary) from January 1995 to December 2020. The minimum follow-up period was two years post-intervention. Anamnestic, clinical, anthropometric and laboratory data were collected, and FLI was calculated for all patients.

Results: A total of 110 eligible patients (median age 57 years [IQR: 50-62], 72.7% male) were followed for a median of 92.3 months (IQR: 45.7-172.4) post-OLT. During this period, 16 patients (14.5%) experienced at least one adverse cardiovascular event. ROC analysis identified a cut-off value of 66.0725 for predicting cardiovascular events after OLT, with 86.7% sensitivity and 63.7% specificity (68% vs. 31%; p = 0.001). Kaplan-Meier analysis showed that patients with FLI > 66 had significantly reduced cardiovascular event-free survival than those with FLI ≤ 66 (log-rank: 0.0008). Furthermore, multivariable Cox regression analysis demonstrated that FLI > 66 and pre-OLT smoking were independently associated with increased cardiovascular risk.

Conclusions: Our findings suggest that FLI > 66 and pre-OLT smoking predict cardiovascular risk in adult OLT recipients.

Keywords: fatty liver index, orthotopic liver transplantation, cardiovascular disease, myocardial infarction, stroke

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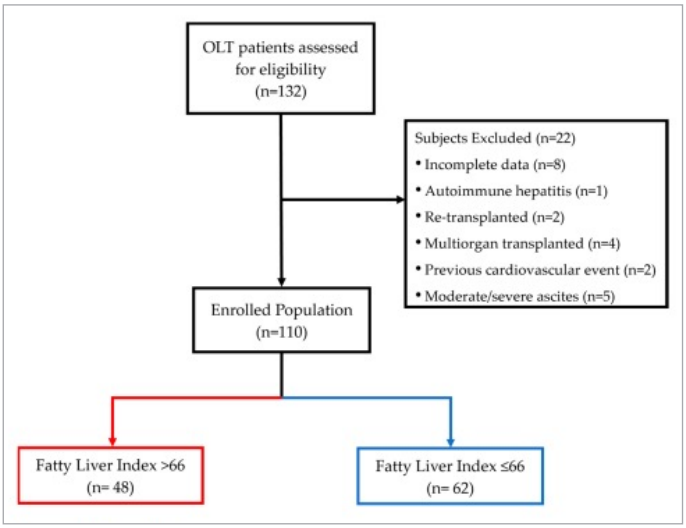

Figure 1. Study flow-chart.

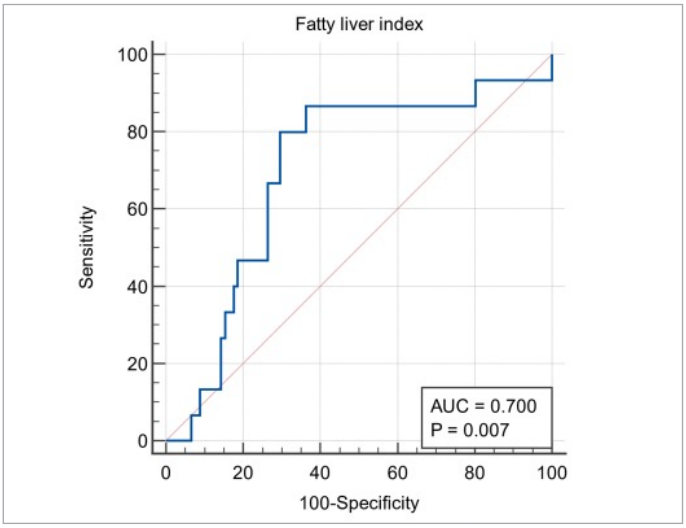

Figure 2. ROC curve for the definition of the fatty liver index cut-off value (sensitivity: 86.7%, specificity 63.7%).

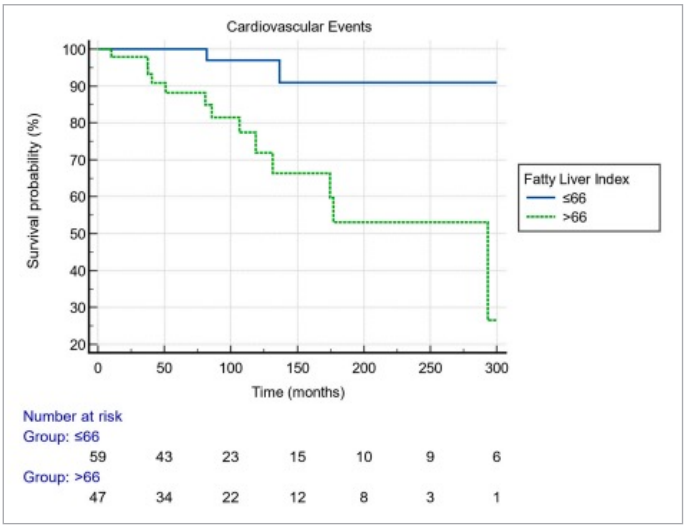

Figure 3. Kaplan–Meier survival analysis estimating the risk of cardiovascular events among OLT patients according to FLI.

Parameter	Baseline (n = 110)	Follow-Up (n = 110)	p
Age, years, median [IQR]	57.0 [50.0–62.0]	67.0 [61.0–72.0]	**<0.001**
Sex, n (%)			
M	80 (72.7)		
F	30 (27.3)		
FLI, median [IQR]	59.5 [38.3–82.3]	55.3 [33.4–79.1]	0.324
BMI, kg/m², median [IQR]	26.6 [23.5–28.4]	26.5 [23.9–30.0]	0.505
Obese, n (%)	17 (16.0)	18 (16.4)	*0.098*
Overweight, n (%)	50 (45.5)	55 (55.0)	0.137
Waist circumference, cm, median [IQR]	103.0 [90.0–113.6]	100.0 [92.0–115.0]	0.893
Impaired fast glucose, n (%)	7 (6.6)	5 (4.5)	0.553
Diabetes, n (%)	15 (14.2)	43 (39.1)	**0.001**
Hypertension, n (%)	16 (14.5)	79 (71.8)	**<0.001**
Total cholesterol, mg/dL, median [IQR]	123.5 [105.0–165.5]	192.5 [160.0–225.0]	**<0.001**
LDL, mg/dL, median [IQR]	86.5 [66.0–105.0]	128.0 [100.0–155.0]	**<0.001**
HDL, mg/dL, median [IQR]	33.5 [28.0–44.0]	48.0 [39.0–59.5]	**<0.001**
Triglycerides, mg/dL, median [IQR]	89.0 [71.0–118.0]	123.0 [86.0–167.0]	**<0.001**
Dyslipidemia, n (%)	10 (9.1)	68 (63)	**<0.001**
Metabolic Syndrome, n (%)	15 (13.6)	44 (40)	**<0.001**
GGT, U/L, median [IQR]	57.5 [42.0–84.0]	28.5 [17.5–53.0]	**<0.001**
Smoking, n (%)	34 (32.1)	13 (11.8)	**0.0002**
Alcohol abuse, n (%)	24 (21.8)	2 (1.8)	**<0.001**
eGFR, mL/min/m², median [IQR]	91.9 [76.0–103.8]	69.2 [55.3–90.4]	**<0.001**

OLT: orthotopic liver transplantation; IQR: interquartile range; FLI: fatty liver index; BMI: body mass index; GGT: γ-glutamyltransferase; eGFR: estimated glomerular filtration rate.

Table 1. Pre- and post-OLT characteristics of the study sample.

Parameter	Overall (n = 110)	FLI ≤ 66 (n = 62)	FLI > 66 (n = 48)	p
Age, years, median [IQR]	57.0 [50.0–62.0]	56.5 [48.0–63.0]	57.0 [52.0–60.0]	0.845
Sex, n (%)				
M	80 (72.7)	41 (66.1)	39 (81.3)	*0.079*
F	30 (27.3)	21 (33.9)	9 (18.8)	
Family history of CVD, n (%)	10 (9.3)	3 (4.8)	7 (14.6)	0.095
Family history of diabetes, n (%)	12 (11.2)	3 (4.8)	9 (18.8)	0.144
Personal history of MI, n (%)	2 (1.8)	0	2 (4.2)	0.106
Personal history of Stroke, n (%)	3 (2.7)	2 (3.2)	1 (2.1)	0.716
FLI, median [IQR]	59.5 [38.3–82.3]	41 [26.3–56.6]	89.0 [74.6–95.3]	**<0.001**
BMI, kg/m², median [IQR]	26.6 [23.5–28.4]	24.5 [22.7–26.0]	27.8 [27.0–31.8]	**<0.001**
Obese, n (%)	17 (16.0)	0	17 (35.4)	**<0.001**
Overweight, n (%)	50 (45.5)	21 (33.9)	29 (60.4)	**0.008**
Waist circumference, cm, median [IQR]	103.0 [90.0–113.6]	92.0 [87.0–100.0]	116 [107.8–128.0]	**<0.001**
Impaired fast glucose, n (%)	7 (6.6)	4 (6.5)	3 (6.3)	0.935
Diabetes, n (%)	15 (14.2)	9 (14.5)	6 (12.5)	0.716
Hypertension, n (%)	16 (14.5)	10 (16.1)	6 (12.5)	0.594
Total cholesterol, mg/dL, median [IQR]	123.5 [105.0–165.5]	119.0 [103.0–152.0]	142.0 [116.8–185.8]	**0.032**
LDL, mg/dL, median [IQR]	86.5 [66.0–105.0]	76.0 [58.5–100.3]	99.0 [72.3–119.8]	*0.086*
HDL, mg/dL, median [IQR]	33.5 [28.0–44.0]	33.0 [28.0–36.8]	36.0 [25.8–47.0]	0.482
Triglycerides, mg/dL, median [IQR]	89.0 [71.0–118.0]	88.5 [69.0–102.0]	88.5 [70.0–142.0]	0.146
Dyslipidemia, n (%)	10 (9.1)	5 (8.1)	5 (10.4)	0.672
Metabolic Syndrome, n (%)	15 (14.0)	5 (8.1)	10 (20.8)	*0.068*
GGT, U/L, median [IQR]	57.5 [42.0–84.0]	51.0 [32.0–70.0]	63.5 [55.0–89.0]	**0.004**
Smoking, n (%)	34 (32.1)	21 (33.9)	13 (27.1)	0.387
Alcohol abuse, n (%)	24 (21.8)	16 (25.8)	8 (16.7)	0.252
eGFR, mL/min/m², median [IQR]	91.9 [76.0–103.8]	91.0 [81.0–104.0]	93.7 [73.3–102.5]	0.668

OLT: orthotopic liver transplantation; IQR: interquartile range; CVD: cardiovascular disease; MI: myocardial infraction; FLI: fatty liver index; BMI: body mass index; GGT: γ-glutamyltransferase; eGFR: estimated glomerular filtration rate.

Table 2. Pre-OLT characteristics of the study sample categorized using the fatty liver index.

Parameter	Overall (n = 110)	FLI ≤ 66 (n = 62)	FLI > 66 (n = 48)	p
Age, years, median [IQR]	67.0 [61.0–72.0]	67.0 [60.8–71.3]	67.5 [62.5–73.5]	0.490
Follow-up months, median [IQR]	92.3 [45.6–172.4]	89.4 [45.7–172.4]	112.5 [54.7–214.8]	0.357
FLI, median [IQR]	55.3 [33.4–79.1]	41.8 [26.5–63.1]	75.0 [48.7–87.6]	**<0.001**
BMI, kg/m², median [IQR]	26.5 [23.9–30.0]	24.9 [23.4–27.4]	28.5 [26.0–32.9]	**<0.001**
Obese, n (%)	18 (16.4)	0	18 (37.5)	**<0.001**
Overweight, n (%)	55 (55.0)	25 (40.3)	30 (62.5)	**0.022**
Waist circumference, cm, median [IQR]	100.0 [92.0–115.0]	95.0 [88.0–100.0]	113.0 [103.5–125.5]	**<0.001**
Impaired fast glucose, n (%)	5 (4.5)	3 (4.8)	2 (4.2)	0.867
Diabetes, n (%)	43 (39.1)	22 (35.5)	21 (43.8)	0.380
Hypertension, n (%)	79 (71.8)	46 (74.2)	33 (68.8)	0.531
Total cholesterol, mg/dL, median [IQR]	192.5 [160.0–225.0]	190.0 [160.0–225.0]	194.0 [153.0–225.0]	0.939
LDL, mg/dL, median [IQR]	128.0 [100.0–155.0]	128.0 [97.0–151.0]	128.0 [106.0–156.0]	0.662
HDL, mg/dL, median [IQR]	48.0 [39.0–59.5]	49.0 [41.0–62.5]	46.0 [34.5–58.5]	0.144
Triglycerides, mg/dL, median [IQR]	123.0 [86.0–167.0]	112.0 [81.0–158.0]	129.5 [96.0–182.0]	0.128
Dyslipidemia, n (%)	68 (63)	36 (58.1)	32 (66.7)	0.336
Metabolic Syndrome, n (%)	44 (41.1)	19 (30.6)	25 (52.1)	**0.039**
GGT, U/L, median [IQR]	28.5 [17.5–53.0]	29.0 [16.0–53.0]	28.0 [18.0–46.0]	0.763
Smoking, n (%)	13 (11.8)	8 (12.9)	5 (10.4)	0.690
Alcohol abuse, n (%)	2 (1.8)	0	2 (4.2)	0.106
eGFR, mL/min/m², median [IQR]	69.2 [55.3–90.4]	73.1 [60.2–91.9]	65.5 [51.5–80.4]	*0.078*

OLT: orthotopic liver transplantation; IQR: interquartile range; FLI: fatty liver index; BMI: body mass index; GGT: γ-glutamyltransferase; eGFR: estimated glomerular filtration rate.

Table 3. Post-OLT characteristics of the study sample categorized using the fatty liver index.

DOI: 10.12890/2024_V11Sup1

Parameter	Overall (n = 110)	FLI ≤ 66 (n = 62)	FLI > 66 (n = 48)	p
Incident fatal and non-fatal MI, n (%)	16 (14.5)	3 (4.8)	13 (27.1)	0.001
Incident fatal and non-fatal Stroke, n (%)	3 (2.8)	0	3 (6.3)	0.047
Cardiovascular death, n (%)	2 (2.2)	1 (1.6)	1 (2.1)	0.739
Overall incident CV events, n (%)	16 (14.5)	3 (4.8)	13 (27.1)	0.001
Overall mortality, n (%)	5 (5.4)	2 (3.2)	3 (6.3)	0.663

MI: myocardial infarction; CV: cardiovascular.

Table 4. Post-OLT cardiovascular events and overall mortality in the study sample categorized using FLI.

	Univariable Analysis			
Parameter	HR	95% CI		p
Age	1.07	1.00	1.15	0.049
Sex				
M (ref)				
F		0.09	1.25	0.104
Family history of MI	1.59	0.70	3.61	0.267
Family history of diabetes	1.52	0.34	6.78	0.580
Personal history of MI	12.29	1.36	110.80	0.025
Personal history of Stroke	0.00	0.00	inf	0.960
Fatty liver index				
≤66	1			
>66	6.34	1.78	22.56	0.004
BMI	1.13	1.03	1.24	0.011
Waist circumference	1.05	1.02	1.08	0.002
Obese	5.02	1.38	18.32	0.015
Overweight	1.25	0.47	3.39	0.648
Impaired fast glucose	1.19	0.15	9.20	0.866
Diabetes	1.83	0.40	8.40	0.439
Hypertension	0.70	0.09	5.35	0.728
Total cholesterol	0.99	0.98	1.02	0.996
LDL	0.99	0.96	1.03	0.811
HDL	1.05	0.95	1.16	0.313
Triglycerides	0.99	0.99	1.01	0.976
Dyslipidemia	2.84	0.81	9.97	0.104
Metabolic Syndrome	0.48	0.06	3.65	0.480
GGT	0.99	0.98	1.01	0.729
Smoking	3.00	1.06	8.49	0.038
Alcohol Abuse	1.72	0.55	5.35	0.350
eGFR	1.01	0.98	1.04	0.482

MI: myocardial infraction; BMI: body mass index; GGT: γ-glutamyltransferase; eGFR: estimated glomerular filtration rate.

Table 5. Univariable Cox regression model.

	Multivariable Analysis			
Parameter	HR	95% CI		p
Age	1.06	0.97	1.15	0.185
Fatty Liver Index				
≤66	1			
>66	5.50	0.51	59.85	0.010
Smoking	3.20	1.01	10.12	0.048
Personal history of MI	3.04	0.31	30.17	0.343

MI myocardial infraction

Table 6. Multivariable Cox regression model.

[Abstract:1829]

ACUTE LIVER FAILURE IN PATIENTS WITH ANOREXIA NERVOSA: A CASE REPORT

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Anorexia nervosa (AN) is a psychiatric condition that can lead to medical complications. Liver damage is common, however, liver failure and hypoglycaemic coma is infrequent. A 25-year-old male with AN visited the Emergency Room because of an acute onset of lethargy. Physical examination showed a cachectic, unresponsive patient with signs of dehydration, mild arterial hypotension, and hypoglycaemia. Blood tests revealed alterations compatible with acute liver failure, negative for (for virus and lues), autoimmunity, toxicology and abdomino-pelvic CT scan. There were no previous infection symptoms, purging or consumption of meds, drugs, or mushrooms. He was transferred to the Intensive Care Unit. There, fluid therapy and enteral nutrition were initiated. Eventually, liver function parameters improved without any other complications. The physiopathology of liver damage in AN is unknown. Some theories are liver autophagy (which is significantly increased in patients with BMI <13), increased oxidative stress due to a lack of antioxidative oligoelements, liver glycogen depletion, and tissue hypoperfusion secondary to hypovolemia. Even if liver failure is usually mild, these patients require a multidisciplinary approach and ICU admission since this can lead to life-threatening complications. Usually, liver alterations improve with support therapies and well-planned nutrition to avoid refeeding syndrome.

Furuta S, et al. Anorexia nervosa with severe liver dysfuntions and subsequent critical complications. Internal Medicine, vol 38. 1999.

Bridet L, et al. Acute liver damage and anorexia nervosa: a case report. Turk J gastroenerology, 25. 2014.

Kheloufy M, et al. Liver autofagy in anorexia nervosa and acute liver injury. Biomed research international. 2014.

Keywords: liver failure, anorexia nervosa, hypoglycaemia, autophagy, liver damage, malnutrition.

[Abstract:1842]

AN UNUSUAL CAUSE OF ABDOMINAL PAIN: NUTCRACKER SYNDROME

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A 45-year-old woman with a history of pre-scleroderma. She consults for abdominal pain in the left iliac fossa for which she has already been assessed in gynaecology, with a normal ultrasound study.

For the last two months she refers pain in the hypogastrium, left iliac fossa and left lumbar region. She has had an isolated episode of diarrhoea with no pathological products. Occasionally she reports episodes of haematuria, and for the last two years she has had dyspareunia and dysmenorrhea. She denies weight loss or loss of appetite.

Abdominal examination reveals pain on palpation in the hypogastrium, left iliac fossa, flank and left hypochondrium. The rest of the physical examination is normal.

Laboratory tests show normal renal function, liver profile and C-reactive protein. The haemogram and erythrocyte

 DOI: 10.12890/2024_V11Sup1

sedimentation rate are also normal, and the antinuclear antibodies are negative. Urinalysis show no haematuria.
An abdomino-pelvic ultrasound excludes abdominal abnormalities. Given the persistence of the symptoms, an abdominal Doppler is requested, which shows the development of varicose veins in the left adnexa, with moderate compression of the left renal vein in the clamp.
The patient is referred to Cardiovascular Surgery to assess the placement of an intravascular stent.
Nutcracker syndrome is a vascular anomaly consisting in the compression of the left renal vein between the superior mesenteric artery and the aorta. Although haematuria is the most frequently reported symptom, it can also present abdominal or left flank pain, proteinuria, dyspareunia, dysmenorrhea and asthenia; as in the case of the patient described.

Keywords: *abdominal pain, haematuria, left renal vein*

[Abstract:1873]

PRIMARY BILIARY CIRRHOSIS-AUTOIMMUNE HEPATITIS OVERLAP SYNDROME: A NEW CASE

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Background: Primary biliary cirrhosis (PBC) and autoimmune hepatitis (AIH) are the two main immune-mediated liver diseases. PBC–AIH overlap syndrome is defined by the simultaneous or consecutive association of at least two of three diagnostic criteria usually recognized in both pathologies. This syndrome is thought to be rare. Its prevalence is of the order of 8-20% of all the CBP and HAI diagnosed as such. The optimal treatment is not yet well codified.
Observation: A 49-year-old female has presented for 2 years ocular and oral dryness associated with anorexia and weight loss. There was no jaundice nor pruritus. The diagnosis of Sjogren's syndrome was confirmed by objective signs of dryness and a characteristic salivary glands biopsy. Hepatic tests showed high levels of liver enzymes. The patient denied alcohol and drug consumption. Serological tests were negative for hepatitis A, B and C. Liver ultrasound was normal. Immunologic tests showed the presence of anti-mitochondrial antibodies (AMA M2 type, 1/1200) and anti-smooth muscle antibodies (ASMA). Antinuclear antibodies (ANA) were positive. Cryoglobulinemia came out negative. A liver biopsy confirmed the diagnosis of PBC, revealing stage 3 chronic hepatitis according to Ludwig and Scheuer's classification. The diagnosis of PBC associated to AIH was made. A CT-scan showed hepato-splenomegaly profound lymphadenopathy. Ursodeoxycholic acid (UDCA) associated with corticosteroids and Azathioprine induced a significant decrease in cholestasis and cytolysis within 3 months.
Conclusions: In our case of Overlap syndrome, combination of UDCA, corticosteroids and immunosuppressive treatment led to a significant decrease of biochemical cholestasis and cytolysis.

