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ABSTRACTS

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THE ANCILLARY FEATURES IN CONTRAST- ENHANCED ULTRASONOGRAPHY LI- RADS FOR THE ASSESSEMENT OF HEPATOCELLULAR CARCINOMA

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KEYWORDS: lcontrast-enhanced ultrasonography; ancillary features; LI-RADS

INTRODUCTION: Clinical utility of Ancillary Features (AFs) in Contrast- enhanced ultrasound (CEUS) Liver Imaging Reporting and Data System (LI-RADS) is yet to be established. Thus, we assessed the diagnostic yield of CEUS LI-RADS and AFs in hepatocellular carcinoma (HCC). To our knowledge, this is the first blind study of CEUS application in assessing focal liver lesions (FLL)by using the LI-RADS algorithm and AFs.

MATERIALS AND METHODS: We retrospectively included patients with risk factors for HCC and newly diagnosed FLL. All lesions have been categorized according to the CEUS LI-RADS v2017 by an experienced sonographer blinded to clinical data and to the final diagnosis. CEUS AFs in favor of benignity were size reduction or stability >2 years of the tumor. The malignancy aspects were: definite growth, nodule in nodule architecture and mosaic architecture, favoring HCC in particular. Diagnostic accuracy of CEUS was calculated.

RESULTS: From a total of 143 patients with 191 FLL, AFs favoring HCC were observed in 19.8% cases as hypoechoic rim and in 16.7% cases as nodule- in- nodule architecture. From the total of 141 HCC cases, 118 of them (83.6%) were correctly classified: 57.4%- LR- 5 and 26.2%- LR-4. In 9.21% cases, CEUS indicated LR-M; 2.12% cases- LR- 3. The LR-5 category was 96.2% predictive (PPV) of HCC. LR-5 had 60.4 % sensitivity and 93.6% specificity. PPV for primitive malignancy (LR- 4+ LR- 5) was 95.7%, with 88 % sensitivity, 89 .3% specificity and 88.4% accuracy for HCC. LR-4 category had 94.8% PPV and 26.2% sensitivity. CEUS LI-RADS L4+ L5 had 81,8% sensitivity for HCCs over 2 cm and 78,57% sensitivity for smaller HCCs.

CONCLUSION: CEUS LR-5 remains an excellent diagnostic tool for HCC, despite the size of the lesion. The use of AFs might improve the overarching goal of LR-5+ LR-4 diagnosis of high specificity for HCC and exclusion of non- HCC malignancy.

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LIFE BEYOND DEATH- LIVER TRANSPLANTATION IN A SMALL-VOLUME CENTER

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KEYWORDS: liver transplantation, liver cirrhosis; complications

INTRODUCTION: Liver transplantation (LT) is the curative treatment of liver cirrhosis, although is challenging associated with morbidity and mortality. LT is justifiable to be performed when the benefits outcome the risks of this procedure. The aim of this study was to evaluate the mortality rate, and short-term and long-term complications of LT in a small-volume center.

MATERIAL AND METHODS: Between June 2016 and April 2022, 34 adults underwent deceased donor liver transplantation at "Saint Spiridon" University Hospital, Iasi, Romania. The outcomes were reviewed in terms of 90-day mortality and 1-year survival rates, and post transplant complications.

RESULTS: The study group included 34 patients, most of them males (71.8%), aged between 25 and 63 years. The 90-day mortality rate was 14.7% and 1-year survival rate was 85.3%. Most of the patients were transplanted for decompensated viral B+D liver cirrhosis (34.3%), followed by virus C liver cirrhosis (25%) and alcoholic liver disease (21.8%). All the patients received a corticoid-free immunosuppressive treatment. During the follow-up 3 patients developed billiary anastomosis stenosis, 3 patients partial portal vein thrombosis, 10 patients were diagnosed with arterial hypertension, 1 patients with non-melanoma skin cancer and 1 patients with non-Hodgkin lymphoma. All patients diagnosed with viral C liver cirrhosis received interferon-free treatment after LT. None of the patients transplantated for virus B+D liver cirrhosis had disease recurrence.

CONCLUSION: The short-term and long-term survival rates are according to those reported by large-volume LT centers. Most of the complications developed during follow-up were immunosuppressive treatment related.

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DIAGNOSTIC AND PROGNOSTIC VALUE OF PRESEPSIN IN LIVER CIRRHOSIS AND SEPSIS: A PROSPECTIVE OBSERVATIONAL STUDY ACCORDING TO THE SEPSIS-3 DEFINITIONS

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KEYWORDS: liver cirrhosis; presepsin, infections

INTRODUCTION: Infections complicated with sepsis have a high prevalence in liver cirrhosis, and early recognition of sepsis could be challenging in these patients. We investigated the diagnostic and prognostic value of presepsin among patients with liver cirrhosis, according to the Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3).

MATERIAL AND METHODS: This prospective observational study included 120 patients divided into three groups: decompensated liver cirrhosis (n = 40), sepsis (n = 40), and septic shock (n = 40). Optimal cut-off values of presepsin to discriminate between the three groups were evaluated using receiver operating characteristic curve analysis. Cox proportional hazards model was performed to determine the risk factors for 30-day mortality, after we established the presepsin level cut-off.

RESULTS: Presepsin levels were significantly higher in sepsis than in decompensated liver cirrhosis cases (p < 0.001) and significantly higher in patients with septic shock than in those with sepsis (p = 0.002). The optimal cut-off value of the presepsin level to discriminate between sepsis and decompensated liver cirrhosis was 885 pg/mL (p < 0.001) and between sepsis and septic shock was 2505 pg/mL (p < 0.001). The optimal cut-off value of the presepsin level for predicting the 30-day mortality was 1085 pg/mL (p = 0.005) for patients with sepsis. Patients with higher presepsin levels (≥ 1085 pg/mL) had significantly higher mortality rates than those with lower presepsin levels (< 1085 pg/mL) (p = 0.004). In the multivariate Cox proportional hazards model, presepsin could predict the 30-day mortality in sepsis cases (p = 0.042).

CONCLUSIONS: Presepsin levels could effectively diagnose sepsis in patients with decompensated liver cirrhosis, and could help clinicians identify patients with sepsis with poor prognosis. Presepsin was an independent risk factor for 30-day mortality among cirrhotic patients with sepsis and septic shock.

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THE ROLE OF SERUM CHOLINESTERASE IN THE EVALUATION OF HEPATIC FUNCTIONAL RESERVE IN PATIENTS WITH HEPATIC CIRROSIS

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KEYWORDS: hepatic cholinesterase, cirrhosis of the liver

INTRODUCTION: Serum cholinesterase is one of the biological tests that can assess liver function in patients with cirrhosis of the liver, its value is generally reduced in advanced liver disease due to poor synthesis function.

MATERIAL AND METHOD: We conducted a retrospective study that included 184 patients with liver cirrhosis, hospitalized in the Medical Clinic I of the Emergency Clinical Hospital "Saint Andrew the Apostle" Constanta in 2021 (41.4% women and 58.6 % men with average age 62.3 +/- 10.57).
The etiology of cirrhosis, the Child Pugh class and the serum cholinesterase values were mainly followed, which were determined by the fast method (normal reference values 3500 - 10000 U / L) but also the relationship between serum cholinesterase and Child Pugh class.

RESULTS AND CONCLUSIONS: For the studied group the etiology of liver cirrhosis was: virus C in 51% of cases, alcoholic in 28.3% of cases, virus B in 12% of cases and in 8.7% of cases other etiologies (HBV + HCV, HBV + HCV, autoimmune, cryptogenetics, etc.) According to the Child Pugh classification, the patients were divided as follows: Class A 26.1%, Class B 56.5%, Class C 17.4%. Serum cholinesterase showed low values in 62% of all patients and of these 59.6% were Child Pugh Class C and 25.4% Child Pugh Class B. Patients with hepatic cirrhosis class Child Pugh A serum cholinesterase values were low in 15% (17/114) of cases.
Of the patients with Child Pugh C class cirrhosis and low serum cholinesterase, 8 also had hepatocellular carcinoma.
Low serum cholinesterase levels may be associated with advanced liver disease and are an important indicator of liver function.