Keywords: *primary biliary cirrhosis, autoimmune hepatitis, overlap syndrome*

[Abstract:1886]

FROM HEPATITIS C TO HEPATOCELLULAR CARCINOMA: A SIMULTANEOUS DIAGNOSIS

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Introduction: Hepatocellular carcinoma (HCC) stands as the fourth leading cause of cancer-related deaths globally. Patients with chronic liver diseases, including cirrhosis, chronic hepatitis B/C or metabolic dysfunction-associated steatotic liver disease (MASLD) are at heightened risk for HCC and should be under surveillance in order to be diagnosed in its earlier stages and improve survival rate.
Case Presentation: A 53-year-old woman, with no significant medical history, presented to the Emergency Department (ED) reporting abdominal pain in the right hypochondrium along with nausea and vomiting, over the past month. Additionally, she mentioned early satiety, tiredness, anorexia and weight loss of approximately 10 kg over the same period. A globular, slightly depressible abdomen was noted, with an extensive collateral venous circulation and hepatomegaly. Abdominal ultrasound revealed multiple nodular areas which required further investigation upon hospitalization. Analytical data portrayed anaemia, hepatic cytolysis without hyperbilirubinemia and coagulopathy. Etiological studies unveiled hepatitis C and cirrhosis (Child-Pugh B), due to portal hypertension and oesophageal varices detected in upper digestive endoscopy. Abdomino-pelvic computed tomography favoured the hypothesis of HCC and a liver biopsy confirmed the suspected diagnosis. Due to the advanced stage of HCC, the recommendation was for best supportive care.
Discussion: Late diagnosis of HCC due to inadequate screening and surveillance in high-risk patients, compounded by the absence of early-stage symptoms results in a poor prognosis. Although surgical therapies allow for best long-term survival, most patients are ineligible due to the advanced extent of the tumour or underlying liver dysfunction at the time of diagnosis.

Keywords: *hepatocellular carcinoma, cirrhosis, hepatitis C*

 DOI: 10.12890/2024_V11Sup1

[Abstract:1905]

COMMUNITY-ACQUIRED *CLOSTRIDIOIDES DIFFICILE* INFECTION IN LOW-RISK POPULATION: A CASE REPORT

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Case Description: A 27-year-old woman was admitted in medical ward with fever, acute diarrhoea and diffuse abdominal pain. During the previous week she reported daily evacuations (up to 8-10 times) with non-bloody liquid faeces. Her past medical history was significant exclusively for irritable bowel syndrome (IBS) with predominant constipation. She reported ciprofloxacin intake for cystitis the week before the onset of diarrhoea. At admission, the patient presented with lower abdominal quadrants tenderness. Laboratory tests highlighted neutrophilia, C-reactive protein 11.4 mg/dL, faecal calprotectin x 10 ULN, albumin 3.5 g/dL. Abdomen ultrasound showed mild ascites, bowel wall thickening – predominantly of the descending colon and sigma – associated with inflammatory mesenteric lymphadenopathy.
Clinical Hypothesis: Differential diagnosis of colitis.
Diagnostic Pathways: First level microbiology tests on blood (Widal test, Citomegalovirus serology, culture) and on stool (parasitological test, bacterial culture) resulted negative. Immunological screening was normal. Considering the antibiotic exposure, *Clostridioides difficile* infection (CDI) was investigated by a two-step algorithm based on glutamate dehydrogenase (GDH) immunoassay and toxin A/B. Positive result of both tests confirmed the diagnosis. Vancomycin 125 mg QID for ten days was given. After 5 days, the diarrhoea resolved. At the same time, abdomen ultrasound showed disappearance of ascites and reduction in colon wall thickness.
Discussion and Learning Points: Community-acquired CDI is increasing. Exposure to retail food products and domestic animals has been postulated as potential sources of CDI, while antibiotic use could trigger the disease. It is necessary to maintain a high threshold of suspicion even in low-risk population.

Keywords: *Clostridioides difficile infection, colitis, acute diarrhoea*

[Abstract:1913]

THE MEDIAN ARCUATE LIGAMENT AS CAUSE OF ABDOMINAL ANGINA: A CASE REPORT

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A rare cause for abdominal angina is Dunbar syndrome, which involves extrinsic compression of the celiac artery by the median arcuate ligament. In this case report, we presented a 75-year-old Spanish male patient, ex-smoker with an accumulated index of 100 years/pack, with arterial hypertension, dyslipidaemia, cardioembolic ischemic stroke and peripheral vascular disease as medical past history. The patient suffered from chronic abdominal pain, located in the mesogastrium, predominantly postprandial, and occasional nausea and vomiting. This resulted in sitophobia and a 10 kg weight-loss in the recent years, having at the beginning of the evaluation a body mass index (BMI) of 14 kg/cm^2.
When it came to differential diagnosis, *H. pylori* infection was ruled out and a gastroscopy, a colonoscopy and a magnetic resonance enterography (MRE) were performed, showing findings within normal limits. Abdominal computerized tomography angiography (angio TC) showed a non-significant calcification of the proximal mesenteric artery and a stenosis of the ostium of the celiac artery, probably due to compression of the median arcuate ligament. An arteriography was performed, revealing a 63% celiac artery compression during expiration manoeuvres. There was no stenosis found during inspiration phase. These findings were compatible with an extrinsic compression of the artery leading to recurrent episodes of abdominal angina. Since this situation was not approachable by endovascular therapy, a surgical section of the arcuate ligament was performed.
Four months after the intervention, the patient has no postprandial abdominal pain and has progressively regained weight, reaching a BMI of 20 kg/cm^2.

Keywords: *abdominal pain, abdominal angina, Dunbar syndrome*

[Abstract:1942]

AN AUDIT OF ANTIBIOTIC COMPLIANCE FOR THE MANAGEMENT OF ACUTE CHOLECYSTITIS AT WATFORD GENERAL HOSPITAL

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Acute cholecystitis is a common surgical cause of abdominal pain in the United Kingdom. With many treated with antibiotics, this work aims to assess antibiotic compliance with the West Hertfordshire Teaching Hospitals NHS Trust guidelines.

DOI: 10.12890/2024_V11Sup1

Patients diagnosed with acute cholecystitis between March and September 2023 at Watford General Hospital were extracted from the electronic patient record system. Their demographics, aetiology of cholecystitis, mode of diagnosis, allergy status to penicillin and antibiotics administered were analysed and benchmarked with local guidelines (which recommend tazocin and a single gentamicin dose in those without penicillin allergies, and gentamicin, teicoplanin and metronidazole for penicillin-allergic patients).

136/155 (87.74%) had gallstones cholecystitis, with 129/136 (94.85%) diagnosed radiologically, whilst 19/155 (12.26%) had acalculous cholecystitis, 17/19 (89.47%) diagnosed radiologically. 131/155 (84.52%) reported no allergies, with the remaining 24 patients documenting an allergy. Overall, 67/155 (43.23%) were prescribed the correct antibiotic regime. 51/131 (38.93%) without allergies were correctly given tazocin and gentamicin, whilst 37/131 (28.24%) were given tazocin alone, and 30/131 (22.90%) received just co-amoxiclav. 16/24 (66.67%) with allergies were correctly given gentamicin, teicoplanin and metronidazole, with 4/24 (16.67%) prescribed teicoplanin, metronidazole and ciprofloxacin.

Antibiotic compliance with trust guidelines is sub-optimal, particularly in those without penicillin allergies. Possible explanations for this are: a weight is required to prescribe gentamicin, co-amoxiclav seems more appropriate for mild-moderate cholecystitis and co-amoxiclav is the choice of antibiotic for other intra-abdominal infections. As antibiotic compliance reduces complications and antimicrobial resistance, recommendations include discussing the findings with microbiology, and an educational campaign on documenting patients' weight.

Keywords: *antibiotic, compliance, cholecystitis, gallbladder, audit, abdominal pain*

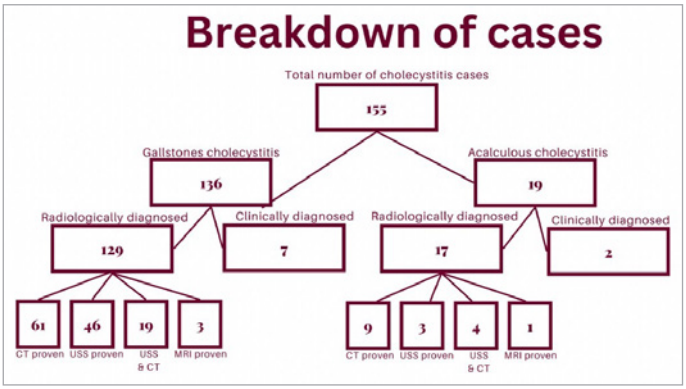

Figure 1. *Flowchart showing breakdown of cholecystitis cases.*

[Abstract:1948]

METABOLIC DYSFUNCTION-ASSOCIATED STEATOHEPATITIS VERSUS AUTOIMMUNE HEPATITIS - A DIAGNOSTIC CHALLENGE. ARE NMR-BASED METABOLOMICS USEFUL TO SET THE FINAL DIAGNOSIS?

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Summary: The differential diagnosis between autoimmune hepatitis (AIH) and metabolic dysfunction-associated steatohepatitis (MASH) can be challenging in clinical practice since patients with MASH may test positive for autoantibodies. Liver biopsy is helpful but interventional. Metabolomics are used to predict, diagnose, and monitor metabolic disorders, but altered metabolic signature has also been reported in diverse autoimmune diseases including AIH.

Purpose: We investigated the metabolic signature of patients with AIH and MASH and its significance as a diagnostic tool for differentiating the two entities.

Methods: Metabolites in plasma samples from 50 treatment-naïve patients with well-established AIH-type 1 and 26 biopsy-proven MASH patients positive for autoantibodies were determined by 1H-NMR spectroscopy.

Findings: The metabolic profile of AIH could sufficiently be discriminated from that of MASH patients (R2= 0.89, Q2= 0.70 and p<0.001). The key metabolites contributing to this difference were: the increased levels of one-carbon associated metabolites (methionine, histidine), the TCA cycle intermediate citrate and decreased levels of the gluconeogenesis associated amino acids (alanine, glycine, serine, proline, asparagine, valine), the ketogenic amino acid lysine and the TCA cycle intermediates. The pathway of phenylalanine/tyrosine/tryptophan biosynthesis had the greatest impact on separating AIH from MASH.

Conclusions: The metabolic profile of AIH patients differed significantly from that of patients with MASH. Given that NMR technology does not need much sample handling, is highly reproducible and with low cost, it could be used as an additional specific tool for the discrimination between AIH and MASH.

Keywords: *metabolomics, autoimmune, hepatitis*

 DOI: 10.12890/2024_V11Sup1

[Abstract:1973]

A CHALLENGING CASE OF B-CATENIN MUTATED MULTIPLE HEPATOCELLULAR ADENOMAS ASSOCIATED LONG-TERM STEROID ABUSE IN A NON-COMPETITIVE BODYBUILDER

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Since the beginning of the 1990's, an increasing number of reports of anabolic androgenic steroids (AAS) abuse in Europe and the USA by non-competitive athletes, particularly bodybuilders, has been published. Considering its increasing prevalence, the illicit use of ASS has become a matter of great concern.

Hepatocellular adenomas (HA) are rare benign epithelial tumours of the liver that occur predominantly in women. Although HA are generally related with oral contraceptives (OCP), they are also consequence of AAS abuse. Hepatic adenomatosis is usually defined to cases with multiple hepatocellular adenomas and may be more difficult to manage than a single or a few adenomas, due to multiple lesions.

We report a 29-year-old non-competitive male bodybuilder with multiple HA induced by AAS. The patient initially presented with tumour haemorrhage and was treated conservatively with selective hepatic artery embolization. Tru-cut biopsy revealed B-catenin mutated hepatocellular adenoma with dysplastic changes. Given the limited hepatic reserve, high malignancy risk and multiple adenomas, he was referred to a liver transplantation centre. However, following cessation of steroid use, regression of tumours was observed. Considering compensatory hypertrophy of the left lobe of the liver, right hepatectomy and radiofrequency ablation were able to perform. Now, the patient remains tumour free for 3 years.

Due to size and number of the lesions, surgical resection might be not amenable. Nevertheless, wait and to see if patient would have a chance of resection instead of liver transplantation should be considered in case of AAS induced HA.

Keywords: *Hepatocellular adenoma, anabolic androgenic steroids, B-catenin mutation, liver transplantation*

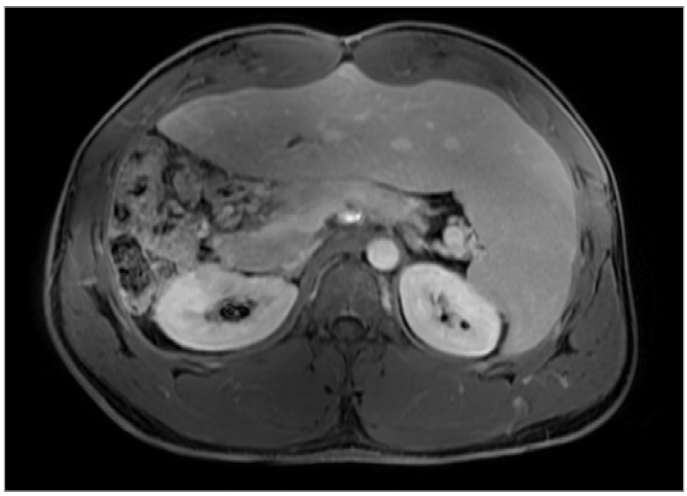

Figure 1. *Following Right Hepatectomy and Radiofrequency Ablation.*

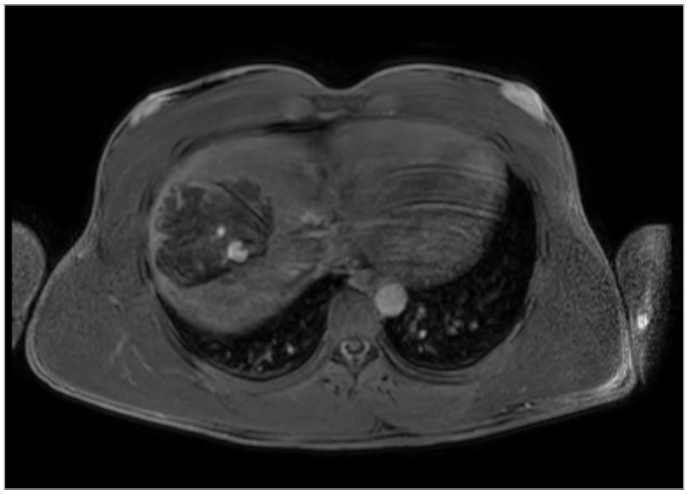

Figure 2. *Initial imaging at the time of diagnosis.*

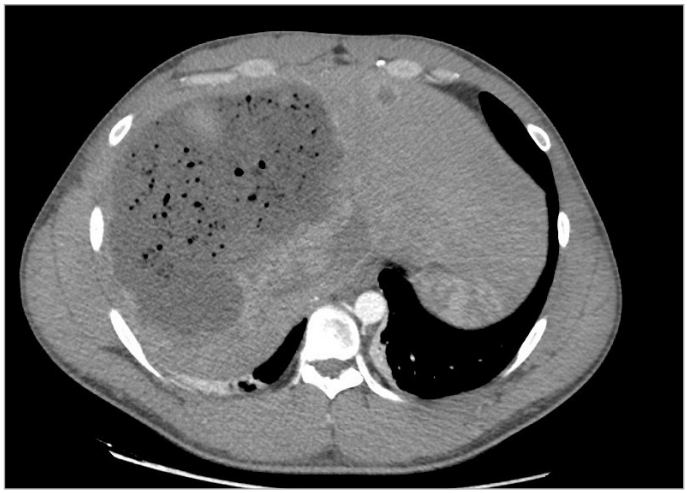

Figure 3. *Post-Embolization.*
The patient experienced severe right upper quadrant pain for 2 weeks following embolization procedure with swinging fevers and shivering. However, he did not develop any abscess, instead the initial air-filled areas inside lesion and subsequent evaluation to cystic formation had been observed.

DOI: 10.12890/2024_V11Sup1

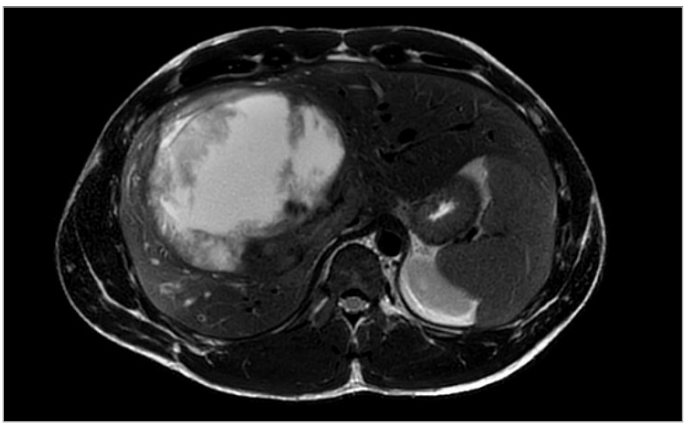

Figure 4. *Post-embolization.*
The patient experienced severe right upper quadrant pain for 2 weeks following embolization procedure with swinging fevers and shivering. However, he did not develop any abscess, instead the initial air-filled areas inside lesion and subsequent evaluation to cystic formation had been observed.

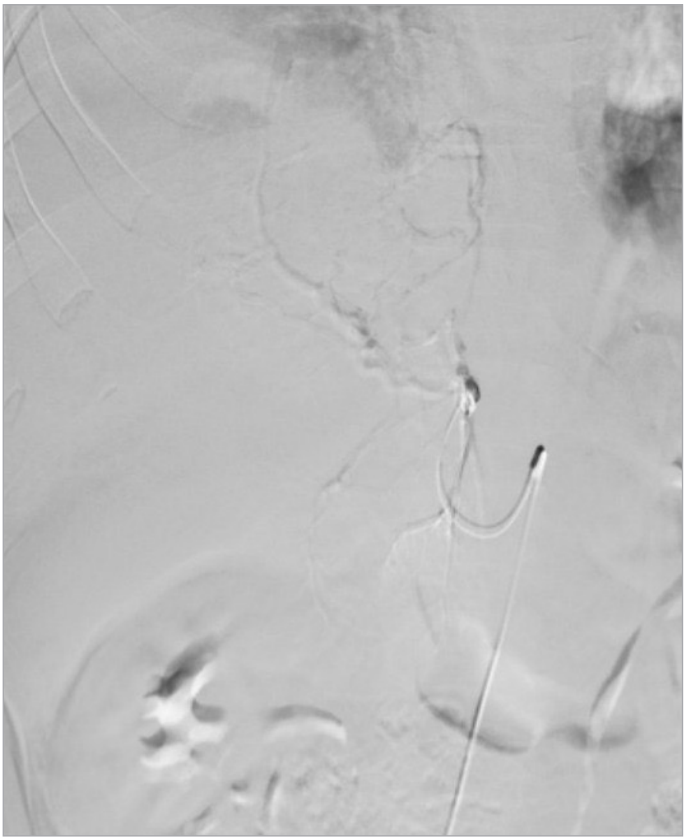

Figure 5. *Selective Hepatic Artery Embolization.*

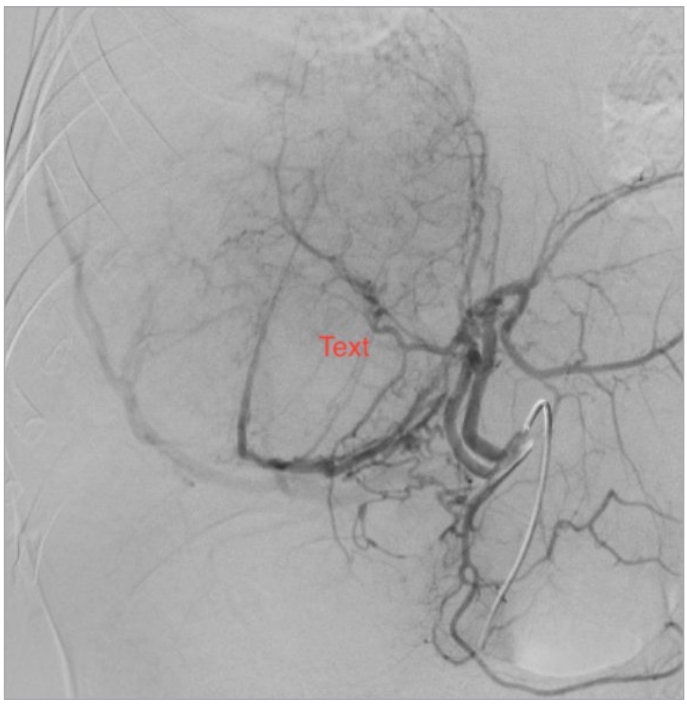

Figure 6. *Selective Hepatic Artery Embolization.*

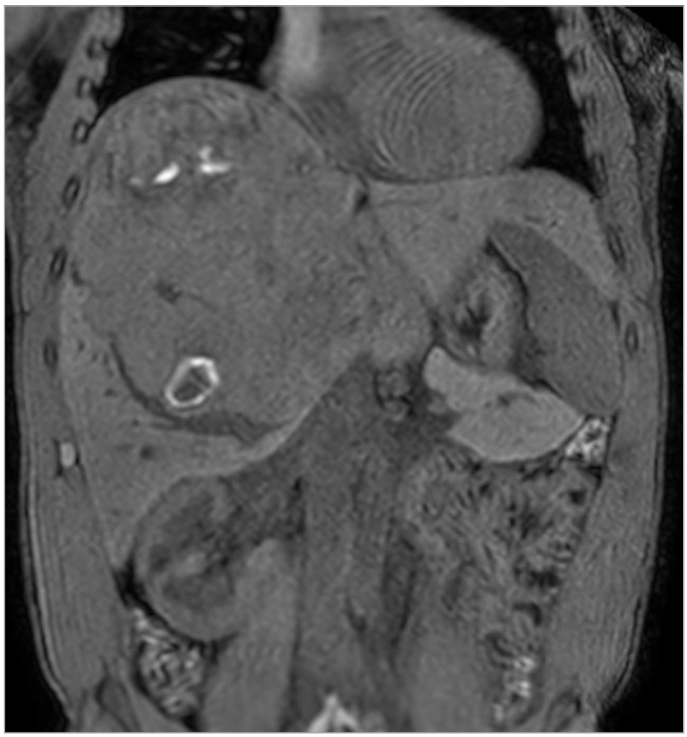

Figure 7. *Initial imaging at the time of diagnosis.*

DOI: 10.12890/2024_V11Sup1

[Abstract:2033]

13C-UREA BREATH TESTING (UBT) FOR *HELICOBACTER PYLORI* (HP) INFECTION. PRECISION MEDICINE BY NOVEL LASER-BASED (ISOMED) ANALYSIS VS. MASS-SPECTROMETRY (MS) AND INFRARED SPECTROMETRY (IRS)

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Background and Aims: Precise diagnosis of HP infection is crucial to meet clinical and patients' expectations, to prevent diagnostic and therapeutic mismanagement, and to contain costs. The "ISOMED" laser-based prototype is a novel technique for urea breath for HP. We designed an extensive clinical study using 2 13C-urea substrates, 3 methodologies and 4 equipments, including "ISOMED" in patients referred for suspected HP infection.

Methods: 170 patients, after baseline breath test sampling, ingested 75mg 13C-urea as either dissolved powder (Richen Medical Sciences, N=95, exetainer analysis by ISOMED© and Richen© MS) or liquid solution (Breath Quality-AB Analitica, N=75, IRS analysis by exetainers + HeliFAN© and bag + IRS-Richen-IR200©). A DOB value at T30 ≥4.0% was positive for HP infection.

Results: ISOMED and MS had 100% agreement and strong correlation (R2=0.995; p<0.00001) in 11 HP(+)ve and 84 HP(-)ve patients. HeliFAN© IRS yielded 17 HP(+)ve and 58 HP(-)ve patients with 96% agreement and strong correlation (R2=0.964; p<0.00001) with Richen© IRS. Upon repeat testing, we confirmed that inadequate breath collection in bags (500 mL) vs. exetainers vials (12 mL) accounted for minimal differences (around 1‰) across the 4.0% cut-off, i.e., 3 HP(+)ve and 1 HP(-)ve by Richen© IRS.

Conclusions: Compared to MS and IRS methodology, the novel ISOMED laser-based prototype yields accurate results, employs small breath samples and shorter analysis times (10 sec./single cycle measurement). This innovative equipment is promising for UBT diagnosis of HP infection.

Keywords: *Helicobacter pylori, ISOMED, 13C-urea breath test*

[Abstract:2037]

CYSTIC FIBROSIS DIAGNOSED IN AN ADULTHOOD WITH RECURRENT PANCREATITIS ATTACKS AND INFERTILITY

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Cystic fibrosis, an autosomal recessive monogenic disorder caused by a mutation in the cystic fibrosis transmembrane regulator (CFTR) gene on chromosome 7q31.2, is a multisystem disease affecting the respiratory epithelium, exocrine pancreas, intestines, hepatobiliary system, and exocrine sweat glands. Related morbidities include chronic pancreatitis and male infertility.

We here present a sibling with a history of CFTR mutation who was diagnosed with Cystic Fibrosis in adulthood, leading to recurrent pancreatitis attacks and infertility. A 36-year-old male patient with known diagnoses of Hodgkin lymphoma, chronic pancreatitis and Cystic Fibrosis was admitted with a 3-day history of abdominal pain. His medical history was also remarkable for primary infertility. Physical examination revealed muscular defence in the epigastric region. Amylase (1951 U/L), lipase (1838 U/L) and C-reactive protein (70 mg/L) levels were increased. Liver function tests were normal. Contrast-enhanced abdominal CT showed increased pancreatic duct diameter to 4 mm, indicating the whole picture as severe non-necrotizing oedematous pancreatitis. He had undergone genetic analysis in 2020 because of recurrent pancreatitis attacks and CFTR mutation in his brother. The report was consistent with the pathogenic c.3454G>C variant in the CFTR gene that was linked to autosomal recessive inheritance of cystic fibrosis and congenital bilateral absence of vas deferens. Our patient had a history of infertility without any contraceptive method and could not conceive a child.

In conclusion, the diagnosis of heterozygous cystic fibrosis in adulthood should be kept in mind when recurrent episodes of pancreatitis and male infertility are encountered.

Keywords: *cystic fibrosis, pancreatitis, infertility*

 DOI: 10.12890/2024_V11Sup1

[Abstract:2109]

CMV REACTIVATION AND PNEUMONIA BY *P. JIROVECII* IN A PATIENT ON IMMUNOSUPPRESSIVE THERAPY

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A 58 year-old man, HIV negative, was admitted to our department for the onset of a reactivation of Cytomegalovirus (1373 copies/mL). His past medical history is marked by liver cirrhosis of autoimmune origin on immunosuppressive therapy with Deltacortene. On physical examination he presented icteric mucous membranes associated to a severe ascitic effusion and a picture of hepatorenal insufficiency. He was treated with ganciclovir for twenty days. Ten days from the discharge (CMV negative), he went to the emergency room for the onset of severe respiratory failure with fever, dyspnoea, dry cough and chest pain for a few days. He performed chest CT scan with evidence of bilateral interstitial pneumonia. Because of the positivity of anti-Mycoplasma IgM and beta-D-glucan the empirical therapy was set up with ganciclovir and augmentin, in addition to urbason for his autoimmune disease. He suspended the antibiotic therapy in favour of trimethoprim/sulfometoxazole for probable *Pneumocystis jirovecii* pneumonia, that was confirmed by bronchoscopy with bronchoalveolar lavage. The therapy performed at the end of the cycle was trimethoprim / sulfamethoxazole for 21 days and then trimethoprim / sulfamethoxazole + calcium folinate in secondary prophylaxis regimen. At the Brotzu Transplant Center no indication for liver transplantation was given due to the presence of a preserved hepatic synthesis. The blood data also revealed the finding of hypogammaglobulinemia, for which Evusheld for prophylactic purposes was administered. In conclusion, antimicrobial prophylaxis must be carefully evaluated in patients with any kind of immunocompromise state to avoid the onset of opportunistic diseases with potential unfavourable evolution.

Keywords: *immunocompromise state, CMV reactivation, P. jirovecii, antimicrobial prophylaxis*

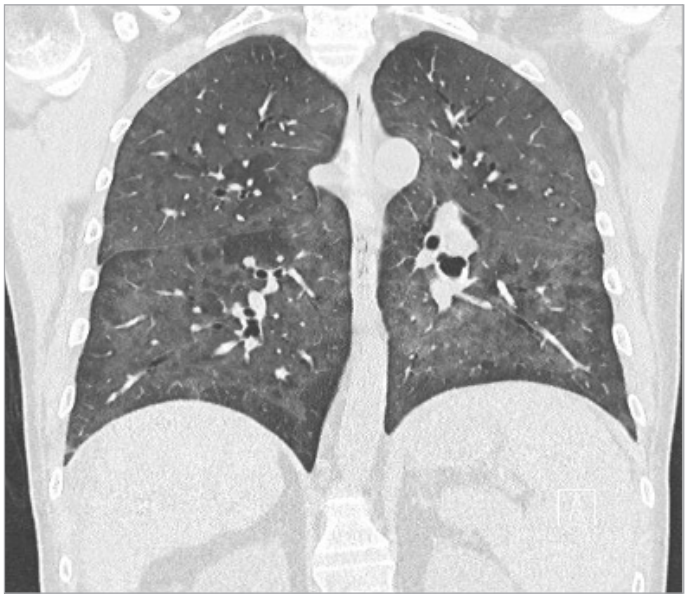

Figure 1. *Chest CT of interstitial pneumonia Pneumocystis jirovecii related.*
Chest CT revealing extensive alteration of the interstice due to the almost ubiquity of frosted glass distributed over the entire area pulmonary, in a probable context of interstitial pneumonia.

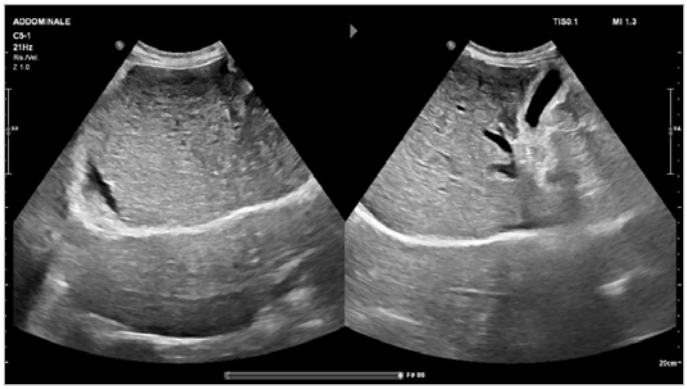

Figure 2. *Chronic advanced liver disease with cirrhotic evolution.*
Abdominal ultrasound documenting a fair amount of ascitic effusion; liver reduced in size and with non-homogeneous echostructure, irregular margins as if from chronic advanced liver disease with cirrhotic evolution.

[Abstract:2161]

SUDDEN ONSET PAIN IN THE RIGHT HYPOCHONDRIUM, WITH NORMAL LIVER ENZYMES

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Purpose: Right hypochondrium pain, especially in elderly, can rise important problems of differential diagnosis.

DOI: 10.12890/2024_V11Sup1

Methods: We present the case of a 74 years cholecistectomised woman (for gallstones), known with diabetes, hypertension and angina pectoris, who presented in Emergency Room for important right hypochondrium pain, with progressive enhancement in the last 2 weeks.

Physical examination revealed an overweight patient, with a sensitive upper abdomen at palpation, with hepatomegaly of increased consistence with a right lobe at 5 cm beneath the costal edge and left lobe at 8 cm beneath xiphoid appendage and unpalpable spleen.

Laboratory data revealed mild anaemia and leucocytosis, increased HbA1c, increased alkaline phosphatase and gamma glutamyl transpeptidase but no hepatocytolitic syndrome.

Imagistic investigations (abdominal ultrasound and cholangio-MRI) revealed a parenchymatous tumour inside the right hepatic lobe, with secondary hepatic lesions and with metastatic abdominal adenopathies.

Differential diagnosis was performed between: hepatocarcinoma, intrahepatic cholangiocarcinoma, benign hepatic tumours, metastatic tumours from breast, colon-rectal, lung, gastric, neuroendocrine tumours.

Cholangio-MRI, the high values of CA 19-9 and CA125 and histopathological results (from liver biopsy) confirmed the diagnosis of cholangiocarcinoma.

Conclusions: Intrahepatic cholangiocarcinoma is an invasive, silent tumour, with unspecific symptoms. Jaundice occurs only in case of local invasion in hepatic hilum and obstruction of the biliary ducts. The particularity of our case is the relative sudden onset of severe pain in the right hypochondrium without signs of neoplastic impregnation, without hepatocytolisis, without hepatic insufficiency, with normal bilirubin values.

Keywords: *cholangiocarcinoma, right hypochondrium pain, liver enzymes*

[Abstract:2174]

CROHN'S DISEASE CONVERSION RATE IN LONG- TERM MONITORING IN ULCERATIVE COLITIS PATIENTS WITH TOTAL COLLECTOMY: 10 YEARS OF SINGLE CENTER EXPERIENCE

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Ulcerative colitis (UI) is a disease characterized by recurrent episodes of chronic inflammation, limited to the mucosal layer of the colon. Indications for colectomy are emergency (perforation, toxic megacolon, uncontrolled bleeding) or elective (dysplasia/cancer developing in patients resistant to medical treatment or on the background of disease) surgical treatments are on the agenda. There are two different approaches as total proctocolectomy + IPAA or subtotal colectomy + end ileostomy +/- abdomenoperineal resection. Total proctocolectomy +IPAA has become standard treatment (1). Despite advances in the medical treatment of UK, approximately 20-35% of patients with UC ultimately require a colectomy. The diagnosis of preoperative Crohn's disease (CH) constitutes a relative contraindication to total colectomy +IPAA. The development of pouch CH after an IPAA for UK or indetermined colitis (HR) poses a serious problem (4,5). In patients who underwent total colectomy + IPAA; there is no complete standardization in the diagnosis of CH in the bag. In a recent high-volume meta-analysis regarding this, they identified 3 diagnostic criteria for the diagnosis of CH in patients with pouch (6,7).

- Presence of fistula
- Presence of structural disease in posh or pre-push ileum
- Pre-pouch ileitis

The incidence of postoperative recurrences is largely not well documented because long-term follow-up data are incomplete for patients thought to be initially ICU. Probably because total colectomy for IK is a curative treatment, post-operative follow-up may be related to not being done regularly. The aim of our study was to evaluate the incidence of postoperative CH recurrence in patients with colectomy.

Keywords: *Crohn's disease, ulcerative colitis, total colectomy*

[Abstract:2177]

VASCULITIS OF CENTRAL NERVOUS SYSTEM AS COMPLICATION OF CROHN'S DISEASE

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Background: Extra-digestive manifestations of Crohn's disease (CD) are described in a third of patients. Neurological involvement is reported sporadically but remains unusual. The central nervous system (CNS) is more frequently involved than the peripheral nervous system. We report the anecdotic case of a patient with CD complicated with cerebral vasculitis.

Case Presentation: A 39 years-old-man was referred to our department for a convulsive crisis. Five years ago, CD was suspected in this patient with a liquid chronic diarrhoea associated with deterioration of the general state. Endoscopic and histological examination concluded the diagnosis of terminal ileitis secondary to CD. The patient presented, two years later, a second flare of his disease. He was treated with corticoids and mesalazine with favourable evolution.

He presented recurrent convulsive crisis with aphasia concomitantly with CD's relapse. Cerebral magnetic resonance imaging showed a hyperintense right cortico-temporal lesion on T2-weighted images, not enhanced after gadolinium injection. These findings were compatible with the diagnosis of cerebral vasculitis associated with CD. He was treated with Phenobarbital

 DOI: 10.12890/2024_V11Sup1

and corticoid boli followed by a per os relay with prednisone and 6-mercaptopurine. This treatment improved considerably neurological and digestive systems.

Conclusions: Involvement of CNS during CD, exceptional, can be serious and lead to severe neurological after-effects. Diagnosis of cerebral vasculitis should be suspected in the presence of minor neurological or psychiatric signs.

Keywords: *Crohn's disease, vasculitis, central nervous system*

[Abstract:2178]

A MOLECULAR STUDY ADDRESSING THE ROLE OF PD1.3, IL28B RS12979860 AND PNPLA3 I148M POLYMORPHISMS IN AUTOIMMUNE HEPATITIS

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Purpose: Genetic background affects susceptibility, clinical phenotype, and prognosis in autoimmune hepatitis (AIH). Our aim was to investigate the significance of programmed cell death-1 rs11568821 (PD1.3), interleukin-28B (IL28B) rs12979860 and PNPLA3 I148M rs738409 C/G polymorphisms in AIH-patients.

Methods: 200 AIH-patients followed in our Centre were evaluated while 100 healthy subjects served as controls. Genotyping was performed with in-house allelic discrimination End-Point PCR.

Findings: PD1.3/A was not associated with susceptibility to AIH (36/200, 18% in AIH patients vs. 28/100 in controls, p=0.065). IL28B rs12979860 genotype distribution was CC 79/200 (39.5%), TT 36/200 (18%) and CT 85/200 (42.5%), in similar rates with healthy controls (p = 0.878), with no differences found regarding presence of steatosis/steatohepatitis, inflammatory activity and fibrosis stage. CC homozygotes patients achieved treatment withdrawal in significantly higher rates (p=0.02) irrespective of steatosis/steatohepatitis.

PNPLA3 I148M variant was present in 95/200 (47.5%) AIH patients compared to 47/100 (47%) healthy controls (p=1.000). GG/CG compared to CC genotypes were more likely to suffer from at least one metabolic risk factor (p=0.038) and present with decompensated cirrhosis (p=0.038).

Steatosis/steatohepatitis, inflammation grade and fibrosis were not associated with PNPLA3 genotype. GG homozygosity corelated with reduced survival free of decompensation (p=0.006), cirrhotic events (p=0.001) and liver related death/ transplantation (p=0.011).

Conclusions: In our AIH patients, IL28B rs12979860 CC genotype was associated with complete treatment withdrawal implying its use as a surrogate marker for treatment cessation. PNPLA3 I148M variant was correlated with diminished survival, suggesting its role as a new AIH biomarker for disease progression risk.

Keywords: *autoimmune hepatitis, SNPs, outcome*

[Abstract:2254]

MAFLD PROGRESSION: A CASE REPORT

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Summary: MALFD is a condition characterized by the presence of hepatic steatosis associated with type 2 diabetes and overweight/ obesity, regardless of alcohol intake or the exclusion of other chronic liver disease etiologist. These patients can progress to NASH and eventually cirrhosis.

Purpose: To present a case report on MAFLD and its progression.

Methods: Case report.

Findings: 44-year-old woman, with history of hypertension and cholecystectomy due to gallstone disease, was sent to the emergency department due to elevated transaminases in routine analysis (≥5 normal upper limit). Was recently diagnosed with diabetes and dyslipidaemia. On examination, liver edge was palpable 4 fingers below the costal level, without a palpable spleen. Ultrasound showed hepatic steatosis. Viral infections, autoimmune pathology and iron overload were ruled out. Cholangio-MRI showed signs of hepatic steatosis, no changes in the bile ducts and a doppler of liver vessels had no signs of portal hypertension. Finally, liver biopsy showed diffuse steatosis, without fibrosis. After 7 years of follow-up, weight loss and dyslipidaemia control were not achieved. The fibroscan performed then showed advanced F3 fibrosis and S3 steatosis. She had been recently diagnosed with hypothyroidism and referred for bariatric surgery.

Discussion and Learning Points: It's extremely important to control vascular risk factors, such as obesity, in patients with MAFLD in an attempt to halt its progression to cirrhosis. The association of MAFLD with other diseases such as polycystic ovary syndrome, hypothyroidism and obstructive sleep apnoea syndrome has been documented, so we must be aware of its appearance.

Keywords: *MAFLD, NASH, cirrhosis*

 DOI: 10.12890/2024_V11Sup1

[Abstract:2281]

FATIGUE - A KEY SYMPTOM IN A CHALLENGING CASE

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Background: Fatigue may be a symptom of almost any medical condition and became quite challenging being one of the five most common COVID-19 symptoms since the beginning of the pandemic.