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RENAL DYSFUNCTION WITH COGNITIVE IMPAIREMENT TO LIVER CIRRHOSIS

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BACKGROUND: Chronic renal dysfunction is associated with cognitive impairment in non-cirrhotic individuals, and it may be reserved by renal transplantation. Renal dysfunction is common in patients with liver cirrhosis. Although fluid depletion and electrolyte imbalance are known precipitating factors of hepatic encephalopathy (HE) in cirrhotic, the effects of renal dysfunction on cognitive function in this group of patients are largely unexplored.

METHODS: A total of 128 cirrhotic (mean (SD) age 57 (11.5); 49 females; Child-Pugh score 8.6 (2.3); MELD 13.2(5.6); 25 impatiens; 55 alcoholics; 21 viral, 21 cholestatic etiology) were prospectively evaluated for the presence of HE. Patients with HE grades more 2 were excluded. Impatiens with complications of liver disease were included upon discharge when stable clinical conditions were reached. Two psychometric tests (number connection test A and B (NCT-A/B) were performed. Serum sodium and potassium as well as serum ammonia were assessed.

RESULTS: 32 % of patients had HE grade 1-2 and/or a NCT-A and /or B score more than 3SD of a control population.12.5% of patients had serum creatinine levels over reference values .Patients with vs. without creatinine over reference values (n=16) had more frequently HE and/or NCT –A and /or NCT-B more 3SD (68.8% vs. 32.3%, p=0.001) but did not differ in Child-Pugh score or etiology of cirrhosis (p>0.1). Patients with vs. without loop diuretics did not differ in creatinine values (p>0.1). In invariant analysis, the time needed to perform NCT-B was positively related to age (r=0.43, p <0.001), serum creatinine (r=0.45, p<0.05), serum potassium (r=0.2. p<0.05), Child –Pugh score (r=0.43, p=0.005), MELD (r=0.32, p=0.05), and hospital admission (p<0.05), but negatively to serum sodium (r=0.14, p<0.05) and cholestatic etiology (p<0.01). The time needed to perform NCT-B was independently correlated to age (r=0.27, p=0.001), serum creatinine (r=0.34, p<0.001), Child –Pugh score (r=0.27,p=0.001)and cholestatic etiology (r=0.18, p<0.005)Serum creatinine was related to the serum ammonia concentration (r=0.26, p=0.004).

CONCLUSIONS: Cognitive impairments seem to be related to renal dysfunction in patients with liver cirrhosis. Renal dysfunction might be implicated in the pathogenesis of hepatic encephalopathy.

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VARICEAL BAND LIGATION VERSUS BETA BLOCKERS FOR PRIMARY PREVENTION OF VARICEAL BLEEDING: AN UPDATED META –ANALYSIS

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BACKGROUND: Variceal band ligation (VBL) can reduce the rate of the first variceal bleed by 45-52% compared with beta-blockers (BB).An updated meta-analysis was performed incorporating 9 peer-reviewed randomized controlled trials.

METHODS: Relative risk (RR) using a fixed effects model was utilized. Sensitivity analysis using a random effects model was performed to assess consistency of results.

RESULTS:734 patients were studied (356,VBL;378,BB). The pooled RR significantly favored VBL for the first variceal bleed (0.61;95% CI,0.44-0.84) with the NNT of 11 (95% CI , 7-33), and for adverse events with treatment withdrawal(0.20;95%CI, 0.10-0.39) with the NNT of 9 (95% CI, 7-33). There was a trend towards reduced bleeding deaths with VBL (RR, 0.65; 95%ci, 0.35-1.18) There was no evidence of differences in overall mortality. There was no significant heterogeneity or publication bias, and outcomes were robust following sensitivity analysis.

CONCLUSIONS: VBL was superior to BB for preventing the first variceal bleed and resulted in fever adverse events.VBL has a role in patients unlike to comply with drug therapy, or unable to tolerate /bleed on BB therapy.

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UNDERREPORTING OF NONALCOHOLIC FATTY LIVER DISEASE IN DIABETIC PATIENTS WITH POORLY GLYCAEMIC CONTROL

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BACKGROUND: Patients with type 2 diabetes mellitus (T2DM) have an increased risk for developing nonalcoholic fatty liver disease (NAFLD). Moreover, poor glycaemic control

is associated with progression to advanced liver disease among NAFLD patients. The aim of this study was to evaluate the relationship between glycaemic control and NAFLD in T2DM patients.

MATERIAL AND METHODS: A total of 114 patients with T2DM were prospectively enrolled and were evaluated using Vibration-Controlled Transient Elastography (VCTE) with Controlled Attenuation Parameter (CAP) from June 2021 to December 2021. The presence of NAFLD was established using a cut-off value for CAP of 248 dB/m. Clinical features and laboratory data including glycated haemoglobin (HbA1c) were recorded in all patients. Subjects were stratified in two groups according to their HbA1c levels.

RESULTS: Seventy-six patients (66.6%) had HbA1c levels greater than 7 % (60.4% females, mean age of 56.15±10.42 years, mean BMI 26.73 ± 7.49 kg/m2). Among them, 54 (71%) were diagnosed with NAFLD and 28 (51.8%) patients had severe steatosis. Regarding patients with good glycaemic control, 14 (36.8%) of them had CAP score ≥ 248 dB/m. In group with poor glycaemic control, CAP score was positively correlated with waist to hip ratio (WHR) (r = 0.321, p = 0.043), body mass index (BMI) (r = 0.214, p < 0.026), fasting plasma glucose (r = 0.409, p = 0.012) and levels of triglycerides (r = 0.304, p = 0.038). There were significant statistical differences for alanine aminotransferase (ALT) (p = 0.01) in patients with liver steatosis and poor glycaemic control comparing with those with HbA1c <7 %.

CONCLUSION: Poorly controlled T2DM is associated with high prevalence of NAFLD, and this fact is underrecognized despite of risk of progressive liver disease. Therefore, it is important to develop screening strategies to identify patients with poorly glycaemic control, NAFLD and its complications.

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THE IMPACT OF INCREASED FIB-4 SCORE IN PATIENTS WITH TYPE II DIABETES MELLITUS ON COVID-19 DISEASE PROGNOSIS

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KEYWORDS: T2DM; COVID-19; FIB-4

INTRODUCTION: Emerging evidence suggests that patients with metabolic associated fatty liver disease (MAFLD) are prone to severe forms of coronavirus disease, especially those with underlying liver fibrosis. The aim of our study is to assess the association of increased FIB-4 score with COVID-19

(coronavirus disease 2019) disease prognosis.

MATERIAL&METHODS: We performed a prospective study on hospitalized patients with known type 2 diabetes mellitus (T2DM) and confirmed COVID-19, with imaging evidence of liver steatosis within the last year or known diagnosis of MAFLD. All individuals were screened for liver fibrosis with FIB-4 index. We evaluated the link between FIB-4 and disease prognosis.

RESULTS: Of 138 participants, 91.3% had MAFLD and 21.5% patients had high risk of fibrosis. In the latter group of patients, the number of severe forms of disease, the hospital stay length, the rate of ICU admissions and the number of deaths reported registered a statistically significant increase. The independent predictors for developing severe forms of COVID-19 were obesity (OR - 3.24; 95% CI, 1.46-5.32, p=0.003), higher values of ferritin (OR - 1.9; 95% CI, 1.17-8.29, p=0.031) and of FIB-4 ≥3.25 (OR - 4.89; 95% CI, 1.34-12.3, p=0.02).

CONCLUSIONS: Patients with high scores of FIB-4 have poor clinical outcomes and liver fibrosis may have a relevant prognostic role. Although the link between liver fibrosis and the prognosis of COVD-19 needs to be evaluated in further studies, screening for liver fibrosis with FIB-4 index, particularly in patients at risk, such as those with T2DM, will make a huge contribution to patient risk stratification.