Case Presentation: A 46-year-old man was admitted on May 2020 to emergency department (ED) with complaints of pronounced fatigue, night sweats, loss of appetite. Six days ago, after hard physical work, he felt unwell. Sore throat, low-grade fever and body aches were the symptoms that made him fear COVID-19 and he started taking paracetamol. On arrival to the ED, vital signs included heart rate of 85 bpm, BP of 120/70 mmHg, RR of 18 rpm, and oxygen saturation of 98% on room air, temperature 36.6°C. Lab test showed: SARS-CoV-2 PCR negative, fibrinogen 1,84 g/L; prothrombin 34%; D-dimer 7600 ng/ml, CRP 11 mg/dL, total bilirubin 92 mcmol/L, AST 3792 IU/L, ALT 8009 IU/L. After many discussions with the patient and his relatives, we found out that he was taking paracetamol 500 mg - 24 tablets/96 hours. Based on the above-mentioned clinical picture, biochemical findings, and radiological evidence of hepatomegaly along with peri-portal and gall bladder wall oedema, a diagnosis of drug-induced liver injury due to acetaminophen overdose was made and the treatment with N-Acetyl-cysteine antidote was started (25.5 g in 20 hours). Improvement of biochemistry markers was obtained after two days, being normalized after two months.

Conclusions: Identification of critically ill patients in the ED due to uncontrolled acetaminophen ingestion during the COVID-19 pandemic seems to be a new challenge for clinicians.

Keywords: *acetaminophen, hepatotoxicity, N-acetyl-cysteine*

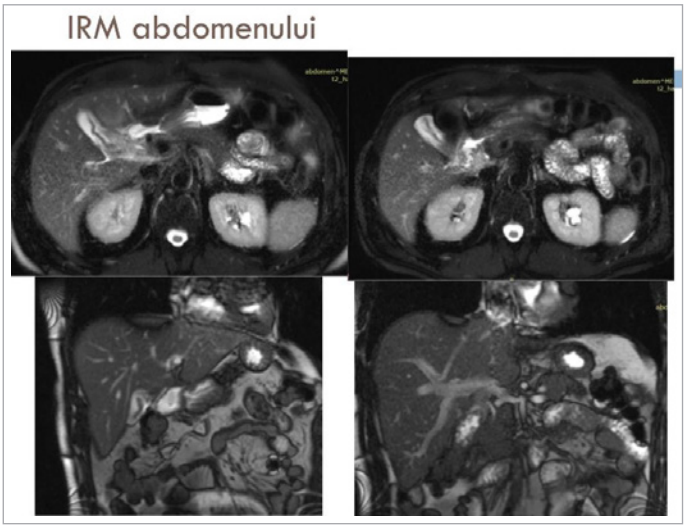

Figure 1. *MRI of the abdomen.*

[Abstract:2309]

RECURRENT ACUTE PANCREATITIS DURING PREGNANCY

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Case Description: A 21-year-old,woman transferred from gynaecological service, two days after caesarean section. Her medical history was remarkable with first pancreatitis at 23 weeks, second pancreatitis at 32 weeks and third was 36-week pregnancy (few days ago). There was no history of pancreatitis attacks before pregnancy, no medication or alcohol use was present. The patient's vital signs were stable. Laboratory tests revealed amylase: 571 U/L (28-100 U/L), lipase: 852 U/L (13-60 U/L), CRP: 80 mg/l (0-5), WBC: 14500 with normal cholestasis enzymes and bilirubin levels. BISAP score was 0. The patient was diagnosed with recurrent acute pancreatitis and closely monitored in our internal medicine service.

Clinical Hypothesis: Recurrent acute pancreatitis can be observed without any biliary pathology or dyslipidaemia during pregnancy.

Diagnostic Pathways: Abdominal ultrasound, upper abdominal MRI, and MRCP imaging showed oedema in the peripancreatic area without detecting any biliary pathology. Triglyceride, calcium, Ig-G4 values were within normal ranges. Genetic analysis for hereditary pancreatitis (SPINK-1 gene) were negative. The patient revealed no recurrence of pancreatitis attacks in post-pregnancy follow-up.

Discussion and Learning Points: Recurrent acute pancreatitis during pregnancy is a very rare condition, usually associated with biliary conditions. Due to the potential risks for both maternal and foetal health, its diagnosis, monitoring, and treatment require special attention. Changes in bile content and gallbladder contractility during pregnancy increase susceptibility to gallstone and biliary sludge formation. In the last trimester, alterations in bile content occur due to increased oestrogen levels, decreased motility from heightened progesterone, and an increase in residual bile volume. These factors contribute to the development of cholesterol crystals and, over time, gallstones. Acute pancreatitis should be considered in pregnant women experiencing a sudden onset of severe epigastric pain.

Keywords: *acute pancreatitis, pregnancy, epigastric pain*

 DOI: 10.12890/2024_V11Sup1

[Abstract:2334]

BILE CAST NEPHROPATHY: AN IMPORTANT BILIARY CULPRIT OF KIDNEY INJURY "CORTICOSENSITIVE" IN ALCOHOLIC HEPATITIS

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Background: Acute kidney injury (AKI) is a dreaded and fatal complication, presenting a diagnostic challenge in cirrhotic patients. Bile cast nephropathy is an often-ignored cause of AKI in the setting of jaundice.

Case Presentation: We report the case of a 47-year-old man, with no past medical history, who presented with confusion, dizziness, diffuse jaundice, oligoanuria and oedema. The family admitted an acute alcohol over intake recently and a daily alcohol intake for more than ten years. Lab results were notable for severe cholestasi, acute on chronic liver failure and AKI. An extensive workup for metabolic, autoimmune, and viral causes of hepatitis was negative. The patient was diagnosed with alcoholic hepatitis in a cirrhotic liver complicated with hepatic encephalopathy and gastrointestinal bleeding. Thus, he was treated with albumin, antibiotics, K vitamin, lactulose, sandostatine then ligation of oesophageal varices. He was maintained in corticosteroids for acute hepatitis over four months with unexpected good response. The AKI was related to acute tubular necrosis in connection with bile cast nephropathy. The patient required haemodialysis for the first two weeks before showing a response to corticosteroids with the reduction of bilirubin toward baseline over time. Currently, he is waiting for liver transplantation after 6 months of Alcoholic withdrawal with normal renal function.

Conclusions: Bile cast nephropathy may often be overlooked given the scarcity of kidney biopsy in this particular clinical setting. A timely diagnosis of the condition especially decompensated alcohol cirrhosis and prompt initiation of corticosteroids can lead to a favourable clinical response.

Keywords: *bile cast nephropathy, acute kidney injury, alcohol hepatitis, corticoids*

[Abstract:2359]

SAFETY AND EFFICACY OF DIRECT ANTIVIRAL AGENTS FOR HEPATITIS C IN PATIENTS WITH MALIGNANCIES OTHER THAN LIVER CANCER: A CASE SERIES

Fabian Patauner[1], Maria Stanzione[3], Gianfranca Stornaiuolo[3], Veronica Martone[2], Roberta Palladino[3], Nicola Coppola[3], Emanuele Durante Mangoni[1], Rosa Zampino[2]

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Background: Direct-acting antivirals (DAA) are the current standard of care for chronic hepatitis C. Oncologic patients remain among the most difficult-to-treat subgroups of hepatitis C virus (HCV)-infected patients due to their clinical frailty and complex therapeutic protocols received.

Methods: We retrospectively collected and analysed clinical data of 30 consecutive patients treated with DAA, between 2015 and 2022, for chronic HCV infection in the context of oncologic disease.

Results: Most patients were females (63.3%), median age was 67 years, HCV genotype 1 was prevalent (60%), and median HCV RNA levels were 2.2×10^6 IU/mL. The most common malignancy was breast cancer (37%), and the chief oncologic drugs co-administered with DAAs were tamoxifen, platinum derivatives, cyclophosphamide, paclitaxel, rituximab and doxorubicin. Overall, 50% of patients had chronic hepatitis. A total of 76.7% underwent a sofosbuvir-based treatment. Sustained virological response 12 weeks after the end of therapy (SVR12) was reached in all patients. After SVR12, two patients died. DAA treatment was well tolerated; no patients had to stop DAA treatment or showed any adverse event or drug-drug interaction specifically attributable to DAAs.

Conclusions: DAA treatment should be promptly offered to oncologic patients with chronic hepatitis C in order to achieve aminotransferase normalization and viremia control, making antineoplastic therapy feasible and safe.

Keywords: *HCV, DAA, cancer, chemotherapy, radiotherapy, cirrhosis*

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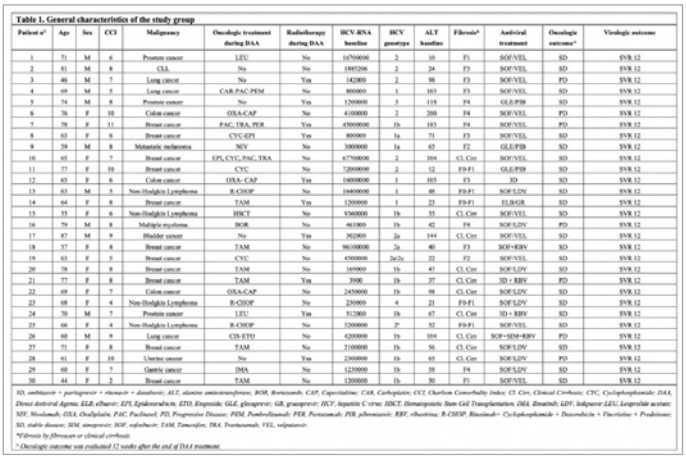

Table 1. General characteristics of the study group.

Table 1. *General characteristics of the study group.*

Keywords: *acute hepatitis, alcoholic hepatitis, liver failure*

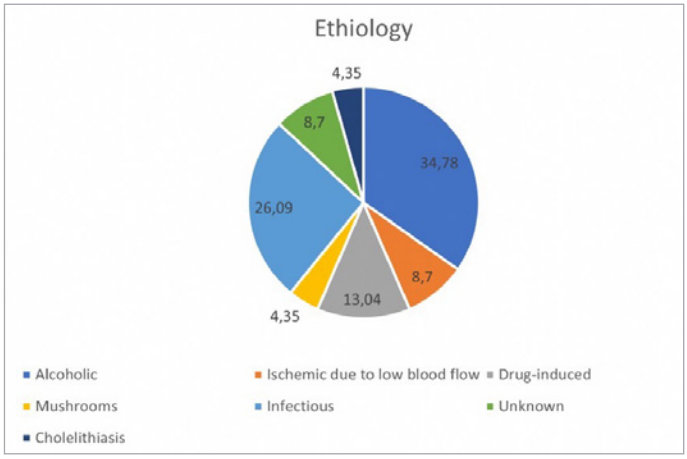

Figure 1. *Global aetiology of acute hepatitis.*

[Abstract:2382]

EPIDEMIOLOGIC REVIEW AND FOLLOW-UP PF ACUTE HEPATITIS WITH ADMISSION AT A SECOND LEVEL CENTER

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Objectives: To describe the epidemiological characteristics of patients admitted with a diagnosis of acute hepatitis, as well as whether they underwent subsequent follow-up and short-term readmissions.

Methods: A descriptive, cross-sectional study of patients admitted to a second-level hospital from January 1, 2022 to December 31, 2022 whose primary or secondary diagnosis is "Acute Hepatitis" was performed.

Results: The total number of patients with a diagnosis of acute hepatitis was 23, of whom 65.2% were men and 34.8% women, with a mean age of 52 years although when segmented by sex the mean age in women was markedly higher, 74 years, while in men it was 41 years. The most frequent aetiology was alcoholic (34.8%) in the total sample; however, in women the most frequent aetiologies were infectious, drug-induced and ischemic due to low cardiac output, while in men alcoholic persisted as the main cause (46.7%) (Figure 1 and Table 1). Regarding the subsequent follow-up of the patients at discharge, 70% were reviewed in subsequent consultations. After three months of follow-up, there were no readmissions in any of the cases (Table 2).

Conclusions: 1. The most frequent cause of hepatitis is alcoholic hepatitis, and it is more prevalent in males.

2. The mean age of hepatitis was 52 years, although in women it seems to occur at a higher age, which is probably related to the aetiology in this group.

3. Patients with alcoholic hepatitis have the worst subsequent follow-up, although despite this they do not present short-term readmissions.

Segmentation by gender in terms of age and etiology

		Sex					
		Female		Male		Total	
		N	%	N	%	N	%
Age group	<19	0	0,0%	3	20,0%	3	13,0%
	20-39	0	0,0%	4	26,7%	4	17,4%
	40-59	3	37,5%	5	33,3%	8	34,8%
	>59	5	62,5%	3	20,0%	8	34,8%
	Total	8	100,0%	15	100,0%	23	100,0%
Etiology	Alcoholic	1	12,5%	7	46,7%	8	34,8%
	Ischemic due to low blood flow	2	25,0%	0	0,0%	2	8,7%
	Drug-induced	2	25,0%	1	6,7%	3	13,0%
	Mushrooms	0	0,0%	1	6,7%	1	4,3%
	Infectious	2	25,0%	4	26,7%	6	26,1%
	Unknown	0	0,0%	2	13,3%	2	8,7%
	Cholelithiasis	1	12,5%	0	0,0%	1	4,3%
	Total	8	100,0%	15	100,0%	23	100,0%

Table 1. *Segmentation by gender in terms of age and aetiology.*

Follow-up in consultations

		Follow-up in consultation			
		No		Yes	
		N	%	N	%
Etiology	Alcoholic	5	62,5%	3	37,5%
	Ischemic due to low blood flow	1	50,0%	1	50,0%
	Drug-induced	0	0,0%	3	100,0%
	Mushrooms	0	0,0%	1	100,0%
	Infectious	1	16,7%	5	83,3%
	Unknown	0	0,0%	2	100,0%
	Cholelithiasis	0	0,0%	1	100,0%
	Total	7	30,4%	16	69,6%

Table 2. *Follow-up in consultations.*

DOI: 10.12890/2024_V11Sup1

[Abstract:2420]

COMPARISON OF ALBUMIN / ALKALINE PHOSPHATASE AND GAMA GLUTAMYL TRANSFERASE / ALBUMIN RATIOS WITH FIBROSIS INDEXES IN PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE

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Objectives: It is aimed to compare albumin-to-alkaline phosphatase ratio (AAPR) and gamma glutamyl transferase - albumin ratio with fibrosis scoring indices used in the diagnosis of non-alcoholic fatty liver disease and to evaluate new practical scoring systems for clinically predicting risk groups in the early stages of NAFLD.

Materials and Methods: Study was planned as a single-centre, retrospective cross-sectional study. Patients were detected to have hepatosteatosis on ultrasonography constitute the study group. Demographic and biochemical parameters of the patients were recorded. AAPR, GGT/ALB ratio, FIB-4, AST/PLT ratio index (APRI), AST/ALT were calculated.

Results: Negative correlations were found between AAPR and glucose, AST, GGT, ferritin, HbA1c. The GGT/ALB ratio showed positive correlations with glucose, triglycerides, AST, ALT, ALP ferritin, HbA1c. For FIB-4, values below 1.3 indicate insignificant or low-grade fibrosis, while values above 1.3 indicate high grade fibrosis. For APRI scoring, a group with a score below 0.5 indicates insignificant or low-grade fibrosis, while scores above 0.5 were included in the high-grade fibrosis/cirrhosis group, representing significant fibrosis patients. Similarly, a significant correlation has been found between the APRI scoring and AAPR, as well as the GGT/ALB ratio, in indicating fibrosis. Statistical analysis revealed a negative correlation between AAPR, FIB-4 score, and APRI score, and a positive correlation between GGT/ALB ratio and APRI score ($p=0.009$, $p=0.016$, $p<0.001$, respectively).

Conclusions: AAPR and GGT/ALB ratio can be used as predictive indices in patient groups at risk of NAFLD. These indices can be easily calculated with routine tests, represent a cost-effective option in clinical practice.

Keywords: *NAFLD, albumin, alkaline phosphatase, gamma glutamyl transferase albumin, fibrosis*

[Abstract:2423]

EVALUATION OF BONE MINERAL DENSITY IN YOUNG INFLAMMATORY BOWEL DISEASES PATIENTS

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Inflammatory bowel disease (IBD), which includes Crohn disease (CD) and ulcerative colitis (UC), is an important problem due to its rapidly increasing prevalence, as well as extraintestinal manifestations. One of the extraintestinal manifestations of IBD is osteoporosis.

Aim: To evaluate BMD in young patients with IBD.

Materials and Methods: 14 patients with verified diagnosis of IBD were examined: 5 patients had CD, 9 - UC; 9 men, 4 women. The mean age of patients was 28.1 [23;33] years. The mean age of onset of IBD 23.8 [19.8;27.9] years.

All patients underwent a general clinical examination, as well as a double-absorption X-ray densitometric examination with determination of BMD and bone mineral content (BMC). The data obtained were compared with data from the NHANES database

Results: The average Z criteria (L1-L4) was -0,45 [-1,48;-0,1]. The average Z criteria (femoral neck) was -0,6 [-1,38;0,48]. The average BMD value at the level of the lumbar spine (L1-L4) was 1.15 [1.02;1.18] (g/cm^2). The average total BMC was 68.02 [58.71;73.21] g. The average BMD value at the level of the femoral neck of the right femur was 0.95 [0.87;1.04] (g/cm^2). The average total BMC value at the same location-24.86 [19.87;27.08] g. The average BMD value at the level of the femoral neck of the left femur was 0.94 [0.89;1.07]. The average total BMC value -24.45 [21.75;26.47].

Conclusions: Despite the fact that the Z criterion is normal, the absolute values of the BMC in the BMD differ from the values compared with the database.

Keywords: *BMD, BMC, IBD*

 DOI: 10.12890/2024_V11Sup1

[Abstract:2430]

DIAGNOSIS OF AUTOIMMUNE LIVER DISEASES BY BIOSPY: A REVIEW

Heysa Estefany Mencia Chirinos, Jose María Alonso De Los Santos, Ismael Herrero Lafuente, Pamela Bedoya Riofrio, Daniel Monge Monge, Irene Arroyo Jimenez, Antonio De Pablo Esteban, Lorena Carpintero Garcia

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Purpose: To describe the epidemiology of autoimmune liver diseases diagnosed by liver biopsy and their evolution.

Methods: A retrospective descriptive observational study was carried out after obtaining the data from the electronic registries system of our hospital from May 2022 to June 2023.

Findings: The total number of liver biopsies performed in our centre in that period of time was 17. Of them, 41% presented features of autoimmune etiopathogenesis.

The mean age of the patients was 52 years with a female predominance (71%). The degree of fibrosis assessed by biopsy (METAVIR) was advanced in only 2 cases (F3), 1 had mild fibrosis (F1) and the rest corresponded to F2. It should be noted that the two cases with advanced fibrosis corresponded to the overlap forms and were the two patients with the worst evolution. The rest of the patients had a good evolution after starting treatment, with biochemical response and without requiring admission in the following 3 months after diagnosis.

Three patients had autoimmune-related diseases and none of the patients had a family history of autoimmune disease or previous liver disease.

Conclusions: - The diagnosis of liver disease by biopsy continues to be the gold standard, especially for those cases that raise diagnostic doubts and can change the prognosis.

- The biopsy allows, in addition to establishing a diagnosis, to assess the real degree of liver fibrosis.

- Although classical literature has always associated autoimmune aetiology with the female sex, we must never forget its appearance independent of sex.

Keywords: *autoimmune, liver, biopsy*

[Abstract:2450]

LIVER FIBROSIS IN PATIENTS WITH ALCOHOLIC AND VIRAL HEPATITIS

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Background: We studied the prevalence, and the liver fibrosis scores in patients with alcoholic hepatitis, viral C hepatitis (HCV) and viral B hepatitis (HBV). We also studied the prevalence and the consequences of alcohol consumption among patients with HBV and HCV.

Methods: The study was performed in three hospitals from Transylvania for ten weeks (1377 patients). For assessing liver fibrosis we used the Forns index.

Results: From the total number of patients, 4.28% were diagnosed with alcoholic hepatitis. The average for the Forns index was 4.9566 in patients with alcoholic hepatitis, as compared with 5.1816 in patients with other aetiologies of liver diseases (p=0.246). The prevalence of HBV was 1.81%. 24% of the HBV patients had a Forns index higher than 6.9, predictive for significant fibrosis. 16% of the patients with HBV are also consuming alcohol. The Forns index was higher in patients with HBV who were also alcohol consumers, as compared with those with HBV who do not consume alcohol (6.953, as compared with 6.11, p=0.295). The prevalence of HCV was of 7.5%. 18.75% of the HCV patients had a Forns index higher than 6.9. 13.88% of the HCV patients are also alcohol consumers. The Forns index was higher in HCV patients who were also alcohol consumers, as compared with those with HCV who do not consume alcohol (5.56, as compared with 5.11, p=0.22).

Conclusions: The patients with HCV or HVB and also consume alcohol have a higher fibrosis score, as compared with those who are not alcohol consumers.

Keywords: *liver fibrosis, alcoholic hepatitis, viral hepatitis*

[Abstract:2481]

A DIFFERENT APPROACH TO ACUTE TOXIC HEPATITIS WITH A CASE REPORT

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Herbal medicine has become widespread around the world. Since ancient times, plane tree (*Platanus orientalis*) leaf extract has been used as a pain reliever for chronic pain-related diseases. Small number of toxic hepatitis cases due to the use of plane leaf extract have been reported in the literature. We present a case of toxic hepatitis due to herbal medicine use, which progressed from an acute case to an underlying disease.