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EPIDEMIOLOGY OF CHRONIC VIRAL HEPATITIS B/D AND C IN THE VULNERABLE POPULATION IN THE NORTH-EAST AND SOUTH-EAST REGIONS OF ROMANIA – INTERMEDIATE STAGE RESULTS IN THE LIVE(RO)2 - EAST SCREENING

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KEYWORDS: chronic viral hepatitis, epidemiology, vulnerable population

INTRODUCTION: In order to meet the requirements of the WHO, namely - the eradication of viral hepatitis by 2030, UMF "Grigore T. Popa" from Iasi together with ARAS and the Hospital "St. Spiridon" from Iasi, carries out since 2020 the project "LIVE(RO) 2 - Integrated regional program for prevention, early detection (screening), diagnosis and targeting treatment of patients with chronic liver disease secondary to viral infections with liver viruses B/D and C in the North-East and South-East regions". This study aimed to assess the epidemiological

characteristics of the vulnerable population in the eastern part of the country diagnosed with chronic B/D and C viral infection.

MATERIALS AND METHODS: Between July 2021 and May 2022, we performed a prospective screening of chronic viral hepatitis B/D and C in vulnerable people in the counties of North-East and South-East of Romania, within the national program LIVE(RO) 2 - EST. Rapid diagnostic tests were used to detect HBs antigen (HBsAg) and anti-HCV antibodies (HCVA): HBV (Wama Immuno-Rapid HBV®) and HCV (Wama Immuno-Rapid HCV®). Rapid test-positive patients were tested for HBV DNA and HCV RNA and those eligible under the national protocol were treated with antivirals.

RESULTS: The study included 55593 individuals tested rapidly, of which 2160 (3.8%) patients were tested positive (1120 women, 1040 men, mean age 55.86 ± 6.023 years, predominantly rural background - 76.19%). Of these, 1077 (49.8%) were HBsAg positive, 918 (42.5%) with HCV positive needle, 37 (1.7%) HBV/HCV coinfection and 128 (5.9%) HBV/VHD coinfection. HBV-DNA was performed in 724 (67.3%) individuals, of which 452 (62.5%) subjects > 2,000 children/ml. Also, 518 (54.3%) patients with HCV-positive Ac had detectable HCV RNA, of which 375 (72.3%) received antiviral treatment. Depending on the ethnicity, the prevalence of viral infection was 4.29% in Roma people and 3.23% in Romanian people. Among the vulnerable groups determined by work, inactive people (27.7%), uninsured people (11.2%), unskilled people (1.87%), unemployed people (0.6%) and people working in agriculture (0.59%) were predominantly tested. Among the special vulnerable groups, people with disabilities (3.99%), people addicted to alcohol (2.43%) and people with a minimum income (1.21%) were predominantly tested.

CONCLUSIONS: The high prevalence of B / D and C viral infection in the vulnerable population tested in the North-East and South-East Region of Romania compared to the rest of the population, indicates the significant viral spread of the infection in these people, a condition that requires further testing and the need for policies. public health in vulnerable groups to promote access to existing health services and early initiation of optimal antiviral treatment.

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QUANTITAVE ULTRASOUND METHODS FOR THE ASSESSMENT OF LIVER STEATOSIS USING CONTROLLED ATTENUATION PARAMETER AS REFERENCE METHOD

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KEYWORDS: liver steatosis, quantitative ultrasound (QUS), TAI, TSI

BACKGROUND: Liver steatosis can progress to nonalcoholic steatohepatitis and liver cirrhosis, becoming one of the leading indications for liver transplantation. Therefore, early detection and staging of steatosisis very important. In addition to Transient Elastography (TE) with Controlled Attenuation Parameter (CAP), several methods were developed for steatosisassessment. The aim of our study was to evaluate the feasibility of two new quantitative ultrasound (QUS) parameters, TSI (tissue scatter-distribution imaging) and TAI (tissue attenuation imaging) for steatosis diagnosis considering CAP as reference.

MATERIAL AND METHODS: A prospective study was conducted in which liver steatosis was assessedin 67 patients(65.7% men, mean age 55.6 ± 13.2 years), evaluated in the same session by QUS and CAP implemented on the following systems: Samsung Medison RS85 (CA1-7A probe) and FibroScan Compact M 530 (M and XL probes), respectively. For CAP, reliable measurements were defined as the median value of 10 measurements with IQR/M<0.3. For QUS, five consecutive measurements of TAI and TSI were acquired by a color-coded map overlaid on B-mode ultrasound. Attenuation coefficient and scatter-distribution coefficient were automatically calculated and reliable measurements were defined as a reliability index, R2 over 0.6.The cut-off value by CAP for identifying the presence of at least mild steatosis was 248 dB/m[1].

RESULTS: Reliable measurements by CAP and TAI/TSI were obtained in 100% of cases. Moderate correlations between steatosis assessment methods were observed: TAI vs. CAP r=0.67, TSI vs. CAP r=0.53, TSI vs. TAI, r=0.63. The best cut-off value for TAI to identify at least mild steatosis was >0.66(AUROC=0.87, p<0.0001, Se=81.2%, Sp=84.2%, PPV=92.9%, NPV=64%).The best cut-off value for TSI for identifying at least mild steatosis was >96.2(AUROC=0.81, p<0.0001, Se=81.2%, Sp=84.2%, PPV=88.6%, NPV=64%).

CONCLUSION: TAI and TSI are feasible methods for assessing liver steatosis, which moderately correlate with CAP measurements.

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COMORBIDITY ASSESSMENT IN THE VULNERABLE POPULATION DIAGNOSED WITH CHRONIC B/D AND C VIRAL INFECTION FROM THE NORTHEAST REGION OF ROMANIA – STAGE SCREENING RESULTS LIVE(RO) 2 – EAST

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KEYWORDS: chronic viral hepatitis, comorbidities, vulnerable population

INTRODUCTION: Chronic viral hepatitis B/D and C can be complicated by comorbid conditions that may influence treatment eligibility and outcomes. The aim of this study was to evaluate the presence of the most common comorbidities in patients diagnosed with chronic viral B/D and C infection using rapid diagnostic tests (TDR).

MATERIALS AND METHODS: Between July 2021 and May 2022, we performed prospective screening for chronic viral B/D and C infection in people in vulnerable groups (poor, uninsured, rural people, people in foster care, people without shelter, Roma people, people with disabilities, people suffering from alcohol and drug addiction) from different areas of North-Eastern Romania, during the national program for the elimination of viral hepatitis LIVE(RO) 2-EST using TDRs for hepatitis B virus (Wama Immuno-Rapid HBV®) and hepatitis C virus (Wama Immuno-Rapid HCV®). We also investigated the presence of comorbid conditions in patients tested positive and presented at the Institute of Gastroenterology and Hepatology in Iasi for the staging of liver disease and the establishment of antiviral treatment.

RESULTS: Our study included 1176 patients who came to a tertiary center for the staging of liver disease, of which 422 men (35.8%) and 754 women (64.1%), aged 35 to 83 years, with an average age of 56.32 years. The predominant source of origin was rural (73.1%). Of the patients with positive TDR, 635 (53.9%) of patients were detected with HBsAg, 521 (44.3%) of patients with anti-HCV antibodies, and 20 (1.7%) of patients with anti-HVD antibodies. Of these, 646 patients (54.9%) had at least one comorbid condition. The most common comorbidities were cardiovascular disease (21.5%), psychiatric disorders (11.5%), type 2 diabetes (8.9%), metabolic disorders (6%), thyroid disorders (5%) and cancer (2%). In addition, the presence of comorbidities was higher among patients with HCV infection than in those with HBV infection (64.9% vs. 48.5%, p = 0.014), while psychiatric disorders were most common in

patients with HBV/HVD coinfection (42.3%), most likely due to the Interferon regimen that has been administered in the past to 19 individuals.

CONCLUSIONS: Patients with chronic viral hepatitis B/D and C had a high prevalence of multiple comorbidities. Effective strategies are needed to manage these comorbid conditions as well as interdisciplinary collaboration to allow greater access to antiviral treatment and to reduce the future burden of advanced liver disease and its manifestations.