A 49-year-old male patient with no known disease applied to the emergency department with complaints of itching, jaundice, and fatigue lasting 20 days. It was learned that the patient had been drinking plane tree leaves extract at home to relieve leg pain for the last month. His liver function tests, total and direct bilirubin levels were found to be elevated. The patient was admitted to the internal medicine service with a preliminary diagnosis of acute toxic hepatitis. Liver function tests decreased during treatment; autoimmune markers found negative but his bilirubin levels remained stable. Also further examination for leg pain and numbness revealed diabetic neuropathy. In MRCP imaging, stenosis was detected in a segment of approximately 7 mm at the level of the distal common bile duct. After correlation with endoscopic ultrasonography, Whipple operation for mass excision performed. The biopsy result was found to be pancreatic

 DOI: 10.12890/2024_V11Sup1

adenoductal carcinoma developing on the basis of IPMN.
Herbal medicines are widely used in society. Although it causes acute organ damage, questioning why the patient uses the drug will lead us to the underlying cause.

Keywords: *adenocarcinoma, acute toxic hepatitis, plane tree leaf extract, Platanus orientalis*

[Abstract:2493]

DIAGNOSES AND PROFITABILITY OF A LIVER BIOPSY: OUR EXPERIENCE

Heysa Estefany Mencia Chirinos, Daniel Monge Monge, Jose María Alonso De Los Santos, Ismael Herrero Lafuente, Pamela Dennisse Bedoya Riofrio, Adriana Roa Ballesteros, Veronica Temprado Moreno, José David Silvano Cocinero

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Purpose: To describe the reasons for liver biopsy, the characteristics of the patients, and its diagnostic yield as a study method.
Methods: The liver biopsies performed in our hospital from May 2022 to June 2023 were obtained from the electronic registries of our hospital system to perform an observational, descriptive and retrospective study.
Findings: A total of 17 liver biopsies were performed in this period of time. Of these, 15 were percutaneous biopsies guided by ultrasound and 2 with laparoscopic access. There is no transjugular access since this service is not available in our centre. The reasons of 5 of them were a suspicion by imaging of liver metastasis in patients with an active oncological process, 1 for hepatosplenomegaly and 11 for alterations in the liver profile.
In the first group, all of them offered a diagnosis, being metastasis concordant with the underlying oncological process (breast, thyroid and colon). The patient with hepatosplenomegaly presented a diagnosis of congenital liver fibrosis. In the last group, 63% of these patients showed compatible autoimmune analysis, with autoimmune liver disease confirmed. The rest were divided between steatohepatitis and toxic hepatitis in the context of consumption of anti-inflammatory drugs. Two of the biopsies were performed while the patient was hospitalized, while the other 15 were outpatients.
Conclusions: - Liver biopsy continues to be the gold standard, despite the inherent risks of the test and the characteristics of the patient.
- No patient presented complications after the test in the hours following its performance.

Keywords: *biopsy, liver, diagnosis*

[Abstract:2510]

A RARE CASE OF ACUTE FULMINANT HEPATITIS

María Victoria Coral Orbes, Darling Vanessa Rueda Cala, Hugo Miguel Rodrigues Almeida, Oscar Humberto Díaz López, Nora Sabrina Gutiérrez Sampedro, Maria Luisa Pérez García

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Case Description: 87-year-old male with prostate adenocarcinoma treated with radiotherapy and secondary actinic proctitis, without toxic habits and independent. Presents to the Emergency Department with pain in the right hypochondrium and oedema in the lower extremities. For the past 3 months, he has been experiencing diarrhoea associated with weight loss and a decline in general health.
Physical examination reveals arterial hypotension, temporospatial disorientation, jaundice, painful hepatomegaly, ascites, and oedema up to the root of the lower limbs.
Laboratory analyses revealed severe hypoglycaemia, acute kidney injury (AKI-III), hepatic enzyme abnormalities with cytolysis and cholestasis, hyperammonemia, coagulopathy, and severe metabolic acidosis with hyperlactatemia. Autoimmunity and serologies for hepatotropic viruses were negative. Abdominal ultrasound showed hepatomegaly, heterogeneous echogenicity, ascites, without signs of portal hypertension.
Clinical Hypothesis: The patient was diagnosed with acute fulminant hepatitis, and autoimmune, metabolic, toxic, and infectious causes were ruled out, leaving ischemic or infiltrative aetiologies as possibilities. Despite supportive treatment, the patient progressed to multiorgan failure and died 10 hours after admission.
Diagnostic Pathways: Autopsy results provide the etiological diagnosis: Malignant anorectal melanoma with infiltration into the prostate, bladder, liver, spleen, perirenal fat, omentum, pancreas, diaphragm, and lungs. Acute hepatic failure secondary to metastatic infiltration.
Discussion and Learning Points: Anorectal melanoma represents only 1% of melanomas. Up to 60% present with metastases at the time of diagnosis, primarily in the liver. In this case, given the inability to perform diagnostic tests before death, it highlights the crucial utility of autopsy as a definitive diagnostic tool in rare situations.

Keywords: *fulminant hepatitis, melanoma, metastasis*

 DOI: 10.12890/2024_V11Sup1

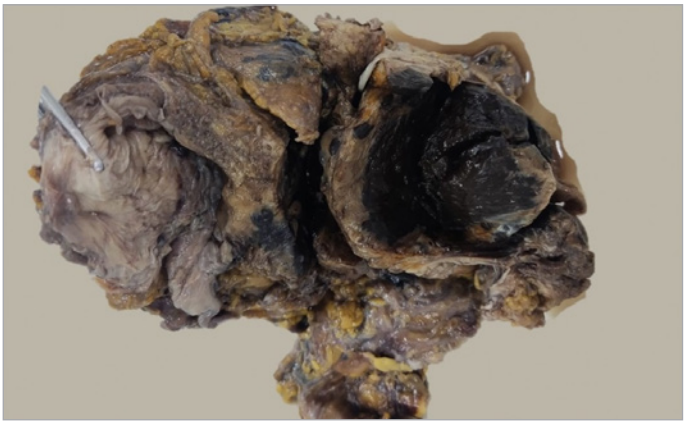

Figure 1.Malignant anorectal melanoma.

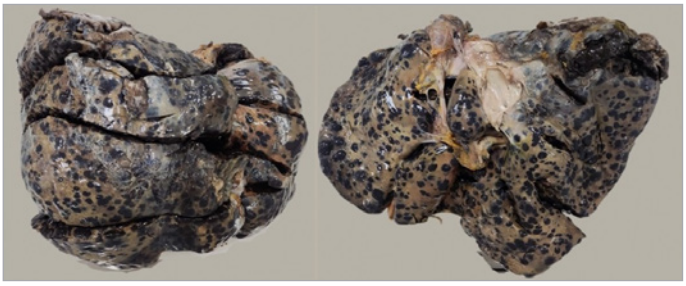

Figure 2.Hepatic metastatic infiltration of melanoma.

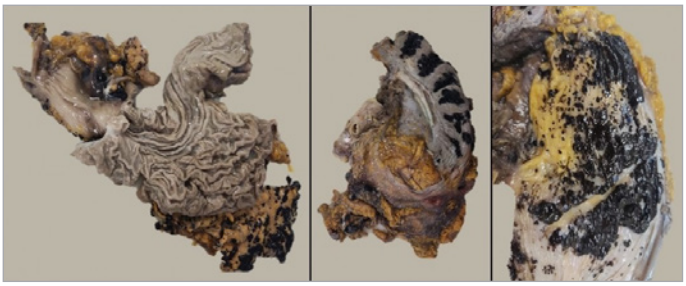

Figure 3.Metastatic melanoma infiltration of stomach, diaphragm and omentum.

[Abstract:2522]

ANTITHROMBOTIC THERAPY IN CHRONIC LIVER IMPAIRMENT

Nicoleta Dima, Ana Roxana Ganceanu Rusu, Andreea Clim, Daniela Maria Tanase, Anca Ouatu, Minerva Codruta Badescu, Diana Popescu, Oana Nicoleta Buliga Finis, Evelina Maria Gosav, Oana Bogdana Barboi, Minela Aida Maranduca, Ciprian Rezus

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The use of antithrombotic medication is becoming increasingly common in medical practice, but it must be carefully administered and monitored, considering the induced haemorrhagic risk. In patients with chronic liver impairment, the haemorrhagic risk associated with antithrombotic treatment is significantly higher, both due to associated comorbidities and the physiopathological peculiarities and socio-economic aspects that strongly influence pharmacotherapy. Haemostasis is a complex process involving the interaction of procoagulant, anticoagulant, and fibrinolytic factors. Chronic liver diseases are invariably associated with coagulation abnormalities, leading to states of hypo- or, more rarely, hypercoagulability. As a consequence of liver dysfunction, manifestations also occur in other organs or systems, with the most significant impact observed in the cardiovascular system, with therapeutic and prognostic implications. The liver unquestionably contributes to the haemostatic process, with hepatocytes being the site of synthesis for most coagulation factors. Modern lifestyle is accompanied by the development of a prothrombotic status, involving multiple imbalances with proinflammatory and procoagulant effects. Understanding the pharmacokinetics, dosage, and management of antithrombotic medication is crucial in daily practice, regardless of specialty. The evaluation of individual bleeding risk based on initial characteristics (using risk scores), the type, and duration of pharmacological therapy is recommended. Antithrombotic therapy is a continuously evolving medical field. Haemorrhagic risk is directly proportional to the intensity of anticoagulation. Antithrombotic treatment should follow current guidelines, and the benefit-risk ratio should be evaluated for each patient individually.

Keywords: *antithrombotic therapy, liver disease, haemorrhagic risk, prothrombotic status*

[Abstract:2526]

NOT EVERYTHING IS OF BILIARY ORIGIN

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A 24-year-old woman from Romania with no medical history of interest and no pets. She came to the emergency department with abdominal pain, fever and jaundice of 5 days' evolution. Physical examination revealed BP 125/70 mmHg, mucocutaneous jaundice, febrile (38.5 ºC), abdomen with pain on palpation in HD. Laboratory tests showed leukocytosis with neutrophilia (13,490/8900), eosinophils 36%, bilirubin 4.7 mg/dL, AST 218 U/l, Amylase 432 U/l, GGT 638, U/l, FA 610 U/l. Abdominal ultrasound was performed with images compatible with hydatid cysts, hepatomegaly and dilatation of intrahepatic and extrahepatic biliary tract (confirmed in abdominal CT scan and ruled cholangio-MRI) He was admitted on suspicion of acute cholangitis of biliary origin. Endoscopic retrograde cholangiopancreatography and sphincterotomy were performed, with mucous and blackish material coming out, visualising membranes and hydatides. The clinical and analytical evolution was good following ERCP. The patient was subsequently referred to general surgery for definitive treatment of hepatic hydatidosis (partial pericystectomy cyst) with adjuvant albendazole (400 mg every 12 hours).

We present a case of hepatic echinococcosis (HD) debuting as acute cholangitis secondary to cholangiohydatidosis. The existence of communications between the hydatid cyst and

 DOI: 10.12890/2024_V11Sup1

the biliary tree explains the genesis of cholangiohydatidosis. The clinical presentation and laboratory findings are totally non-specific. Treatment of HD-associated cholangitis consists of draining and clearing the bile duct by ERCP or conventional surgery or choledochostomy and simultaneous resection of the hydatid cyst in the liver. As for medical treatment with albendazole or mebendazole, there is now strong evidence to justify anthelmintic treatment.

Keywords: *biliary cholangitis, hepatic echinococcosis.*

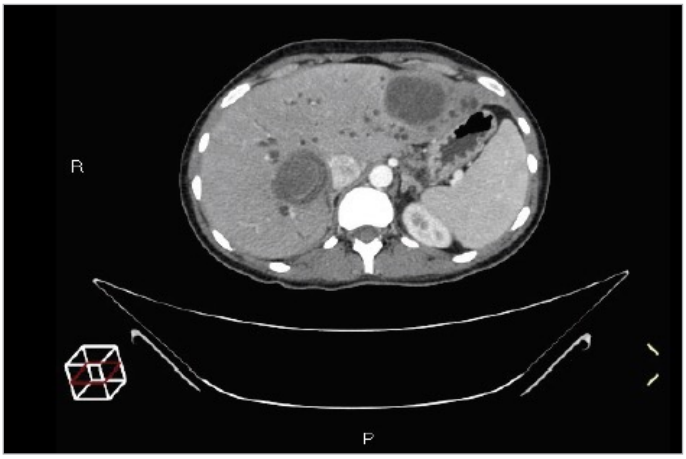

Figure 1. *Abdominal TC scan showing hepatic echinococcosis.*

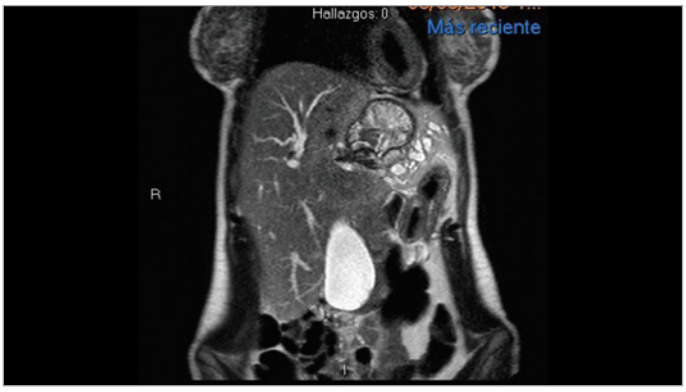

Figure 2. *RMN scan showing hepatic echinococcosis.*

[Abstract:2529]

AUTOIMMUNE HEPATITIS - A CASE OF A SILENT INJURY TO THE LIVER

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Autoimmune hepatitis is a rare immune mediated inflammatory disease of the liver characterized by circulating autoantibodies, increased concentration of immunoglobulin G (IgG) and distinctive histological features. Most patients are in their second or fifth/sixth decade and three quarters are women.

A 74-year-old male patient was referred to Internal Medicine consultation from primary care centre to further investigation of elevated transaminase concentrations. He was asymptomatic at presentation. His past medical history was relevant for an urticarial vasculitis and chronic gastritis. He had no relevant alcohol consumption. No drugs or herbal remedies with potential hepatotoxicity were identified. From the investigation carried out: hypergammaglobulinemia, elevated IgG and a positive titer of smooth muscle antibodies stood out. Other infectious and metabolic causes liver injury were excluded. A magnetic resonance cholangiopancreatography was performed and excluded abnormalities of the bile ducts.

Autoimmune hepatitis was considered the most probable hypothesis. As so, the patient was electively hospitalized to do a hepatic biopsy which came to document intense interface lymphocytic hepatitis with advanced fibrosis - morphology compatible with autoimmune aetiology. Given the progressively worsening of the cytocholestatic pattern with impaired coagulation tests, he started treatment with prednisolone with favourable response.

This case shows the challenging diagnostic pathway of an autoimmune hepatitis and highlights the importance of keeping the surveillance of liver function tests in patients with other extra-hepatic autoimmune disorders that particularly tend to be asymptomatic even if, at presentation, can already have a considerable degree of fibrosis like this case illustrates.

Keywords: *hepatitis, autoimmune, hypergammaglobulinemia*

[Abstract:2541]

HORMONE, LIPID AND INFLAMMATORY PROFILE IN PATIENTS WITH HEPATIC ENCEPHALOPATHY

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Background and Aims: The number of the patients with liver cirrhosis is globally increasing, but the complex mechanisms of the evolution of this disease is not yet completely discovered. The aim of this study is to analyse the thyroid hormone profile in patients with advanced liver cirrhosis and those suffering from hepatic encephalopathy, concomitantly with lipid metabolism disturbance and inflammatory status. The practical purpose of this work is to prevent the onset of hepatic encephalopathy and a better management of the disease in general and encephalopathy in particular, in the foreground.

Methods: We study the onset of the encephalopathy and the evolution of it, analysing the seric level of thyroid hormones, inflammatory test and lipidic profiles of the patient with liver

 DOI: 10.12890/2024_V11Sup1

cirrhosis. The group under study included 419 cases of patients with liver cirrhosis admitted over the course of a year in Constanta County Hospital, of which a number of 135 presented hepatic encephalopathy.

Results: The study of patients with hepatic encephalopathy and of thyroid, lipidic and inflammatory bioumoral changes demonstrated correlations that indicate a bad prognosis, thus contributing to raising an alarm signal for the prevention of complications.

Conclusions: The connections between occurrence of hepatic encephalopathy and the functioning of the other systems and organs represents a challenge for the clinician. Knowing these links we will be able to better control the evolution of the liver cirrhosis and the onset of the encephalopathy.

Keywords: hepatic encephalopathy, thyroid hormones, lipidic profile

[Abstract:2551]

A RARE CAUSE OF FULMINANT LIVER FAILURE

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42-year-old male with a history of smoking, alcohol consumption and untreated HBV infection. He consulted for pain, fever and increased abdominal perimeter. Physical examination revealed ascites and oedema. Laboratory tests showed leukocytosis with neutrophilia and prothrombin time 40%, with normal renal and liver function. Abdominal ultrasound showed splenomegaly and abundant ascitic fluid. Diagnostic paracentesis was performed, ruling out SBP. He was admitted with a diagnosis of suspected first hydropic decompensation in a patient with chronic liver disease related to harmful alcohol consumption and/or HBV infection.

In the first 24 hours of admission he presented poor clinical evolution with haemodynamic instability and respiratory failure, requiring admission to the ICU for IMV and the use of amines. A complete CT scan was performed with findings showing signs of portal hypertension, splenomegaly with multiple infarcts and ascites. Analytical worsening, renal failure and fulminant liver failure. Blood smear with no alterations and negative TCD. Finally, the patient died of multiorgan failure refractory to treatment. It was decided to perform a clinical autopsy: severe centrolobulillar haemorrhagic necrosis associated with thrombosis of the efferent suprahepatic and intrahepatic veins, Budd-Chiari syndrome (BCS) is characterised by obstruction of hepatic venous outflow. It is considered a rare hepatic manifestation of one or more prothrombotic factors, the most common being an underlying myeloproliferative disorder. Clinical manifestations range from asymptomatic patients to acute liver failure. Doppler ultrasound is the test of choice. Anticoagulation is the cornerstone of treatment, sometimes in combination with invasive measures (local angioplasty, TIPS or liver transplantation).

Keywords: fulminant hepatic failure, Budd-Chiari syndrome

[Abstract:2570]

DRUG-INDUCED ACUTE PANCREATITIS ?!

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[2] ⚠ The authors did not provide affiliations upon requests from the event organizer

Autoimmune pancreatitis is a frequently underdiagnosed condition that requires a high clinical suspicion for it. The incidence is estimated to be low compared to pancreatic neoplasm. We present the case of a 28-year-old young man, known to have ulcerative colitis, who presented to our service for epigastralgia, of medium intensity, started following the administration of the medication: 5-ASA. Following the anamnestic, paraclinical and imaging data, we established the suspected diagnosis of acute pancreatitis in etiological observation. We performed a computed tomography with contrast substance where a dimensional increase of the pancreas with a sausage-like appearance was highlighted. The imaging suspicion was autoimmune pancreatitis. We performed upper digestive endoscopy with biopsy of the duodenal papilla, followed by immunohistochemistry for IgG4. Corroborating the anamnestic, paraclinical, imaging, immunohistochemistry data, we confirmed the autoimmune aetiology of pancreatitis. Patients who are diagnosed with autoimmune pancreatitis, an extremely rare entity, will develop various complications such as: mixed pancreatic insufficiency, malabsorption syndromes, chronic pancreatitis, requiring a good interdisciplinary collaboration between doctors: gastroenterologists, imaging specialists, diabetologists, anatomopathologists.

Keywords: autoimune, pancreatitis, gastroenterology, endoscopy

[Abstract:2601]

A 27-YEAR-OLD MALE WITH ABDOMINAL PAIN

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A 27-year-old male with no vascular risk factors, smoker of tobacco and cannabis, was studied for functional dyspepsia in 2018 with a normal gastroscopy and negative Helicobacter pylori test. He was admitted due to an episode of non-radiating epigastric abdominal pain accompanied by vomiting lasting for five days. On physical examination, a generally painful abdomen without signs of peritoneal irritation was noted.

The following tests were conducted:

- Normal chest and abdominal X-rays.
- Gastroscopy revealed mild antral gastritis, with no evidence of intestinal metaplasia or curved bacilli in gastric biopsy.
- Complete blood analysis with no significant findings.

 DOI: 10.12890/2024_V11Sup1

• Abdominal CT angiography (Figure 1).

Given the clinical presentation and test results, the diagnosis of Wilkie's syndrome was concluded.

Discussion and Conclusions: Wilkie's syndrome involves the extrinsic compression of the third portion of the duodenum by the superior mesenteric artery at its origin from the abdominal aorta. This compression is due to weight loss, leading to a reduction in intermediate mesenteric fat, thereby decreasing the space between the two vessels and causing compression of this part of the duodenum. The clinical presentation primarily includes postprandial abdominal pain, vomiting, and weight loss. Treatment is typically conservative, involving nutritional support, symptom control, and correction of electrolyte imbalances. Surgical management is reserved for refractory cases.

In summary, an unusual cause of abdominal pain and vomiting is presented. A high index of suspicion is required for diagnosis, and a proper differential diagnosis is of vital importance (Table 1).

Keywords: *Wilkie's syndrome, superior mesenteric artery, abdominal pain*

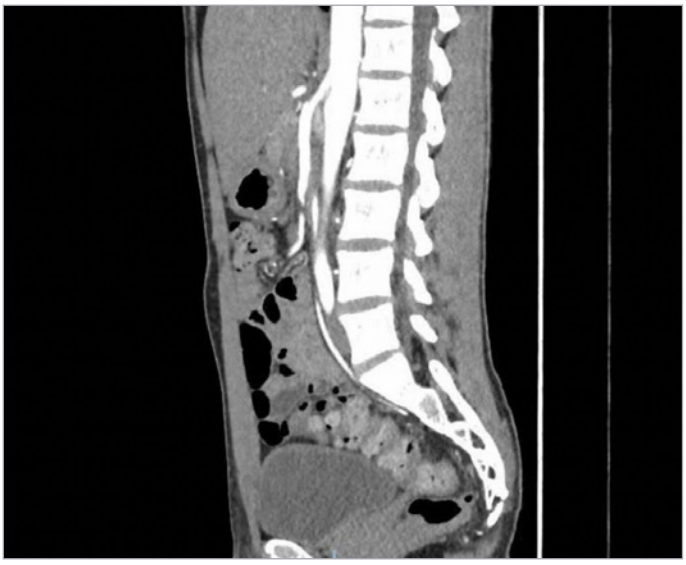

Figure 1. *Abdominal CT angiography.*
Angle formed by the aorta and the mesenteric artery measured in a sagittal plane is 25°, and the distance separating these 2 vessels in the axial plane is 6.5 mm. These findings may be related to the superior mesenteric artery syndrome or Wilkie's syndrome.

Toxics	Infectious	Digestive Disorders	Endocrine Causes	Miscellaneous
QT/RT	Viral or bacterial gastroenteritis	Mechanical obstruction	Pregnancy	Postoperative
Analgesics	H. pylori infection	Functional disorder	Diabetic ketoacidosis	Cyclical vomiting syndrome
Tobacco		Gastritis	Hypo/hyperparathyroidism	Starvation
Antidiabetic drugs		Pancreatitis	Addison's disease	Myocardial infarction (AMI)
Antibiotics		Crohn's disease	Porphyria	Psychiatric disorders
Antiepileptic drigs		Neoplasms	Uremia	
Cannabis		Mesenteric ischemia		
		GERD (Gastroesophageal reflux disease)		
		Peptic ulcer		
		Gastroparesis		

Table 1. *Most common causes of nausea with associated vomiting and abdominal pain.*

[Abstract:2608]

ABCB4 DISEASE: A FINDING AFTER PREGNANCY?

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ABCB4 mutations are related to several human liver diseases: low phospholipid associated cholelithiasis (LPAC), extrahepatic cholestasis of pregnancy and PFIC. Exact prevalence remains unknown. We present a case of a health thirty-six years old woman with an history of hepatic cholestasis during a second pregnancy. She didn't need treatment and was discharged after birth. One year later she was referred to Internal Medicine consultation due to persistent elevated gamma-glutamyl transpeptidase and alkaline phosphatase. Physical examination was normal and there were no other alterations on liver analysis. She didn't take any kind of medication. Abdominal ultrasound was unremarkable and further workup with immunology and autoimmunity was normal (including AMAs, ASMAs antigen immunoglobulins). Abdominal ultrasonography showed intrahepatic calculi and magnetic resonance cholangiopancreatography revealed 'prominence of intrahepatic bile ducts and the common bile duct, with a progressive narrowing of the common bile duct up to its intra-pancreatic portion. Some irregularities in the bile ducts in hepatic segment II are noted". Genetic test was then performed showing "c.3724dup,p." in heterozygosity on *ABCB4* gene. Heterozygous mutations can reduce biliary phospholipid concentration resulting in increased risk for microlithiasis, LPAC that appears before age 40 and many patients have a clinical history of intrahepatic cholestasis of pregnancy. Most of the patients benefits from long-term UDCA administration. Endoscopic and surgical treatment may be indicated in case of symptomatic lithiasis, and liver transplantation is an option for patients with end-stage liver disease.

Keywords: *lithiasis, mutations, liver*

 DOI: 10.12890/2024_V11Sup1

[Abstract:2611]

ASSOCIATION OF SERUM KINDLIN-2 LEVELS WITH CHRONIC LIVER DISEASE

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Objectives: Kindlin-2 is a focal adhesion protein responsible for the adhesion of cells to each other and to the extracellular matrix. This property affects processes such as invasion and fibrosis in the cell. In this study, the aim was to investigate the relationship between serum kindlin-2 levels and liver cirrhosis.

Methods: A group with liver cirrhosis [n=44] and a healthy group without liver cirrhosis [n=40] were included as participants. Serum kindlin-2 levels and liver tests were analysed.

Results: Kindlin-2 levels were lower in the cirrhosis group (4.47 (1.5-4.30); 0.55 (0.01-1) P<0.001). An inverse correlation was observed between Kindlin-2 and ALT, AST, INR, platelet count and APRI score.

Conclusions: In our study, kindlin-2 levels were found to be low in patients with liver cirrhosis. Kindlin-2 may affect the pathogenesis of fibrosis in the liver through integrin-mediated and integrin-independent pathways. Low kindlin-2 levels may serve as a biomarker for liver cirrhosis. Our study is the first clinical study to examine the relationship between kindlin-2 levels and liver cirrhosis. The findings of this study will guide studies on kindlin-2 and cirrhosis.

Keywords: *Kindlin-2, liver fibrosis, cirrhosis*

	Control group (n=40)	Liver cirrhosis group (n=48)	p
Age	43.95± 12.4	59.63±13.8	<0.001
women	28 (70)	17 (35)	<0.001a
men	12 (30)	31 (65)	<0.001a
platelet	241.0 ± 53.0	125 ± 68.2	<0.001
leukocyte	6.64 ± 1.8	6.45 ±1.8	0.730
ALT	18.13 ± 9.41	29.90 ±23.46	<0.004
AST	18.58 ± 7.02	46.29 ± 36.05	<0.001
ALP	67.03 ± 17.2	121.4 ± 88.4	<0.001
GGT	19.62 ± 13.35	57.13± 36.13	<0.001
Total bilirubin	0.74 ± 0.24	2.6 ± 4.8	0.003
Direct Bilirubin	0.1 ± 0.1	1.6 ± 3.3	0.004
INR	0.97 ± 0.13	1.6 ± 0.83	<0.001
PT (s)	12.6 ± 1.17	18.8 ± 6.3	<0.001
aPTT (s)	28.2 ± 2.9	45.5 ± 20.2	<0.001
Albumin (g/ dL)	44.2 ± 3.4	33.8 ± 8.5	<0.001
CRP (mg)	2.8 ± 3.9	12.8 ±15.2	<0.001
APRI	0.2 ± 0.13	1.4 ±1.8	<0.001
MELD-NA	2.02±2.39	9.2±6.24	<0.001
Kindlin-2 (ng/L) median (25-75)	4.47 (1.5-4.30)	0.55 (0.01-1)	<0.001b

Table 1. *Demographic and laboratory data of patient and control groups.*

ALT: Alanine amino transferase; AST: Aspartate amino transferase; GGT: Gamma glutamyl transferase, ALP: Alkaline phosphatase; APRI: aspartate aminotransferase to platelet ratio; aPTT: active prothrombin; INR: international normalized ratio; PT: prothrombin time; CRP: C-reactive protein, MELD-NA score: Model For End-Stage Liver Disease; p<0.005 statistically significant value. SD: Standard deviation a: chi square test b: Mann Whitney U, Others: Independent sample t test.

	B	p	EX(B)
Kindlin-2	-0.230	0.045*	0.794
Thrombocyte	-0.033	0.006*	0.967
Albumin	-0.257	0.055	0.774
INR	8.397	0.045*	4432.63

Table 2. *Logistic regression analysis for liver cirrhosis.*

*INR: international normalized ratio; * p <0.05 significant.*

[Abstract:2647]

FIBROMETER SCORES PREDICT SIGNIFICANT FIBROSIS AND CIRRHOSIS IN PATIENTS WITH CHRONIC VIRAL HEPATITIS AND METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE: A GREEK CENTER EXPERIENCE

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Background: We assessed FibroMeter and FibroMeter vibration-controlled transient elastography (FibroMeter VCTE) in Greek patients with chronic viral hepatitis (CVH) B and C and metabolic dysfunction-associated steatotic liver disease (MASLD) to evaluate their accuracy in predicting advanced (≥F3) and significant (≥F2) liver fibrosis.

Methods: Patients with CVH (n=83) and MASLD (n=38) underwent liver biopsy and transient elastography (TE) on the same day as sera collection. FibroMeter scores, APRI, FIB-4 and MASLD fibrosis score (MFS) were calculated.

Results: In CVH, FibroMeter VCTE performed equivalently to TE and better than the other markers in predicting ≥F3 and ≥F2 fibrosis (F3: AUC 0.887, p<0.001; F2: AUC 0.766, p<0.001). FibroMeter Virus (cut-off 0.61) had lower sensitivity (20%) but performed equivalently to APRI and FIB-4. In MASLD, all markers but APRI performed equivalently in predicting ≥F3 fibrosis. FibroMeter VCTE>0.2154 had the same sensitivity (100%) and specificity (81%) as TE (cutoff >7.1 kPa). FibroMeter

 DOI: 10.12890/2024_V11Sup1

MASLD>0.25 performed equivalently to MFS and FIB4, but with higher specificity (100%). Both FibroMeter and FibroMeter VCTE correlated with histology staging but not with transaminases levels.

Conclusions: FibroMeter VCTE can accurately predict advanced fibrosis in CVH and MASLD, irrespectively of transaminases levels. FibroMeter Virus can be applied only as an alternative marker in CVH, while FibroMeter MASLD performs equally to TE and calculated scores (MFS, FIB-4) in predicting advanced fibrosis in MASLD patients.

Keywords: *FibroMeter scores, liver elastography, fibrosis*

[Abstract:2665]

EFFECTS OF PLANT-BASED DIETS ON METABOLIC PARAMETERS AND VISCERAL STEATOSIS: A PROSPECTIVE STUDY

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Plant-based diets have lately gained popularity due to their claimed health benefits. This study aims to evaluate the effects of plant-based dietary routines compared to omnivore diet on multiple variables, including the steatosis of the liver and kidneys, serum lipid profile and insulin resistance, and clinical parameters such as blood pressure, body composition.

This interventional single-centre prospective study included 53 omnivore participants, and these participants were divided into omnivore, vegetarian, and vegan diet groups according to their preferences and followed up for six months. In addition to anthropometric measurements and biochemical parameters, liver and kidney steatosis were assessed at baseline and at the end of a six-month follow-up by magnetic resonance imaging-proton density fat fraction (MRI-PDFF).

The study has demonstrated that a vegan diet has been associated with significant improvement in total hepatosteatosis, steatosis at segment 6 of the liver, and steatosis at the lower kidney pole, along with a decline in serum low-density lipoprotein and high-density lipoprotein levels and in systolic and diastolic blood pressure values($p < 0.01$). Nevertheless, no such association has been illustrated for vegetarian diet.

This study is significant since it is among the few studies investigating the effects of various dietary types on biochemical and imaging parameters. Findings suggest that a vegan diet might play a significant role in future strategies for reducing blood pressure, cholesterol levels, and liver steatosis.

Keywords: *vegetarian diet, non-alcoholic fatty liver disease, chronic kidney disease, steatosis, hepatosteatosis*

[Abstract:2666]

INVESTIGATION OF THE RELATIONSHIP BETWEEN LIPID PROFILE AND DISEASE SEVERITY IN PATIENTS DIAGNOSED WITH LIVER CIRRHOSIS

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Aim: Liver cirrhosis is an irreversible and progressive liver disease with global prevalence, marked by various complications. The liver plays a crucial role in triglyceride, cholesterol metabolism, and lipoprotein synthesis. Consequently, patients with liver cirrhosis often experience impaired lipid metabolism. This study aims to explore the relationship between these scores and lipid parameters not included in the Child-Pugh and MELD systems.

Materials and Methods: The study included patients diagnosed with liver cirrhosis at the Internal Medicine clinic of Sancaktepe Sehit Prof Dr Ilhan Varank Training and Research Hospital from November 1, 2021, to March 31, 2023. Data collected encompassed patients' age, gender, cirrhosis aetiology, hemogram, biochemistry, lipid parameters, Child-Pugh scores, and MELD-Na scores.

Results: Ninety-five patients (46 women, 49 men) participated, with an average age of 62.40±11.89 years. Non-alcoholic steatohepatitis (NASH) was the predominant cause of liver cirrhosis. The median MELD-Na score was 10, and the Child-Pugh score was 6. Average LDL-cholesterol was 88.17±35.02 mg/dl, HDL-cholesterol was 43.97±17.11 mg/dl, total cholesterol was 151.02±47.04 mg/dl, and triglyceride was 111.81±67.44 mg/dl. Significant negative correlations were found between LDL-cholesterol, total cholesterol, triglyceride values, and MELD-

 DOI: 10.12890/2024_V11Sup1

Na score (p=0.002, p<0.001). Similar correlations were observed with the Child-Pugh score (p<0.001, p<0.001, p=0.026). LDL-cholesterol and total cholesterol levels exhibited significant differences across Child-Pugh stages, with the highest levels in Child-Pugh A group patients.

Conclusions: The study suggests a potential link between LDL-cholesterol and total cholesterol levels and the severity of liver cirrhosis. Lower levels of LDL-cholesterol and total cholesterol may indicate more severe liver damage.

Keywords: disease severity, lipid level, liver cirrhosis

		Patients with Cirrhosis (n=95)
	Age (years)	62.40±11.89 a
	Gender (Male/Female)	49 (51.6%) / 46 (48.4%)
Cirrhosis Etiology	HBV	19 (20%)
	HCV	3 (3.2%)
	Alcohol	8 (8.4%)
	Cryptogenic	17 (17.9%)
	Autoimmune	3 (3.2%)
	Primary Biliary Cirrhosis	3 (3.2%)
	Primary Sclerosing Cholangitis	2 (2.1%)
	Cardiac	13 (13.7%)
	Other	3 (3.2%)
	MELD-Na Score	10 (87-14) b
	Child-Pugh Score	6 (5-8) b
Child-Pugh Classification	A	51 (53.7%)
	B	37 (38.9%)
	C	7 (7.4%)

Table 1. *Demographic characteristics of the patients in the study. a: Mean ± Standard deviation b: Median (Interquartile difference) - [Median(IQR)].*

	Patients with Cirrhosis (n=95)
Urea (mg/dl)	32 (20-45) a
Creatinine (mg/dl)	0.88 (0.72-1.10) a
Sodium (mEq/L)	138 (135-140) a
Potassium (mEq/L)	4.29 (4.00-4.72) a
ALT (U/L)	262(15-34) a
AST (U/L)	30 (23-48) a
Albumin (g/dl)	3.760 (3.00-4.00) a
D. Bilirubin (mg/dl)	0.50 (0.30-0.72) a
T. Bilirubin (mg/dl)	1 (0.70-1.50) a
LDL-Cholesterol (mg/dl)	88.17±35.02 b
HDL-Cholesterol (mg/dl)	43.97±17.11 b
Total Cholesterol (mg/dl)	151.02±47.04 b
Triglyceride (mg/dl)	111.81±67.44 b
Leukocyte (103/mm^3)	5.75(4.40-7.23) a
Haemoglobin (g/dl)	11.48±2.34 b
Platelet (103/mm^3)	113 (83-178) a
INR	1.28 (1.10-1.45) a

Table 2. *Laboratory parameters of the patients in the study. a: Median(Interquartile Difference) - [Median(IQR)] b: Mean±Standard Deviation.*

	r a	p b
LDL-Cholesterol – MELD-Na Score	-0.318	0.002
HDL-Cholesterol – MELD-Na Score	-0.194	0.059
Total Cholesterol – MELD-Na Score	-0.362	<0.001
Triglyceride – MELD-Na Score	-0.189	0.066
LDL-Cholesterol – Child-Pugh Score	-0.397	<0.001
HDL-Cholesterol – Child-Pugh Score	-0.162	0.116
Total Cholesterol – Child-Pugh Score	-0.442	<0.001
Triglyceride – Child-Pugh Score	-0.229	0.026

Table 3. *Correlation between Lipid levels and MELD-Na and Child-Pugh Scores of the patients in the study. a: Spearman correlation coefficient b: Spearman correlation*

[Abstract:2677]

UNIQUE CASE AND CHALLENGES IN A CASE OF RECURRENT CHOLEDOCHOLITHIASIS AND CHOLANGITIS YEARS AFTER CHOLECYSTECTOMY

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Introduction: Primary choledocholithiasis typically occurs in the setting of bile stasis, resulting in a higher propensity for intraductal stone formation. Older adults with large bile ducts are also at elevated risk for the formation of primary bile duct stones. In this patient, it is a recurrent phenomenon years after cholecystectomy, that it is still occurring in the present day, making it a unique case in the medical literature.

Case Presentation: This case is about a white Caucasian female of 63 years old, with a previous long history of neglected atrophic cholecystitis who has undergone cholecystectomy in 2014 and has since presented with multiple episodes of choledocholithiasis associated with cholangitis objectified by multiple MRI scans and ERCP procedures. However, in spite of drastic changes in the lifestyle of the patient and follow-up consults, the patient continues to develop recurrent primary choledocholithiasis, even after one month after removal of the stones through ERCP.

Currently the patient is still suffering from recurrent choledocholithiasis which occasionally manifests with short episodes of cholangitis with spontaneous resolution of symptomatology after the passage through the Oddi sphincter of the gall stones.

Discussion: This is a unique case in the medical literature, since there are very few articles describing recurrent primary choledocholithiasis in the absence of obvious risk factors for such condition. Furthermore, it is a challenging case since it was so far impossible to find a long-term solution for this condition, despite the interest of the patient and numerous attempts from multiple doctors.

Keywords: recurrent, choledocholithiasis, cholangitis, cholecystectomy

 DOI: 10.12890/2024_V11Sup1

[Abstract:2746]

COMPARISON OF METHODS IN ASSESSMENT OF HEPATIC ENCEPHALOPATHY AND BLOOD AMMONIA LEVELS IN PATIENTS WITH LIVER CIRRHOSIS

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Summary: Hepatic encephalopathy (HE) is a serious complication of liver cirrhosis (LC), but there is no specific test for diagnosing HE. Ammonia levels are sometimes used, but these values alone cannot diagnose HE.

Purpose: Estimate the diagnostic value of tests which are used to evaluate HE.

Methods: 86 patients with LC were enrolled with median age-52 [43;62]; female-65%. West-Haven criteria were used to determine the stage of HE. Mean MELD score was 14 [9;20]. Number connection test (NCT), Monreal cognitive assessment (MoCA), mini-mental state examination (MMSE) and the ammonium level were assessed in 84, 26, 28 and 45 patients respectively.

Results: According to the West-Haven criteria, 78 (91%) patients had HE: 22 (28%) patients had minimal HE, stage 1-42 (54%), stage 2-14 (18%). 73 (87%) of patients didn't complete the NCT. Mean NCT score was 68 [49;110,5] sec. For NCT sensitivity was 93.4%, specificity-75%, PPV-97.3%. 14 (54%) of patients didn't complete the MoCA. Mean MoCA score-25 [20;28]. For MoCA sensitivity-63.6%, specificity -100%, PPV - 100%. 20 (71%) of patients didn't complete the MMSE. Mean MMSE score-26.5 [24;29]. For MMSE sensitivity was 79.2%, specificity - 75%, PPV - 95%. 41 (91%) of patients had elevated ammonium levels, 4 patients had normal ammonium levels. Mean ammonium level was 97 [66;177] μmol/l. For blood ammonia level sensitivity was 90.24%, PPV - 90.24%.

Conclusions: NCT had the highest sensitivity, but its specificity is comparable to MMSE. MoCA had excellent specificity but low sensitivity. High sensitivity of ammonium was noted.

Keywords: hepatic encephalopathy, liver cirrhosis, ammonium

[Abstract:2747]

COMPARATIVE STUDY OF NRS-2002, RFH-NPT METHODS FOR DIAGNOSIS OF NUTRITIONAL STATUS IN PATIENTS WITH LIVER CIRRHOSIS

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Summary: Malnutrition in patients with liver cirrhosis (LC) is a serious problem, contributing to an increase in morbidity, length of hospital stays and mortality. Early diagnosis of malnutrition is fundamental.