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POINT SHEARWAVE ELASTOGRAPHY TECHNIQUES FOR THE ASSESSMENT OF LIVER STIFFNESS

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KEYWORDS: liver stiffness measurements, pSWE, Auto pSWE

BACKGROUND: Non-invasive ultrasound-based techniques for liver stiffness assessment (LSM) were developed as an alternative to liver biopsy. Transient Elastography (TE) is the first method validated by several guidelines and recentlyother new methods were developed. The aimof this study was to evaluate the performance of two pointShear Waves Elastography (pSWE) techniques implemented in the same ultrasound system for liver stiffness assessment, using TE as reference.

MATERIALS AND METHODS: A prospective study was conducted, in which 271 consecutive patients with or without previously diagnosed liver disease were included.
LSM was evaluated by point Shear Wave Elastography (pSWEand AutopSWE) implemented on a Siemens ACUSON Sequoia system (Deep Abdominal Transducer-DAX) and by TE, using a FibroScan Compact M 530 system (M and XL probes).
For AutopSWE, 15 measurements/values are automatically obtained in a singleevaluation and the median and IQR aredisplayed. For p-SWEand TE, reliable measurements were defined as the median value of 10 measurements and IQR/M<0.3 for all probes. For significant fibrosis, a cut-off value byTE of 7 kPa was used, and for liver cirrhosis 12 kPa[1].

RESULTS: Valid LSM were obtained in all 271(100%) patients using both elastographic methods. A very good positive

correlation was found between the LS values obtained by TE and bothAuto pSWEand pSWE: r=0.78, p<0.0001; and between Auto pSWEand p-SWE: r=0.92, p<0.0001. The best pSWE and Auto pSWEcut-off value for significant fibrosis (F≥2) was 5.1 kPa (p-SWE: AUC- 0.81; Se-58.3%; Sp-94.6%; PPV-83.1%; NPV-83.5%; Auto pSWE: AUC- 0.82; Se-63.1%; Sp-90.4%; PPV-76.8%; NPV-84.4%) and for liver cirrhosis (F4) was 6.7 kPa (p-SWE: AUC- 0.92; Se-73.8%; Sp-94.3%; PPV-83.8%; NPV-95.3%; Auto pSWE: AUC- 0.93; Se-78.5%; Sp-97.8%; PPV-86.8%; NPV-96.1%).

CONCLUSION: The two techniques, pSWE and Auto pSWE have very good correlations with TE and similar performance for predicting significant fibrosis and liver cirrhosis in a mixed cohort of patients.

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IPATHOLOGIES DISCOVERED INCIDENTALLY IN PATIENTS WITH CHRONIC VIRAL INFECTION B / D AND C DIAGNOSED IN THE SCREENING PROGRAM LIVE (RO)2 – EAST

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KEYWORDS: B / D / C viral hepatitis, new pathologies, incidental discovery, screening

IINTRODUCTION: The overall burden of B / D and C viral hepatitis remains substantial, despite the major advances in the prevention and treatment of patients in recent years, due to comorbidities and complications associated with liver disease. In this context, the national screening program LIVE (RO)2 aims to further assess all patients identified as positive for one of the hepatitis B / D / C viruses.

OBJECTIVES: The study aimed to identify fortuitous pathologies discovered in patients with chronic viral B / D / C infection diagnosed in the LIVE (RO)2 screening program.

MATERIALS AND METHODS: We conducted a prospective study that included people from vulnerable groups (poor, uninsured, rural people, people in foster care, homeless, Roma population, people with disabilities, and suffering from alcohol or drug addiction) in different areas of North-Eastern Romania, between July 2021 - May 2022, during the national screening program LIVE (RO) 2-EAST. We also investigated the presence

of newly discovered conditions in patients who tested positive and directed to the Institute of Gastroenterology and Hepatology in Iasi for the staging of liver disease and the establishment of antiviral treatment.

RESULTS: The study group included 1176 patients, of which 422 men (35.8%) and 754 women (64.1%), aged between 35 and 83 years, with a mean age of 56.32 years. The predominant source of origin was rural (73.1%). Of the patients with positive RDTs, 635 (53.9%) patients were detected with HBsAg, 521 (44.3%) patients with anti-HCV antibodies, and 20 (1.7%) patients with anti-HVD antibodies. Of these, 215 patients (18.2%) were diagnosed with a new pathology associated with B / D / C viral infection. The most common pathologies discovered incidentally were liver cirrhosis (94, 43.7%), liver cysts (35, 16.2%), liver hemangiomas (29, 13.4%), gallstones (24, 11.1%), type II diabetes mellitus (T2DM) (15, 6.9%), uterine fibroids (9, 4.1%), hepatocellular carcinoma (7, 3.2%), choledochal lithiasis (2, 0.9%). In addition, the presence of fortuitous pathologies was higher among patients with HBV infection than in those with HCV infection (65.3% vs. 42.1%, p = 0.012). Among the risk factors associated with hepatocellular carcinoma (HCC) are chronic alcohol consumption (43%, compared to 19% in the group of patients without HCC), and the association of T2DM in 3 patients (31%, compared to 10% in the group of patients with HCC).

CONCLUSIONS: Patients with chronic B / D / C viral infection had a high prevalence of incidentally detected comorbidities, which necessitates the need for public health policies in vulnerable groups to promote access to existing health services to reduce the future burden of chronic diseases but also secondary complications of chronic liver disease.

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COMPARISON BETWEEN TWO 2D-SWE TECHNIQUES USING TRANSIENT ELASTOGRAPHY AS A REFERENCE METHOD FOR LIVER STIFFNESS ASSESSMENT

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KEYWORDS: liver stiffness measurements, 2D-SWE tehniques, fibrosis stages

BACKGROUND: Ultrasound-based liver elastography

techniques are non-invasive methods used for the assessment of liver stiffness (LS). In addition to Transient Elastography (TE), new methods were developed. Aim: to compare the performance of 2D-SWE technique implemented on two different ultrasound probes from different vendors for the assessment of liver stiffness measurements (LSM) using transient elastography (TE) as reference method.

MATERIAL AND METHODS: A prospective study was conducted in which LSM were performed in 201 consecutive patients with or without chronic liver disease, evaluated in the same session by 2D-SWE and TE implemented on the following systems: Siemens ACUSON Sequoia (5C-1 convex transducer and Deep Abdominal Transducer-DAX), Aixplorer Mach 30 (C2-1X convex transducer) and FibroScan Compact M 530 (M and XL probes). Reliable measurements were defined as the median value of 10 measurements and an IQR/M<0.3. For significant fibrosis a cut-off value for TE of 7 kPa was used, for advanced fibrosis 9.5 kPa and for liver cirrhosis 12 kPa.

RESULTS: From 201 patients, 198 patients had reliable measurements in all techniques and were included in the final analysis, mean age 54.8±13.3 years, mean BMI28.8 ± 5.0, 58% (116/198)men. 58.5% were without or with mild fibrosis, 14.1% had significant fibrosis, 6.2% had advanced fibrosis and 21.2% had liver cirrhosis. For significant fibrosis the performance was slightly better for 2D-SWE.SSI (AUROC=0.89, p<0.0001, >7.3 kPa, Se=85.1%, Sp=87.9%)followed by 2D-SWE.5C1 (AUROC=0.79, p<0.0001, >6.9 kPa, Se=33.7%, Sp=96.7%) and 2D-SWE.DAX (AUROC=0.78, p<0.0001, >6.3 kPa, Se= 36.4%, Sp=96.7%), p=0.01. For advanced fibrosis the best performance was slightly better by 2D-SWE.SSI (AUROC=0.92, p<0.0001, >8.8 kPa, Se=92.5%, Sp=91.9%), and by 2D-SWE.DAX (AUROC=0.86, p<0.0001, >7.6 kPa, Se= 38.8%, Sp=99.3%), followed by 2D-SWE.5C1 (AUROC=0.84, p<0.0001, >8.6 kPa, Se=38.8%, Sp=96.5%), p=0.02. For liver cirrhosis the performances were similar: 2D-SWE.SSI (AUROC=0.91, p<0.0001, >10.3 kPa, Se=92.8%, Sp=90.3%), followed by 2D-SWE.DAX (AUROC=0.90, p<0.0001, >10 kPa, Se= 23.8%, Sp=98.7%) and 2D-SWE.5C1 (AUROC=0.84, p<0.0001, >9.9 kPa, Se=33.3%, Sp=96.7%), p=0.10.The cut off values for predicting different stages of fibrosis ranged from 6.3-7.3 kPa for F2, 7.6-8.8 kPa for F3 and 9.9-10.3 for F4.