Purpose: Conduct a comparative assessment of malnutrition determining methods RFH-NPT, NRS-2002 in patients with LC.

Methods: We recruited 63 patients with LC, mean age -52 [44; 60] years; female- 41 (65%). The severity of LC according to the Child-Pugh classification: class A – 16 (25%) patients, class B – 24 (38%), class C – 23 (36.5%). Mean MELD value -13 [8; 20]. The presence of sarcopenia was made clinically (anthropometry and dynamometry), the RFH-NPT was assessed in all patients, NRS-2002- in 35.

Results: Sarcopenia was detected in 32 (50.8%) patients. The mean dynamometry value was 20.5 [16.9; 24.2] kg. According to the results of the RFH-NPT, 34 (54%) patients had a high risk of malnutrition, 8 (12.7%) – an average risk, 21 (33.3%)- low risk. According to NRS-2002, 12 (34.3%) had medium/high risk, 23 (65.7%)- low risk. When the value of RFH-NPT was more than 0, the sensitivity was 75%, specificity - 42%. When NRS-2002 value was more than 2, the sensitivity was 39.3%, the specificity was 85.7%.

Conclusions: Sarcopenia was diagnosed in a half of patients. The RFH-NPT test turned out to be more sensitive (75%) than NRS-2002 (39.3%), and NRS-2002 more specific (85.7%) than RFH-NPT (57.14%).

Keywords: Liver cirrhosis, sarcopenia, malnutrition, RFH-NPT, NRS-2002

[Abstract:2770]

EFFECT OF EZETIMIBE IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background and Objectives: Non-alcoholic fatty liver disease (NAFLD) is one of the leading causes of liver cirrhosis. Currently, there are no drugs approved by regulatory agencies for the treatment of NAFLD and no drug has been tested for phase III clinical trials for the treatment of NAFLD. Ezetimibe, an inhibitor of intestinal cholesterol absorption, can potentially treat NAFLD

 DOI: 10.12890/2024_V11Sup1

by inhibiting lipogenesis, decreasing hepatic free fatty acids, improving insulin sensitivity, and decreasing hepatic inflammation and fibrosis. This study aims to assess the effect of ezetimibe in patients with NAFLD, including changes in liver imaging, histology, biochemical parameters, and incidence of liver-related complications.

Methods: We performed a computerized literature search of five electronic databases from inception to October 2023. We included meta-analyses, systematic reviews, and randomized controlled trials. Two review authors independently assessed the risks of bias while disagreements were resolved by consensus.

Results: This study included five trials involving 243 patients. Three trials compared ezetimibe to placebo, one trial compared ezetimibe and rosuvastatin combination to rosuvastatin monotherapy, and one trial compared ezetimibe to acarbose. The risk of bias in these trials was low. Data synthesis showed no significant difference in ezetimibe compared to controls in improving liver steatosis, fibrosis, liver biochemical parameters, and insulin resistance.

Conclusions: Ezetimibe is not recommended for the treatment of NAFLD due to the lack of evidence of benefit in hepatic steatosis and fibrosis. Further randomized controlled trials with sufficiently large sample sizes with extended observation periods analysing the outcomes reported in this study are necessary.

Keywords: *ezetimibe, non-alcoholic fatty liver disease, metabolic dysfunction-associated steatotic liver disease, hepatic fibrosis*

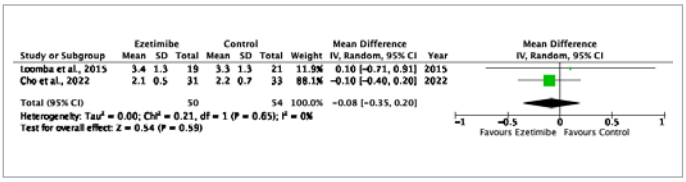

Figure 1. *Ezetimibe versus control in improving hepatic steatosis as measured by MRE.*

Only two studies evaluated improvement in hepatic steatosis based on two-dimensional (2D) MRE. Random-effects meta-analysis showed no significant difference between ezetimibe treatment and control in reducing hepatic steatosis in terms of 2D MRE, MD -0.08, 95% CI -0.35 to 0.20, p=0.65, I2=0% (Loomba et al., 2015; Cho et al., 2022).

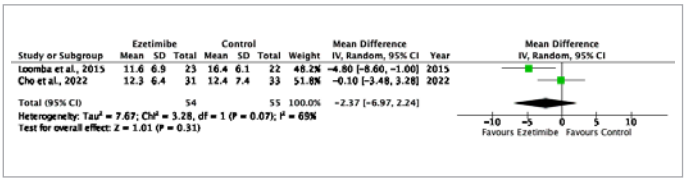

Figure 2. *Ezetimibe versus control in improving hepatic steatosis as measured by MRI PDFF % average.*

Only two studies evaluated improvement in hepatic steatosis based on MRI proton density fat fraction (PDFF) % average. Random-effects meta-analysis showed no significant difference between ezetimibe treatment and control in reducing hepatic steatosis in terms of MRI PDFF, MD -2.37, 95% CI -6.97 to 2.24, p=0.07, I2=69%,(Loomba et al., 2015; Cho et al., 2022).

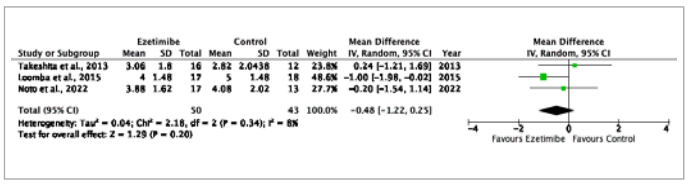

Figure 3. *Ezetimibe versus control in improving hepatic steatosis or fibrosis as measured by NAS (continuous outcomes).*

We were able to gather data on NAS from three trials. All three trials reported NAS as a continuous outcome. Random-effects meta-analysis showed no difference of ezetimibe from control in improving NAS, MD -0.48, 95% CI -1.22 to 0.25, p=0.34, I2=8%.

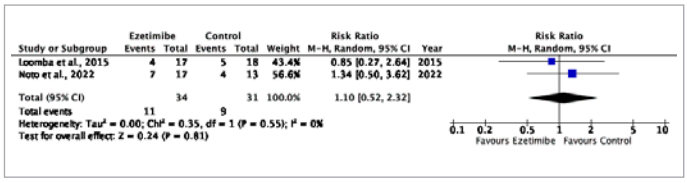

Figure 4. *Ezetimibe versus control in improving hepatic steatosis or fibrosis as measured by NAS (dichotomous outcomes).*

Two studies reported frequency of patients with at least two-point improvement in the NAS. Random-effects meta-analysis showed no difference of ezetimibe from control, RR 1.10 95% CI 0.52 to 2.32, p=0.55, I2=0%.

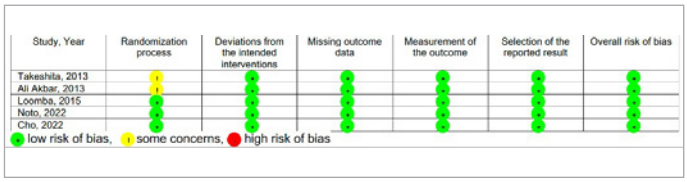

Figure 5. *Risk of bias of the included studies using the Risk of Bias Tool 2.*

We assessed the risk of bias based on published information and on supplementary data from the trial investigators. We utilized the Risk of Bias Tool 2 in the appraising the included studies.

 DOI: 10.12890/2024_V11Sup1

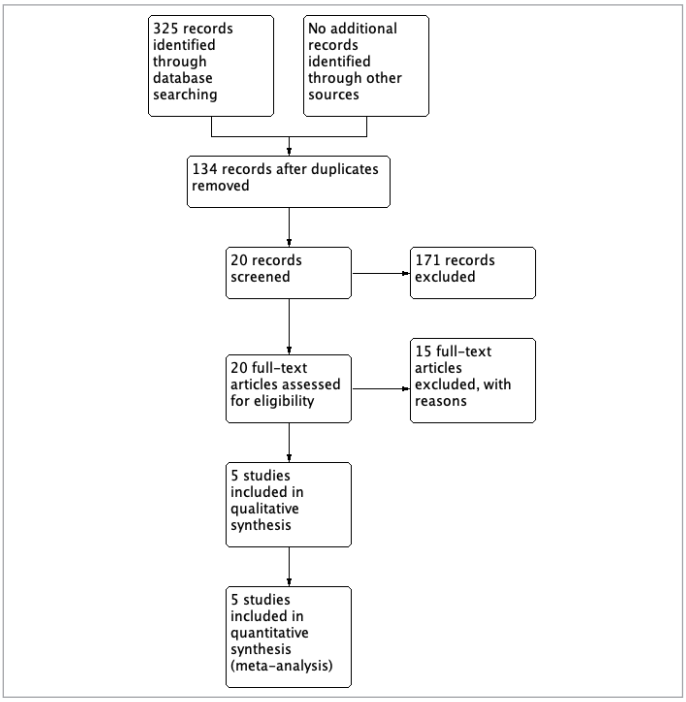

Figure 6. *Study flow diagram.*

We identified 325 references through electronic searches of Pubmed (n=110), CENTRAL (n=38), Science Citation Index Expanded (n=108), CINAHL (n=64), and ClinicalTrials.gov (n=5). After the removal of 134 duplicates and the exclusion of 171 clearly irrelevant references from screening titles and reading abstracts, we retrieved 20 references for further assessment. We excluded 12 studies that did not meet the inclusion criteria. In total, five (5) randomized clinical trials were included in the meta-analysis (Takeshita et al., 2010; Ali Akbar et al., 2013; Loomba et al., 2015; Noto et al., 2022; Cho et al., 2022).

Study Name, Year	Research design	Treatment (n) vs. Control (n)	Age (Mean ± SD)	Sex, Male/Female	Number of dropouts	Inclusion criteria	Exclusion Criteria	Primary Outcome	Secondary Outcome
Takeshita et al., 2013	Open-label, randomized controlled trial	Ezetimibe (17) vs. Placebo (14)	52.7±2.1	20/11	0	Biopsy consistent with NAFLD	Other causes of hepatic steatosis other than NAFLD, hepatic decompensation, serum bilirubin >2x the upper limit of normal	Change in serum ALT	Change in liver histology, hepatic gene expression profiling, fatty acid compositions of plasma and liver biopsy samples, lipid profiles, insulin resistance, ezetimibe safety
Ali Akbar et al., 2013	Double blind, randomized parallel group trial	Ezetimibe (29) vs. Acarbose (33)	40.6±2.3 (ezetimibe), 40.6±10.8 (acarbose)	35/27	0	NAFLD diagnosed by liver ultrasound, elevated ALT	Other causes of hepatic steatosis other than NAFLD, diabetes mellitus, previous use of anti-diabetic medication, anti-hyperlipidemic treatment, heart failure, kidney failure	ALT, AST, triglycerides, total cholesterol, LDL-C, FBS, hsCRP, serum insulin, HOMA-IR	None
Noto et al., 2022	Double blind, randomized controlled trial	Ezetimibe (25) vs. Placebo (25)	49.06±14.9 (ezetimibe), 94.1±18.1 (placebo)	19/31	4	Biopsy proven NASH, 18 years or older, elevated ALT, presence of hepatic steatosis, more than 5% on MRI-PDFF	Other causes of hepatic steatosis other than NAFLD, decompensated cirrhosis, active substance abuse, significant systemic illnesses, renal insufficiency, positive human immunodeficiency virus test, pregnancy, hepatocellular carcinoma, intake of vitamin E or pioglitazone, contraindications to liver biopsy, or inability to undergo MRI	Change in liver fat as measured by MRI(PDFF in colocalized regions of interest (ROI) within each of the nine liver segments	LDL reduction and histology-determined two-point reduction in NAFLD activity score without worsening fibrosis, 2D and 3D MRE-derived reductions in liver stiffness
Loomba et al., 2015	Double blind randomized controlled trial	Ezetimibe (17) vs. Placebo (13)	Not stated	Not stated	10	Older than 18 years, histologic diagnosis of definite NASH	Other causes of hepatic steatosis other than NAFLD, history of or planned gastrointestinal bypass or any additional bariatric surgery/ intervention, Child-Pugh score of B or C, hepatocellular carcinoma, recent significant weight loss	Histologic improvement in NASH	Improvement of the individual components in the NAS score, fibrosis, AST, ALT, insulin resistance, lipid profile, liver elastography
Cho et al., 2022	Open-label, randomized controlled trial	Ezetimibe + Rosuvastatin (34) vs. Rosuvastatin monotherapy (36)	50.3 (12.9) (combination) 52.5 (10.1) (monotherapy)	40/30	6	19–80 years of age, hepatic steatosis documented by abdominal ultrasound, hypertriglycemia, with or without diabetes mellitus	Other causes of hepatic steatosis other than NAFLD, diabetes other than type 2, previous history of ezetimibe treatment or discontinuation, history of discontinuing statins, uncontrolled diabetes, use of thiazolidinediones or sodium glucose co-transporter 2 inhibitors, Child-Pugh score >7, platelets <75,000, prothrombin time >1.5s, use of corticosteroids, AST or ALT >5x ULN, total bilirubin 5x elevated, history of malignant tumors, history of substance abuse, HIV, acute cardiovascular disease, renal failure, anemia, history of major gastrointestinal surgery, gastrointestinal bleeding, pregnancy	Change in liver fat by MRI PDFF quantified as the average in colocalized regions of interest (ROI) within each of nine liver segments	Change in liver fibrosis by magnetic resonance elastography, HOMA-IR, fasting glucose, HbA1c, free fatty acids, platelets, alkaline phosphatase, total bilirubin, AST, ALT, transient elastography (controlled attenuation parameter, liver stiffness measurement)

Table 1. *Characteristics of included studies.*

Four of the included studies were randomized controlled trials. One study utilized a parallel group design, which compared ezetimibe and acarbose. Two trials were open-label trials. The inclusion criteria of the included studies was NAFLD diagnosed by imaging or liver biopsy. Exclusion criteria common in the included studies were other causes of hepatic steatosis other than NAFLD, hepatic decompensation, previous use of ezetimibe, heart failure, and kidney failure. The primary outcomes of three of the five studies were improvement in liver steatosis or fibrosis as evidenced by biopsy or imaging. The primary outcome of the other two studies was improvement in liver-related biochemical parameters, primarily AST and ALT. The trials were conducted in Japan, Iran, Italy, USA, and Korea. Four trials were considered funded by industry or a for-profit institution. One study was unclear about funding.

[Abstract:2778]

SOMATOSTATIN ANALOGUES FOR RECURRENT GASTROINTESTINAL BLEEDING, A SPANISH COHORT

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Introduction: Recurrent gastrointestinal bleeding remains a therapeutic challenge. Somatostatin analogues have proven to benefit these patients.

Methods: We conducted a retrospective cohort study to analyse the efficacy of somatostatin analogues (SA) in chronic gastrointestinal bleeding or anemization non-reparable by endoscopy. We analysed patients treated with SA for this indication at a third-level hospital between 2018 and 2021.

We compared the number of admissions for haemorrhage or anaemia and the transfusion needs 12 months before and 12 months after initiation of SA treatment. We also compared haemoglobin level at the start of treatment and at months 3, 6, 9, 12. We used SPSS 23.0 version for statistical analysis. Study approved by our centre´s Ethical Committee.

Results: Throughout the study period, 30 patients received SA, 53.3% were women. Mean age was 76.4±8.3 years old. Mean age-adjusted Charlson Index was 6.1±2.1. Octreotide was prescribed in 66.6% of patients, and lanreotide in 33.3%. Three patients died within the 12 months of follow-up, and none was lost. At the end of follow-up blood samples from 24 patients were available.

Impact of SA in hospital admissions and transfusion needs (Table 1). Evolution of haemoglobin levels after treatment are described (Table 2).

Discussion: SA treatment resulted in a positive impact in our cohort, composed of elderly people with important comorbidity.

Conclusions: Treatment with SA significantly decreased gastrointestinal bleeding in terms of related admissions, transfusion needs and haemoglobin levels within the first 3 months in our cohort. This improvement was maintained throughout one year of SA treatment.

Keywords: *gastrointestinal bleeding, somatostatin analogues*

DOI: 10.12890/2024_V11Sup1

	Before treatment (x +- SEM)*	After treatment (x +- SEM)*	p
Number of admissions	2.7 +- 0.3	0.8 +- 0.2	<0.001
Number of transfusions	6.5 +- 1.04	3.7 +- 0.8	0.027

*Table 1. Impact of SA in hospital admissions and transfusion needs. *x +- SEM: mean +- standard error of the mean.*

Haemoglobin (mg/dL)	x +- SEM*	p**
Before starting SA	7.5 +- 0.3	-
3 months after	10.5 +- 0.4	< 0.001
6 months after	10.9 +- 0.3	< 0.001
9 months after	10.5 +- 0.4	< 0.001
12 months after	11 +- 0.4	< 0.001

*Table 2. Evolution of haemoglobin levels after treatment. *x +- SEM: mean +- standard error of the mean **Compared with haemoglobin before treatment.*

[Abstract:2782]

AUTOIMMUNE HEPATITIS? YES, BUT NOT ONLY

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Introduction: Autoimmune hepatitis is a chronic inflammatory disease, characterized by histological hepatitis, presence of antibodies and hypergammaglobulinemia. It is more prevalent in females, with a diverse clinical spectrum, and a strong association with other autoimmune diseases.

Case Presentation: Female, 44 years, previously autonomous. No relevant personal history. She presented in the Emergency Department with symptoms of asthenia, nausea, itching, generalized malaise, choluria, acholia and changes in skin pigmentation, with 72 hours. Analytically with increased transaminases, alkaline phosphatase, and hyperbilirubinemia, with no changes suggestive of coagulopathy. The patient was admitted for study. An abdominopelvic CT scan was performed, which revealed irregular contours on the liver and periportal echogenicity suggestive of oedema in the context of acute hepatitis. MRCP was performed which revealed hepatic fibrosis and areas of dilation of the peripheral intrahepatic bile ducts, suggestive of primary biliary cholangitis. The autoimmunity study revealed low C3 complement, positive AMA M2 and LC1 antibodies. On biopsy there was evidence of chronic hepatitis with portal inflammatory infiltrate, piecemeal necrosis and hepatocellular ballooning. Signs of intracanalicular, non-obstructive cholestasis were also present.

The patient was diagnosed with type II autoimmune hepatitis overlapping with primary biliary cholangitis and corticosteroid therapy was initiated, along with ursodeoxycholic acid.

The patient presented a favourable evolution during hospitalization, being discharged home with a weaning regimen of prednisolone and ursodeoxycholic acid.

Conclusions: Autoimmune hepatitis can be associated with other liver conditions. Delays in the diagnosis and treatment are often associated with a worse prognosis, increased risk of disease progression and higher mortality.

Keywords: autoimmune, hepatitis, biliary, cholangitis

[Abstract:2788]

WERNICKE ENCEPHALOPATHY SECONDARY TO BILIARY STASIS

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Early recognition of Wernicke encephalopathy is important to prevent neurologic deficiencies but, if patient has sepsis, hepatic failure, nutrient deficiency (secondary to the gastrectomy) it may be challenging to find the appropriate diagnosis. Also similar clinical conditions that were caused by different aetiologies, may develop one after another. The patient was admitted to the hospital to be treated for hepatic encephalopathy secondary to the biliary stasis and to investigate the aetiology. Bilirubin level was lowered and optimal hepatic encephalopathy treatment was administered but her then-improving condition worsened and imaging studies detected findings supporting Wernicke encephalopathy.

In order to reach the correct diagnosis in patients with multiple comorbidities, the patient should be evaluated from different perspectives.

Keywords: Wernicke encephalopathy, hepatic encephalopathy, thiamine, gastrectomy, micronutrient

 DOI: 10.12890/2024_V11Sup1

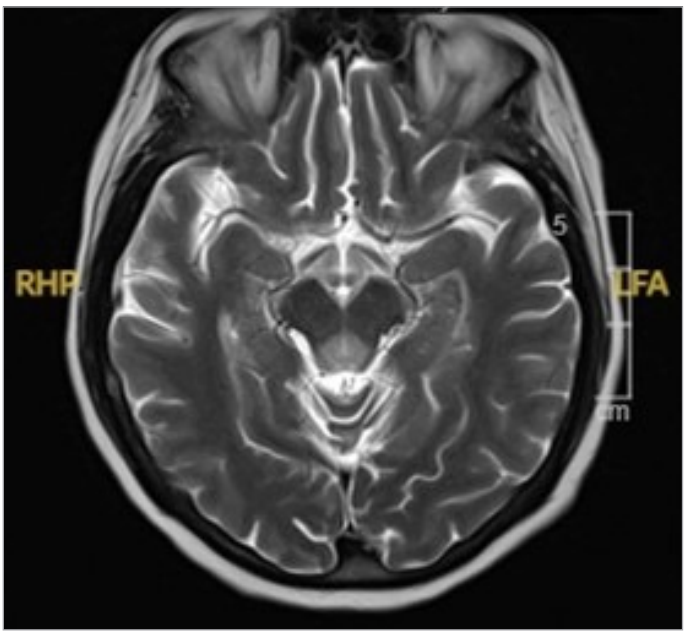

Figure 1. *(belongs to the patient):*
Increased periaqueductal T2 signal and increased bilateral mamillar body T2 signal.