CONCLUSION: The performance of the evaluated 2D SWE techniques for liver fibrosis assessment was similar.

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POTENTIAL BIOMARKERS FOR DIFFERENTIATING ALCOHOLIC HEPATITIS FROM DECOMPENSATED CIRRHOSIS BY SERUM METABOLOMIC ANALYSIS

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BACKGROUND AND AIMS: Patients with alcoholic hepatitis (AH) have a high risk of short-term mortality. The diagnosis of AH relies on clinical and biochemical parameters, but it is impossible to differentiate from alcoholic related decompensated cirrhosis (ArDC) without liver biopsy. The main objective of this study was to assess the metabolomic fingerprint of AH; Secondary objective was to identify potential biomarkers to differentiate between the AH and ArDC.

METHOD: We performed an untargeted metabolomic profiling of blood serum from 34 patients with biopsy proven AH and 36 patients with ArDC, using high performance liquid chromatography and mass spectrometry. More than 300 metabolites were identified; Eighty-three molecules were selected for further analysis and the most significant biomolecules were selected to discriminate the AH versus ArDC phenotype and infection status.

RESULTS: Seventy-two percent of patients were male and 97% of them had cirrhosis. The main molecules that showed increased levels in AH group comparative to ArDC group were C16 Sphinganine-1-phosphate (S1P), Prostaglandin F1a/b (PGF1a/b), Cerotic acid and arachidic acid while Prostaglandin D2/E2 (PGD2/E2), Prostaglandin E2-ethanolamine (PGE2-EA), dinor cholic acid, 12-ketodeoxycholic acid 2-hydroxy stearic acid, D-Sphingosine decreased (1a).
In the multivariate analysis, PLSDA score plot showed a co-variance of 19.4%, with a good discrimination between AH and ArDC groups (figure 1b)
In the subgroup analysis, (infected AH and ArDC and non-infected AH and ArDC), a good discrimination was showed by S1P, with a p value = 1.49E-15, Mean Decrease Accuracy (MDA) >0.035 and an area value under ROC curve (AUC) of 0.984 (0.943-1) and PGD2/E2, which had a decreased level (p = 2.56E-1, MDA >0.025 and AUC 0.958 (0.898-0.994)) (Figure 1c,d). The semiquantitative analysis of the combination between S1P&PGE2 showed increased (95%) diagnostic accuracy to discriminate AH from ArDC, with 100% NPV and 100% Se.
In the AH group (n=34), overall mortality (during a median follow-up of 42 months) was 50%, while 1 month mortality was 12%. Half of the patients were treated with Corticosteroids, 76% of them being responders, as per Lille score at 7 days.
PLSDA score plot showed a moderate discrimination between patients who survived and those who died. Nevertheless, based on the VIP scores 10 molecules were identified, among which Oleamide and Ursodeoxicolic acid (OAMD and AUDC, both decreased in the deceased group) showed MDA values > 0.0045 and AUC of 0.746 (p=0.005 and 0.01, respectively). In the semiquantitative analysis, AUDC was correlated with both MELD and Maddrey scores (r=-0.385, p=0.05, and r=-0.540, p=0.006, respectively) and showed an association with biopsy proven canalicular cholestasis (chi2 test = 5.83, p=0.016,

Fischer exact test =0.05). OAMD was only associated with hepatic cholestasis (chi2 test = 5.18, p=0.023, Fischer exact test =0.045). None of the compounds were associated with either fibrosis, steatosis, ballooning, inflammation, neutrophil infiltration, or megamitochondria. Based on AUC analysis, cutoff values for both OAMD and AUDC were calculated (<18.6 arbitrary units (AU), and <15 AU) which had an accuracy of 77.27% and 66.7%, respectively to predict overall mortality (Kaplan-Mayer log rank values 0.053, and 0.035, respectively). Notably, the NPV for AUDC predicting mortality was 100%.

CONCLUSION: Sphingolipids are now known to regulate important physiological cellular processes (1). Especially, S1P has anti-necrotic and anti-inflammatory effects via TNF-a signaling pathway; In an ischemia/reperfusion (I/R) model, plasma S1P levels were noted to be decreased after hepatic I/R injury (2). Prostaglandins have protective effects by inhibiting the generation of reactive oxygen species and regulating the production of inflammatory cytokines. In this study, the prostaglandin levels were decreased in patients with AH showing that beta-oxidation could be a valuable target pathway.
Oleamide, and especially AUDC are promising potential biomarkers to predict poor outcome in patients with severe AH. Further studies are needed to confirm this hypothesis.

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NONINVASIVE BIOLOGICAL FIBROSIS SCORES- USEFUL TOOLS FOR EVALUATING NAFLD PATIENTS

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KEYWORDS: elastography, non-invasive fibrosis scores, liver fibrosis

BACKGROUND AND AIM: Several noninvasive biological scores were developed to predict liver fibrosis (LF) in patients with non-alcoholic fatty liver disease (NAFLD). We aimed to assess the correlation between AST to Platelet Ratio Index (APRI), Fibrosis 4 (FIB-4) Index and BARD score vs. Transient Elastography (TE), in a group of NAFLD patients.

MATERIAL AND METHOD: We conducted a prospective study, which included 74 patients with NAFLD, (mean age 54.5 ±11.6 years, 49.4% female). All patients were evaluated clinically (Body mass index-BMI, waist circumference), by serum markers (aspartate transaminase-AST, alanine aminotransferase-ALT, platelets count, gamma glutamyl transferases-GGT, triglycerides), as well as by TE (FibroScan Compact M 530). Based on specific formulas, we calculated APRI, FIB-4 index and BARD scores [1].To discriminate advanced fibrosis(F≥3) by means of TE, we used the cut-off value of 9.7kPa [2].

RESULTS: Out of 74 patients with NAFLD, 10.8% (8/74) patients had advanced fibrosis based on TE measurements. Using APRI cut-off <2 (100% patients) to rule out advanced fibrosis,we found a NPV of 91.7%. A weak, but significant correlation between LS assessed by TE and APRI score was found (r=0.31, p<0.0001). Using FIB 4 cut-off <2.6 to rule out advanced fibrosis (91.2% - 68/74 patients), we found out a NPV of 92.8%. FIB 4 score was weakly correlated to TE measurements(r=0.20, p=0.006). Regarding BARD score, 36.4% (27/74) of patients had a BARD score <2, used to rule out advanced fibrosis, with a NPV of 100%.

CONCLUSION: APRI, BARD and FIB-4 can rule out advanced fibrosis. These simple scores could be the basis for evaluation on LF in order to evaluate the need for further investigations .

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HEPATITIS DELTA – ONE OF THE BIGGEST HEALTHCARE CHALLENGES IN ROMANIAN POPULATION

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KEYWORDS: hepatitis delta, epidemiology, risk factors.

INTRODUCTION: Hepatitis delta is the most severe form of chronic hepatitis, which progresses rapidly to cirrhosis and hepatocellular carcinoma. In Romania, HBV and HDV coinfection represents a major public health problem with a high prevalence among HBV chronic hepatitis and still the leading indication for liver transplantation.

METHODS: This is a prospective study conducted for 4 months in our tertiary hepatology centre. All patients admitted with HBV+HDV infection were included. Sociodemographic data and risk factors for HBV+HDV infection were collected via a questionnaire. Additionally, disease stage, complications and severity (MELD-Na score) were evaluated.