[Abstract:2808]

HEPATOTOXICITY CAUSED BY DAILY USED DERMATOLOGICAL PRODUCTS: CASE REPORT

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[2] Faculty of Medicine, Maltepe University, Istanbul, Turkey

Case Description: A 44-year-old female, without prior diagnosis or regular medications, was admitted after a generalized clonic seizure. On physical examination, she complained of cramps all over her body, perception was impaired, and skin rashes were inspected. In the last month, she had recurring abdominal bloating, an inability to eat, and generalized body aches. She also noted losing 6 kg in a month, with a current BMI of 18 kg/m^2. Laboratory testing showed unpredicted liver enzyme values: AST: 226 U/L, ALT: 57 U/L, γ-GTP: 862 U/L, and DB: 0,47 mg/dL. The patient did not have a history of drug allergies.

Clinical Hypothesis: Acute liver injury.

Diagnostic Pathways: Abdominal ultrasonography revealed hepatomegaly and hepatic steatosis.

Tru-cut liver biopsy indicated macrosteatosis at liver zones 2 and 3, moderate lobular inflammation, centrilobular perisinusoidal fibrosis, and portal fibrosis, all of which denote grade 3, stage 2 hepatic steatosis.

The patient's history was further exhaustively investigated, revealing excessive exposure to titanium dioxide secondary to using several dermatological products, which was ascertained from the high amounts of titanium detected in her blood results, 16.60 µg/L.

Discussion and Learning Points: We present a case of liver injury caused by titanium dioxide (TiO_2), a compound not classified as liver toxic when used in dermatological products. Although the European Commission has banned titanium dioxide (E171) from being used as a food additive in the EU, it is still used daily and in various products. Thus, studies investigating TiO_2's various ways of exposure are needed to determine its toxic effects.

Keywords: *hepatotoxicity, titanium dioxide, dermatological products*

[Abstract:2826]

NUTRITIONAL AND PHYSIOLOGICAL SIGNIFICANCE OF THYMBRA SPICATA IN A SIMULATED DIGESTION AND FECAL FERMENTATION MODEL COUPLED WITH IN VITRO INTESTINAL INTEGRITY MODEL

Mohamad Khalil[1], *Francesca Piccapane*[2], *Mirco Vacca*[3], *Giuseppe Celano*[3], *Maria Calasso*[3], *Maria De Angelis*[3], *Rosella Caroppo*[2], *Piero Portincasa*[1]

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Background: (Poly)phenolic-rich Mediterranean plants such as *Thymbra spicata* have been associated with several health-promoting effects. Nutritional value as well as physiological interaction of *T. spicata* with the gastrointestinal tract were not investigated before.

Methods: Chemical and nutritional composition of *T. spicata* leaves are characterized by standard analytical methods. *T. spicata* leaves was subjects to ethanolic extraction and in vitro simulated gastrointestinal digestion followed by anaerobic gut fermentation model. The volatile organic compounds (VOCs) were detected by gas chromatography coupled with mass spectrometry. The effect on intestinal permeability was evaluated using a Caco-2 monolayers mounted in Ussing chamber.

Results: *T. spicata* contains high amount of fiber (12.3%) and unsaturated fatty acids (76% of total fat content). No significant modifications of viable microbe were observed following human microbiota fermentation of digested *T. spicata*, while higher production of short-chain fatty acids and positive changes in VOCs were observed. In Caco-2 monolayers, *T. spicata* and carvacrol (main phenolic compound) enhanced ionic currents in a concentration-dependent manner without compromising the monolayer's integrity, however, these effects were partially lost upon simulated digestion and completely abolished after colonic fermentation.

Conclusions: *T. spicata* represent a promising nutrient for the modulation of gut microbiota and gut barrier. Further studies

 DOI: 10.12890/2024_V11Sup1

must better define the mechanisms underlying the beneficial effect of *T. spicata*.

Keywords: *Thymbra spicata, carvacrol, gut microbiota, intestinal permeability, mediterranean diet*

[Abstract:2847]

WERNICKE´S ENCEPHALOPATHY (WE) SECUNDARY TO SEVERE MALNUTRITION: A DIFFICULT DIAGNOSIS

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WE is an acute neurological disorder resulting from thiamine deficiency. Although chronic alcoholism is the most common cause, other medical conditions causing severe malnutrition/ thiamine deficiency, such as infection, chronic diseases and cancer, are also associated with WE.

A 76-years-old man presented to the emergency department with mental confusion, visual and hearing hallucinations with 2 days of evolution. His medical history included: no history of alcohol abuse, hypertension, peptic-ulcer (treated 10 years previously), and in the last 3 month he is being studied because of a duodenum stenosis. The family reported that in the last month the patient has recurrent episodes of vomiting and anorexia that have become worse since the previous week.

Physical examination revealed somnolence, disorientation in time and space, incoherent speech and severe cachexia. Blood tests revealed microcytic anaemia (haemoglobin 6.7g/ dL), hypoalbuminemia (20 g/L), hypomagnesemia (1.27 mg/dL) and thiamine levels were significantly low (< 10 ng/mL). Brain computed tomography scan findings were normal, therefore a brain magnetic resonance imaging was requested, that highlighted the strong suspicion for WE.

Treatment with thiamine was started and a significant neurological improvement was observed in the following days, with complete remission. WE is a neurological emergency and a delay in the diagnosis and treatment can lead to permanent neurological damage and death. With this case, we aim to raise awareness of the need to identify this preventable and treatable disease. We propose that WE should be considered in all patients with altered level of consciousness of unknown cause, even in non-alcoholic patients.

Keywords: *Wernicke encephalopathy, malnutrition, thiamine deficiency, non-alcoholic*

[Abstract:2854]

A CASE OF AMYLOIDOSIS DEVELOPING IN THE EARLY PERIOD UNDER TREATMENT OF COMBINATION OF FMF AND CROHN'S DISEASE

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Introduction: Secondary amyloidosis, a rare complication of Crohn's disease, most commonly presents with renal involvement. FMF is an autosomal recessive disease that presents with accumulations in certain organs, and its association with Crohn's disease is rare. When FMF and Crohn's disease coexist, the number of attacks of FMF disease increases and presents with amyloidosis as a complication.

Case Presentation: A 26-year-old male patient was admitted to the emergency department with nausea, vomiting and was hospitalized with a diagnosis of acute renal failure (urea: 65, creatinine: 4.1). In his history, The patient had been diagnosed with FMF for 8 years and had been using colchicine and had been using mesalazine and azathioprine for 1 year with the diagnosis of Crohn's disease. Renal USG showed grade 2 nephropathy. In the 24-hour urine sample, proteinuria was 11 gr /day. During the follow-up of the patient, renal biopsy could not be performed due to deepening pancytopenia. Bone marrow aspiration biopsy revealed accumulation of material compatible with amyloid in the focal vascular structure wall.

Following the treatment, the blood table improved and the kidney biopsy performed on the 15th day was compatible with amyloidosis. The patient, for whom Infliximab treatment was started with the diagnosis of secondary renal amyloidosis, is still being followed.

Conclusions: FMF attacks may be more frequent and the development of amyloidosis may be earlier in these patients that where the FMF gene MEFV gene and the recently identified Crohn's disease susceptibility gene NOD2 gene are located on chromosome 6.

Keywords: *FMF, Crohn's disease, amyloidosis*

[Abstract:2887]

CHOLESTATIC JAUNDICE AS A MANIFESTATION OF DRUG REACTION WITH EOSINOPHILIA AND SYSTEMIC SYMPTOMS (DRESS) SYNDROME

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Cholestatic jaundice has been rarely reported as an initial presentation of DRESS syndrome, with only fifteen cases documented in the literature.

A 52-year-old man presented with cutaneous-mucosal jaundice

 DOI: 10.12890/2024_V11Sup1

associated with generalized pruritus. Laboratory findings indicated moderate hepatocellular injury (AST at 230 U/L, ALT at 201 U/L), and elevated cholestatic liver enzymes (GGT at 230 U/L, PAL at 450 U/L, and conjugated hyperbilirubinemia at 62 U/L, with a predominant direct bilirubin fraction at 50 U/L). Blood cell count revealed eosinophilia at 890/mm^3. Abdominal imaging showed no abnormalities. Anamnesis revealed recent use of allopurinol (300 mg/day) for the treatment of newly diagnosed gout over the past six weeks. A probable diagnosis of DRESS syndrome related to allopurinol was established, leading to the initiation of methylprednisolone pulse therapy (1 g/day for 3 days). Subsequently, the patient developed altered consciousness with a Glasgow Coma Scale score of 8/15, prompting transfer to the intensive care unit. Brain CT scan was normal, but liver injury worsened to 12 times the normal range, with AST at 425 U/L and ALT at 399 U/L, along with a decline in PT to 46% and acute renal failure requiring emergency haemodialysis (urea: 2.5 g/L, creatinine: 30 mg/L, eGFR: 22 ml/min/1.73 m^2).

Due to clinical and biochemical deterioration, the patient underwent plasmapheresis three times a week. Cholestatic markers, hepatocellular injury, and renal function showed improvement after the 6th session.

Keywords: *jaundice, plasmapheresis, DRESS*

[Abstract:2908]

ETIOLOGICAL INVESTIGATION OF HEPATOPATHY UNVEILING ABERNETHY SYNDROME

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Introduction: Abernethy syndrome, a rare congenital anomaly characterized by the absence or malformation of the portal vein, leading to portosystemic shunting, poses a unique challenge in the realm of hepatobiliary disorders.

Case Presentation: A 49-year-old man with a documented history of celiac disease, admitted for the investigation of chronic hepatopathy discovered incidentally during a preoperative cataract assessment. The patient, displaying facial dysmorphia, pancytopenia, mixed hyperbilirubinemia, and low prothrombin levels, underwent a comprehensive etiological investigation.

Initial inconclusive results were followed by echo Doppler who raised suspicion of a portal vascular malformation. Hepatic MRI confirmed Abernethy syndrome type II with distinct hepatic vascular dysmorphia. The patient displayed no cardiac anomalies, and a thoracic CT revealed no bronchotracheal abnormalities, no anomalies within the biliary tract were observable.

Discussion: Abernethy malformation manifests across a spectrum of clinical presentations. Typically diagnosed in childhood with features like hypergalactosemia, cholestasis, failure to thrive, psychomotor delay, or other congenital defects, it can also be incidentally discovered in adulthood during investigations for abdominal pain, abnormal liver function tests, or complications like portopulmonary syndrome, portopulmonary hypertension, or portosystemic encephalopathy. This case underscores the atypical presentation of Abernethy Syndrome in adulthood, highlighting the necessity of considering this rare anomaly in the diagnostic algorithm for chronic hepatopathy.

Conclusions: Patients with Abernethy malformation exhibit a myriad of hepatic pathologies, ranging from benign conditions like fatty liver to more severe manifestations, including hepatic malignancies. Recognizing the diverse clinical presentations and potential complications associated with Abernethy Syndrome is crucial for accurate diagnosis and appropriate management.

Keywords: *abernethy syndrome, hepatopathy, vascular dysmorphy*

[Abstract:2954]

EFFECTIVENESS AND SAFETY OF A SUBSTANCE-BASED MEDICAL DEVICE FOR THE TREATMENT OF IRRITABLE BOWEL SYNDROME: REAL-WORLD DATA FROM LARGE-SCALE DIGITAL SURVEYS

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Background: Irritable bowel syndrome (IBS) is a functional gastrointestinal disorder characterized by chronic abdominal pain and altered bowel habits. About 10-15% of adult population suffer from IBS, and standard of care is still lacking. Medical devices (MD) are products intended for a medical purpose, and some have been proposed in IBS patients. EU Regulation on MD requires that general safety and performance requirements (GSPRs) conformity should be updated throughout the lifecycle of marketed MDs.

Methods: We designed an interim analysis of real-world data (RWD) in IBS patients on effectiveness and safety of a marketed substance-based medical device (SBMD) (Aboca, Sansepolcro, Italy), a plant complex of resins, polysaccharides and polyphenols. Data were obtained through a dedicated web platform hosting structured digital surveys specifically developed for consumers (i.e., patients), physicians and pharmacists.

Results: Between January 2021 and April 2023, 2.775 consumers with IBS, 820 pharmacists and 651 physicians joined the survey, at a national level. In the consumer cohort (≥14yrs, 86% women), SBMD was used for typical IBS symptoms (i.e., abdominal bloating; abdominal pain/discomfort; altered bowel habits). In this

 DOI: 10.12890/2024_V11Sup1

cohort, 92% of respondents improved (extremely 14%; greatly 44%; moderately 34%); 89% of them had improved quality of life (extremely 13%; greatly 38%; moderately 38%). Noteworthy, symptom improvement occurred within 1 week in 44% of respondents. In 98% of consumers, product safety and tolerability rated excellent-fair. SBMD's effectiveness and safety profile was confirmed by 95-98% of physicians and pharmacists.

Conclusions: Our large-scale RWD survey shows that SBMD is safe and effective for IBS.

Keywords: *IBS, digital RWD, natural substance-based medical device*

[Abstract:2990]

PREVALENCE OF VIRAL HEPATITIS IN ROMANIAN RURAL COMMUNITIES AND THE CORRELATION WITH LIVER ENZYMES AND A JEUN GLYCEMIA

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Background: Viral hepatitis remains a significant global health concern, with varying prevalence in different populations. This study focuses on the rural communities of Romania, aiming to assess the prevalence of hepatitis B (VHB) and C (VHC) infections and their correlation with liver enzymes and fasting blood glucose levels.

Objectives: The primary objectives of this study were to determine the prevalence of VHC and VHB infections in Romanian rural communities, investigate the correlation between hepatic infections and liver enzyme levels, and explore potential associations with a jeun glycemia.

Methods: Conducted between April 2022 and November 2023, the study included 1552 unselected participants (1085 women, 467 men) with a mean age of 54.34 years. VHC and VHB infections were identified, and liver enzyme levels (TGO, TGP, GGT) and fasting blood glucose levels were measured. Statistical analyses were performed to assess correlations and significance.

Results: The prevalence of VHC and VHB infections was 2.4% and 2.8%, respectively. VHC affected 33 females and 5 males, while VHB impacted 22 females and 21 males. Individuals with hepatic infections showed statistically significant elevations in transaminases (TGO and TGP), indicating hepatic involvement, as well as lower platelet counts, and higher GGT levels, though the latter was not statistically significant. Both VHC and VHB cohorts displayed higher mean glycemia levels compared to the control group, persisting after excluding diabetic patients. However, no significant correlation was found between hepatic infections and fasting blood glucose levels. These results emphasize the impact of viral hepatitis on liver function parameters, calling for targeted public health interventions.

Keywords: *epidemiology, viral hepatitis, Romania, public health*

[Abstract:2998]

DRUG-INDUCED LIVER INJURY FROM STATINS - A CLINICAL CASE

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Case Description: Female, 72-year-old, with previous HBV infection and dyslipidaemia. She was doing mirtazapine 15 mg and atorvastatin 10 mg (that had been initiated three months before). She had abdominal pain in hypochondria and epigastric, nausea and vomiting. She mentioned soft and greenish stools and choluria in the previous three months, associated with the beginning of atorvastatin. There wasn´t a history of alcohol, smoking, illegal drugs, or herbal products. She lived in a house with salubrity, without animals. There wasn't any more relevant information. Lab results showed aminotransferases were 30 times upper limits of normal (ULN), mild hyperbilirubinemia at the expense of direct, elevation of gamma-glutamyl transferase (GGT) and alkaline phosphatase (AF). No signals of hepatic failure.

Clinical Hypothesis: The diagnosis was acute hepatitis. The possible aetiologies were: drug-induced hepatitis, autoimmune hepatitis, Hepatitis B Flare, and ischemic causes.

Diagnostic Pathways: Autoimmunity was negative. The HBs antigen was negative, and the HBV DNA was undetectable. The abdominal ultrasound was normal. And there wasn´t evidence of ischemia. The hepatic enzymology starts to normalize after discontinuing the atorvastatin.

Discussion and Learning Points: The patient was discharged on the 8th day of hospitalization with transaminases in decreasing pattern and remaining analytical normalization. Atorvastatin-related hepatotoxicity has been associated with a mixed pattern of liver injury typically occurring months after the initiation of the medication. Drug-induced hepatitis can mimic almost all forms of hepato-biliary diseases and should be a differential diagnosis to consider.

Keywords: *DILI, statins, hepatitis*

 DOI: 10.12890/2024_V11Sup1

[Abstract:3053]

GIANT ANTERIOR DUODENAL ULCER PRESENTING WITH CHRONIC BACK PAIN AND MASSIVE BLEEDING

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Duodenal ulcers (DUs) are asymptomatic in 70% of cases and ulcers are commonly located in the anterior bulb, with posterior placement being rare. Perforation is common in anterior DUs and bleeding is common in posterior DUs. We here report an elderly patient with anterior DU who was admitted with chronic intense back pain but followed a severe course in the hospital.

E.O., a 65-year-old male with a history of mild chronic kidney disease, diabetes mellitus, and hypertension, was hospitalized following several recent admissions to different clinics because of persistent back pain. While a gastroduodenoscopy was scheduled, sudden onset hematemesis and melena occurred, leading to hemodynamic instability (haemoglobin 4.8 g/dL). Urgent gastroscopy detected a giant anterior duodenal bulb ulcer (Forrest 1B, 3-4 cm). Bleeding control was achieved without a biopsy. Despite proper care, the patient's hemodynamic condition deteriorated, necessitating intubation for a few days. The biopsy taken with elective endoscopy was reported as "foveolar metaplasia, active duodenitis and chronic helicobacter pylori gastritis". Two weeks later, a repeat gastroduodenoscopy was performed due to the persistency of anaemia, which showed that the giant anterior DU was no longer visible, coinciding with the resolution of the concurrent back pain.

Back pain and bleeding are rare in anterior DUs. The correlation between back pain and DU in this case is supported by the disappearance of pain completely after the healing of the lesion. In conclusion, this case illustrates that anterior DUs may massively bleed without perforation, and they may simultaneously cause chronic back pain.

Keywords: *massive bleeding, duodenal bulb ulcer, back pain*

[Abstract:3059]

HERBAL SUPPLEMENT RELATED LIVER DAMAGE

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Nowadays, under the name of healthy life support, many preparations containing unapproved active ingredients with unproven effects and side effects are sold uncontrolled on websites and in markets. In this report, a case who developed liver toxicity after using herbal supplement purchased over the internet is presented.

A forty-year-old male patient, who had no known disease, medication, alcohol use was referred to the gastroenterology outpatient clinic due to weakness, fatigue and abnormal laboratory tests. There was no history of abdominal pain, vomiting, infection, or drug use. He stated that he had been using a herbal complex for the last two months to lose weight.

On physical examination, abdominal, lung and cardiac examination were normal. Laboratory tests revealed ALT: 2113U/L, AST: 737U/L, ALP: 129U/L, GGT: 418U/L, total bilirubin: 2mg/dL, direct bilirubin: 0.9mg/dL. Albumin and INR were within normal limits, and no pathology was detected in abdominal and portal doppler ultrasonography. When aetiology is investigated, HBsAg negative, Anti-HBc IgM negative, Anti-HBs positive, HAV IgM negative, Anti-HIV, HCV RNA, CMV, EBV PCR, Rubella IGM, Brucella agglutination were negative. ANA, ANCA, AMA, ASMA, LKM-1, tissue transglutaminase IGA, IGG were negative. The herbal product the patient was using was discontinued. During follow-up, INR elevation did not occur, liver function tests spontaneously regressed and returned to normal levels.

As in our case, liver function disorders associated with the intake of supplements are increasingly seen in daily practice. It's important for public health that these uncontrolled sales are limited or inspected by authorized institutions.

Keywords: *public health, herbal supplement, liver toxicity*

Figure 1. *Used supplement with multiple herbal ingredient.*

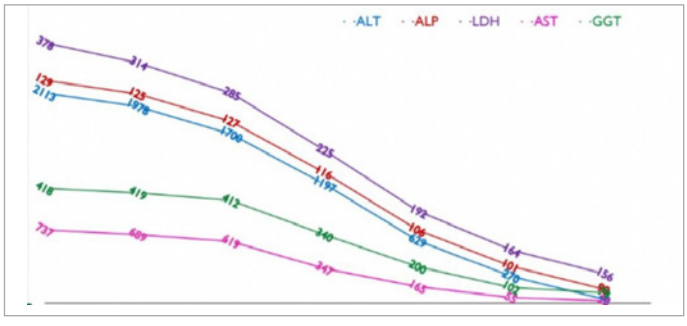

Figure 2. *Regression of liver function tests over time.*

DOI: 10.12890/2024_V11Sup1