RESULTS: From a total number of 113 patients included, 53.1% were males, with a mean age of 48.5+/-11.4, with 71.4% from urban area and 39.3% with higher education. On admission, 42.5% had chronic hepatitis, 36.3% had compensated cirrhosis and 21.2% had decompensated cirrhosis. The most frequent

complications of cirrhosis were upper gastrointestinal bleeding (31.4%), infections (31.4%) and portal vein thrombosis (22.9%). 31.3% of the subjects were listed for liver transplant and 34.3 % of the patients posttransplant. Mean MELD Na was 13.3+/-6. Detectable HBV DNA and HDV RNA were found in 48.8% and 87.3% of the subjects. On presentation, 35.4% of the patients were already on entecavir/tenofovir and 55.4% of the patients had previous treatment with PegIFN. The most frequent risk factors for HBV+HDV infection were: frequent hospitalisations (92.5%), surgical interventions (71.7%), lack of anti-HBV vaccination (79.2%), blood transfusions (30.2%) and multiple sexual partners (30.2%).

CONCLUSIONS: The majority of patients presented with chronic hepatitis and compensated cirrhosis, thus gaining access to the new emerging therapies would be a major step further in order to try to prevent disease progression and complications of cirrhosis. The identified risk factors reemphasize the need for HBV immunization for the whole population, as well as the need for screening programs.

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ULTRASOUND GUIDED MICROWAVE ABLATION FOR METASTATIC LIVER TUMORS – A SINGLE CENTER EXPERIENCE

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KEYWORDS: microwave ablation, radiofrequency ablation, liver metastases, intraoperative ultrasound, percutaneous ultrasound

INTRODUCTION: Microwave (MWA) thermal ablation is a well known alternative to radiofrequency for the treatment of liver tumors. In secondary liver lesions the indications had expanded beyond colorectal cancer metastases. Our study pursues clinical experience of percutaneous and intraoperative ultrasound guided MWA ablation as a regional treatment for different secondary liver tumors in terms of progression free (PFS) and overall survival (OS) and identification of predictors that may influence these.

MATERIALS AND METHODS: Chemo naïve or pretreated patients with liver metastases secondary to neoplasms with different primary sites were included in the study. The Medtronic Microwave Ablation system was used together with a 14G ablation antenna and an active tip of 3.7cm, and 3cm respectively. Power and time were set for every lesion depending on the size. Needle tract ablation was performed every time.

RESULTS: Baseline data from 19 patients attended from December 2018 to October 2021 was recovered and analyzed in a retrospective, observational and interventional nonrandomized study. The median age was 62 yo (29-72) including 7 (36.8%) women. Indications were represented by one or multiple metastases from: colorectal cancer (12 patients), ovarian cancer (2), neuroendocrine tumor (2), breast cancer (1), gastrointestinal stromal tumor (1) and esophageal adenocarcinoma (1). Surgical approach was performed in 12 (63.2%) cases and percutaneous in 7 (36.8%) cases. The median tumor size was 30 mm (16-80) with a median number of nodules 2 (1-11). The median follow up was 13 (4-33) months. Every additional nodule is associated with a 30% risk of progression. Median PFS was 20 months and for OV 28.23 months.

CONCLUSIONS: MWA is safe and effective in metastatic liver metastases with PFS and OS rates similar to patients that undergo surgery. Expanding the indication for secondary lesions from different types of neoplasms requires a larger cohort of patients and longer follow-up.

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PREDICTIVE EVOLUTIONARY FACTORS FOR THE PROGNOSIS OF ALCOHOLIC CIRROSIS

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KEYWORDS: alcoholic liver cirrhosis, mortality, prediction.

IINTRODUCTION: Alcoholic cirrhosis (AC) is a disease with multiple complications, associated with poor prognosis and significant mortality. Identifying risk factors is important to ensure effective treatment and increase life expectancy. We aimed to evaluate the predictive role of complications for mortality in AC.

MATERIAL AND METHOD: We retrospectively analyzed 1429 patients with alcoholic cirrhosis hospitalized between January 2019 and April 2022 in the Institute of Gastroenterology and Hepatology Iasi. The electronic medical record was interrogated to obtain information about demographic data, complications, comorbidities and prognostic scores MELD-Na (Model for end stage liver disease-sodium) and CTP (Child Turcotte Pugh). Based on uni- and multivariate analysis, independent predictors of mortality were identified.

RESULTS: The mean age at diagnosis was 56.32 ± 11.45 years,

with variations between 25-92 years, and a ratio of 2.1: 1 in favor of males. There were 296 deaths (20.8%), majority related to the first hospitalization (208/14.6%). Complications of the disease, univariate analyzed, negatively affect the survival rate, significant values being related to infections (sepsis, RR=4.09; OR=13.15, p=0.001; spontaneous bacterial peritonitis RR=2.34; OR=3.35; p <0.001) and hepato-renal syndrome (RR=3.01; OR=2.57; p<0.001). In patients with a CTP class C score (85.1%; 12.32±1.34) the risk of death was 5 times higher (RR=5.42; OR=7.74; p<0.001) compared to compensated patients (0.7%, RR=0.04; OR=0.03; p<0.001).The multivariate analysis showed that 1/4 of deaths at the first hospitalization were caused by the association of digestive hemorrhages with infections and hepatic encephalopathy (R2 adjusted =0.227; p=0.001).

CONCLUSIONS: The prognosis of the disease is negatively influenced by the worsening of liver dysfunction and the appearance of complications. The main predictors of mortality are infections and hepato-renal syndrome. Improving compliance and strict application of specific follow-up and treatment strategies could contribute to a better prognosis of patients with alcoholic cirrhosis.

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IMPACT OF THE COVID-19 PANDEMIC ON METABOLIC SYNDROME IN COHORT OF LIVER TRANSPLANT RECIPIENTS

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KEYWORDS: metabolic syndrome, COVID-19 pandemic, liver transplantation

INTRODUCTION: Liver transplant patients had an increased risk during the COVID-19 pandemic, both due to immunosuppressive therapy and associated comorbidities. The relationship between metabolic syndrome and the COVID-19 pandemic is dual, with an increase in the metabolic syndrome rate and the increased risk of patients with metabolic syndrome for developing severe forms of COVID-19 infection.

MATERIAL AND METHOD: A cohort of 62 patients who received a liver graft between 2014-2017 was followed prospectively, both before and after transplantation by blood tests, abdominal ultrasound and Fibroscan with CAP module. The pre-pandemic (2019) and post-pandemic (2022) data were compared to assess the effect of the measures implemented in a population with an increased metabolic syndrome incidence. Data was analyzed in IBM SPSS Statistics, version 26.

RESULTS: In the studied population, the majority of patients are men (62.3%) with an average age of 56 years and an incidence of metabolic syndrome of 53.3%.
Using the paired t-test function, no statistically significant differences were observed between the values of ALT (p = 0.18), AST (p = 0.71) and triglycerides (p = 0.38), and no differences in the degree of liver fibrosis assessed by both Fib-4 (0.49), as well as by Fibroscan (p = 0.37) between patients with metabolic syndrome and those without by comparing pre and postpandemic data.
The difference was observed using the same comparison analysis between total serum cholesterol values (p = 0.03) - a component of the Framingham cardiovascular risk score and CAP assessment (p <0.01), with significantly increased post-pandemic values.

CONCLUSION: The effect of the COVID-19 pandemic on liver transplant patients increased the severity of the metabolic syndrome (by increasing the degree of hepatic steatosis and cardiovascular risk score), but without increasing fibrosis, demonstrating the lack of direct impact on the graft, but increasing the risk of cardiovascular complications.

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EVALUATION OF HEPATIC PATHOLOGY IN PREGNANCY WITH PREECLASMPSIA AND HELLP-SYNDROME

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KEYWORDS: preeclampsia, HELLP, liver enzymes.

IINTRODUCTION: Monitoring of indicators of liver damage in pregnant women with preeclampsia is important for early detection of their change with prompt implementation of measures to prevent hemolysis syndrome, elevated liver enzymes and low platelet count (HELLP).

AIM: To study the peculiarities of liver lesions among pregnant women who developed HELLP syndrome compared to those with preeclampsia, who did not present diagnostic criteria for HELLP syndrome.

MATERIAL AND METHOD: The study group (LS) consisted of 34 pregnant women diagnosed with HELLP syndrome: 9 cases - class 1 (26.47%); 11 cases - class 2 (32.35%), 8 cases - class 3 (23.52%) and 4 cases (11.76%) cases of incomplete HELLP

syndrome. Comparison group (LC) - 10 pregnant women with preeclampsia without HELLP syndrome criteria.

RESULTS: Liver enzyme levels in LS subjects were higher versus LC, respectively ALT: 130.9 ± 45.6 U / L and 24.8 ± 2.6 U / L (p <0.001); AST: 156.3 ± 59.2 U / L and 26.8 ± 2.7 U / L (p <0.001) and LDH: 911.8 ± 165.4 U / L and 170.3 ± 22.6 U / L L (p = 0.0028). Fibrinogen values were significantly (p = 0.005) elevated in LS (3.8 + 0.9 g / l) compared to LC (3.0 ± 0.5 g / l). In LS, HELLP-syndrome sublots, classes 1, 2, 3, positive correlations were established between nictemeral proteinuria with ALAT (r = 0.76, p = 0.04) and ASAT (r = 0.77, p = 0.046); between nictemeral proteinuria and LDH (r = 0.64, p = 0.048) and negative correlations between platelets and nictemeral proteinuria (r = -0.65, p = 0.037), between platelets with ALT (r = -0.87, p = 0.02) and with AST (r = -0.86, p = 0.021). In cases with incomplete HELLP, positive correlations were also established between nictemeral proteinuria with LDH (r = 0.42, p = 0.038), ALT (r = 0.54, p = 0.025) and AST (r = 0, 56, p = 0.024) and negative correlations between platelets with ALT (r = -0.63, p = 0.212), AST (r = -0.63, p = 0.021) and nictemeral proteinuria (r = -0, 67, p = 0.017).

CONCLUSIONS: Detection of changes in liver damage in pregnant women with preeclampsia is important for the early application of measures to prevent complications.

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A PROSPECTIVE, RANDOMIZED HEAD-TO –HEAD STUDY OF EFFICIENCY AND SAFETY OF PHOSPHOLIPIDS VERSUS SYLIMARIN IN NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD)*

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KEYWORDS: Nonalcoholic fatty liver disease, Silymarin, Phospholipids

IINTRODUCTION: Nonalcoholic fatty liver disease is an entity with a growing incidence, and the validation of an effective and safe drug treatment is extremely important. The purpose of this study is to compare 2 dietary supplements in the treatment of NAFLD.

METHODS: Between January 2020 and May 2022, 75 patients with NAFLD were randomized to receive either Silymarin 150mgx2/ day (35 subjects) or Phospholipids (Fortifikat forte) 825 mgx2/ day (40 subjects) for 6 months. All subjects received an individualized low-calorie and hypolipidemic diet and the recommendation to do a supervised progressive aerobic workout. Assessment of the severity of steatosis and liver fibrosis was performed using Fibroscan with CAP at the beginning and at the end of treatment.

RESULTS: At inclusion in the study, the 2 groups were statistically comparable in terms of age, sex, BMI, AST, ALT, ALKP, GGT, total bilirubin, cholesterol, triglycerides, fibrosis and steatosis. After 6 months of treatment, a more significant improvement in transaminases was obtained in the Phospholipid arm compared to the Silymarin arm: AST decreased from a median of 40.5 IU / l to 25.5 (compared to 35.5→37.5) –p-value 0.03, ALT decreased from 59.5 to 41.5 (compared to 38.5→33.5) -p-value 0.05. Triglycerides decreased significantly in the Phospholipid arm (from a median of 141 mg/dl to 120) compared to the Silymarin arm (increased from a median of 129→147 mg/dl) - p = 0.01. The other laboratory parameters did not differ significantly between the two groups. In the Phospholipid arm a 1.1 kPa decrease in liver stiffness was obtained after 6 months of treatment (from a median of 8KPa to 6.9 KPa), while in the Silymarin arm the stiffness increased with 0.7 KPa (from 7.2 to 7.9 KPa) - p = 0.1. The reduction in hepatic steatosis was comparable between the 2 groups: it decreased with 10% of the initial value.

CONCLUSIONS: Treatment with phospholipids is superior to treatment with silymarin in NAFLD in terms of improving laboratory parameters, and has a tendency to improve liver fibrosis estimated by Fibroscan.

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A NON-INVASIVE MODEL FOR PREDICTING VARICEAL BLEEDING

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KEYWORDS: Cirrhosis, Variceal Bleeding, Spleen Elastography

INTRODUCTION: Variceal upper gastrointestinal bleeding is still one of the most important gastroenterological emergencies, with significant mortality. A non-invasive score to more accurately identify cirrhotic patients that are at significant risk would be useful, as it would reduce the number of endoscopies performed in patients that are not at immediate risk, reducing medical costs and patient discomfort.

AIM: Development of a non-invasive score to predict risk of variceal bleeding.

METHODS: A study lot of 154 cirrhotic patients was tested for various blood tests (including biochemistry tests, complete blood count and coagulation tests), ultrasonographic and elastography parameters (spleen and liver elastography using the Acoustic Radiation Force Impulse type of elastography). The patients were split into two groups, based on endoscopy results: group I – patients at risk for variceal bleeding, and group II – patients not at immediate risk for bleeding. The non-invasive parameters' ability to distinguish between the two groups was assessed. The risk for variceal bleeding was assessed as either the presence of varices of grade III or above, or as the presence of signs of imminent bleeding (whale signs, red spots etc.). Statistical Methods used included univariate analysis (Chi Square test, Independent Samples T test, Mann-Whitney test). Odds ratios and p-values were calculated for each parameter. A custom model was built using logistic regression and the accuracy was measured using a ROC curve.

RESULTS: Variables with significant results in univariate analysis included INR ($p = 0.002$), spleen diameter ($p = 0.001$), spleen elastography ($p < 0.001$), aspartate aminotransferase ($p = 0.019$), thrombocyte count ($p = 0.007$). The model was built using the most significant parameters – spleen elastography, INR, spleen diameter, and had an area under the ROC of 0.983.

CONCLUSION: A complex association of multiple parameters may be useful in predicting variceal bleeding and non-invasively identifying patients at risk.

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ASSOCIATION BETWEEN HLA ZYGOSITY AND CHRONIC HEPATITIS B VIRUS INFECTION IN ROMANIAN PATIENTS

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KEYWORDS: HLA genes, zygosity, hepatitis B virus

INTRODUCTION: Hepatitis B virus (HBV) is an important cause of chronic viral infection, cirrhosis, and hepatocellular carcinoma. The human leukocyte antigen (HLA) system is highly polymorphic and influences the natural history of HBV infection through the ability of HLA molecules to trigger immune responses in pathogen infections. Genetic HLA heterozygosity is thought to enhance resistance of hosts to infectious diseases, and offers positive outcomes of infection with either hepatitis B virus or human immunodeficiency virus (the "heterozygote advantage"). Revealing HLA gene polymorphisms in patients with chronic HBV infection by next-generation sequencing could help to better understand the immune pathogenesis and the clinical course of the disease.

PATIENTS AND METHODS: We have enrolled 190 patients with chronic HBV infection (positive for HBs Ag and total anti-HBc antibodies). The control group consisted of 200 bone marrow volunteer donors. None of the donors reported a personal history of cancer, or any HLA-associated disease, including chronic infections or autoimmune diseases. The HLA typing for all the patients was performed using next-generation sequencing method provided by Immucor (Mia Fora NGS Mflex) run on Illumina system platform.

RESULTS AND CONCLUSIONS: Our preliminary results showed that homozygosity at HLA-B, HLA-DPA1 and HLA-DRB1 loci was associated with risk of persistent HBV infection compared to the healthy control group.
HLA molecules through their role in regulating innate and adaptive immune responses could have different impact on pathogenesis of chronic HBV infection in our Romanian patients.

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BIOMARKERS OF INTESTINAL BARRIER DYSFUNCTION IN LIVER DISEASES (PRELIMINARY DATA FROM "BIOHEP PROJECT")

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KEYWORDS: liver cirrhosis, liver steatosis, flow-cytometry, duodenal biopsy, T cells, interleukins, cellular apoptosis, reactive oxygen species

INTRODUCTION: The permeability of the intestinal barrier plays an important role in the health of the liver, the gut-liver axis being intensively studied in recent years.

OBJECTIVES: To explore the alterations in immune cell composition in intestinal biopsies in patients with liver cirrhosis as compared with patients with liver steatosis.

MATERIALS AND METHODS: Patients with liver steatosis based on elastography (Fibroscan CAP) and patients with liver cirrhosis (based on clinico-biological pattern combined with elastography) were enrolled from January to May 2022. Duodenal biopsies samples were collected during screening upper digestive endoscopy. Flow cytometry was used to analyze immune cell composition in duodenal samples.

RESULTS: A total of 53 eligible patients were included for

final analysis, 21 patients in the liver cirrhosis (LC) group and 32 patients in the liver steatosis (LS) group. Among the two groups, the proportions of CD4+ and CD14+ T-cells were greatest in LS group (p = 0.038 and p = 0,021 respectively). Analysis of biopsy samples showed a higher proportion of IL-2 and IL-6 (proinflammatory cytokines) levels in patients in the LS group. No significant differences regarding cell apoptosis was observed between two groups (p = 0.862). Flow cytometry analysis showed higher reactive oxygen species (ROS) activity in the duodenal samples taken from liver cirrhosis patients.

CONCLUSIONS: The composition of immune cells in duodenal biopsies of liver cirrhosis patients were distinct from those with liver steatosis. The observed differences may be related to the different permeability of the intestinal barrier in the two conditions studied and help us to better understand the immunodepression status of patients with liver cirrhosis. These differences could be a starting point for future research aimed at preventing the natural evolution of hepatic steatosis to liver cirrhosis.

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NONTUMORAL PORTAL VEIN THROMBOSIS IN PATIENTS WITH HEPATITIS C VIRUS AND SUSTAINED VIROLOGICAL RESPONSE - A FURTHER CHALLENGING CONSEQUENCE OF LIVER CIRRHOSIS

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KEYWORDS: direct antivirals, sustained virologic response, thrombosis

INTRODUCTION: The advent of direct-acting antivirals (DAAs) is a major breakthrough in hepatology representing the therapeutical standard of care in patients with chronic hepatitis C virus infection. Despite high rates of sustained virological response (SVR), DAAs therapy doesn't eliminate the risk of thrombotic events. We aimed to assess the prevalence of nontumoral portal vein thrombosis (PVT) after SVR.

MATERIAL AND METHODS: We prospectively analyzed a cohort of patients with HCV-related liver cirrhosis treated with paritaprevir/ritonavir, ombitasvir and dasabuvir (PrOD) ± ribavirin and ledipasvir/sofosbuvir (LED/SOF) ± ribavirin for 12/24 weeks, in a gastroenterology center from Romania,

between January 1st 2016 and July 1st 2021. All patients with presumption of thrombosis were evaluated by vascular Doppler, abdominal ultrasound and confirmed by CT scan.

RESULTS: The study included 730 patients treated with DAAs, of which 35 were diagnosed with non-malignant PVT after-SVR (15 men and 20 women, mean age 57.86 ± 7,068 years), corresponding to a prevalence of 4.8%. The mean time from SVR to complication was 290.00 ± 116.639 days. Most patients with nontumoral PVT received LED/SOF (71.4%), while the rest received PrOD (28.6%). During the study, an improvement in the Child-Pugh and MELD score was observed at the SVR. The evolution changes slightly at the 48-week assessment, with a slight increase in the proportion of patients in the Child B class and MELD ≥ 15. The pro- and anticoagulant factors evaluated reflect the classic hemostatic profile of patients with liver cirrhosis and PVT, characterized by increased FII, FVIII and FvW and decreased anticoagulant factors (PC, PS, ATIII).

CONCLUSIONS: We conclude that thrombotic events in patients with HCV-related liver cirrhosis treated with DAAs are not influenced by the variations of coagulation parameters, rather correspond to the hypercoagulability status and the natural evolution of the cirrhotic patient.

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EVALUATION OF BODY FAT PERCENTAGE IN LEAN NAFLD PATIENTS USING CUN-BAE

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KEYWORDS: CUN-BAE, lean NAFLD, body fat percentage

BACKGROUND&AIM: Non-alcoholic fatty liver disease (NAFLD) has become the most common cause of chronic liver disease, its growing prevalence being mostly associated with the obesity pandemic and other metabolic conditions. NAFLD is also present in normal weight patients (body mass index (BMI) ≤25 kg/m²) – lean NAFLD with no clear risk factors, but lipids accumulation and increased body fat percentage (BF%) may play an important role in its development. Clinica Universidad de Navarra-body adiposity estimator (CUN-BAE) can be used to assess the BF%, when more accurate means are unavailable. The aim of this study was to evaluate the correlation between Vibration Controlled Transient Elastography (VCTE) with Controlled Attenuation Parameter (CAP) values and CUN-BAE.

MATERIAL AND METHODS: 141 lean patients with NAFLD

diagnosed by VCTE with CAP were enrolled between January 2021 to March 2022. Clinical and biochemical data were collected for all participants. BMI and CUN-BAE were calculated.

RESULTS: In total, 141 patients (61.2% males) were included in the final analysis. According to the CUN-BAE cut-offs for BF%, there were 44 (31.2%) normal weight patients, 65 (45.6%) overweight and 32 (23.2%) obese individuals. Subjects with high CUN-BAE values had a higher prevalence of dyslipidemia (p=0.035) and type 2 diabetes mellitus (p=0.039). A significant stabistical difference can be seen between the two groups regarding total cholesterol (p=0.039), serum creatinine (p=0.047) and fasting plasma glucose (p=0.035) values. The mean value of liver steatosis for the overall cohort 272 ± 26.3 dB/m. There was a strong positive correlation between CUN-BAE values and age (r=0.532, p<0.001), CAP value (r=0.372, p=0.041) and total cholesterol level (r=0.237, p=0.041).

CONCLUSION: Although lean NAFLD patients have a normal BMI, their BF% can correspond to overweight or obese status. BF% assessment with CUN-BAE can be an accessible tool in identifying lean subjects at risk for developing NAFLD and other metabolic disorders.

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CONTRAST-ENHANCED ULTRASOUND AND ARTIFICIAL INTELLIGENCE IN THE EVALUATION OF LIVER TUMORS

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KEYWORDS: artificial intelligence; liver tumors; contrast-enhanced ultrasound.

INTRODUCTION: Standard ultrasound and contrast-enhanced ultrasound (CEUS) are the most widely used methods for the evaluation of liver tumors and they represent an extension of the anamnesis and clinical examination of the patient. Artificial intelligence (AI) has been introduced in ultrasound imaging and may improve diagnostic accuracy.

MATERIALS AND METHODS: In this paper, we propose a deep-learning system to assess hepatologists in diagnosing liver tumors, using CEUS, clinical data and AI methods. We included 49 patients with benign or malignant liver tumors evaluated with CEUS in the Gastroenterology Clinic from the

Emergency Clinical Hospital of Craiova, between February 2, 2018 and December 17, 2020.

RESULTS: In the first step, we trained a model for image segmentation in order to extract the time-intensity curve. Then, we used the features extracted from TIC and clinical data to train a second deep learning model, represented by a connected neural network. We compared the performance of the AI method with two hepatologists with high expertise in ultrasound and CEUS of the hepatobiliary system. One of them was aware of the patient's clinical data, while the other performed a blind assessment for which the only data available was the presence of underlying liver disease. For the blinded evaluation, we have obtained a sensitivity of 0,81 and a specificity of 1, while the clinician who had acces to the clinical information obtained a sensitivity of 0,87 and a specifity of 1. The AI-based software obtained a sensitivity of 0,82 and specificity of 0,93.

CONCLUSIONS: The AI method demonstrated a reliable diagnostic accuracy and it may be used in clinical practice to assess liver tumors diagnosis.

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INFLUENCE OF CIRRHOSIS IN PATIENTS WITH INTRAHEPATIC CHOLANGIOCARCINOMA RECEIVING CHEMOTHERAPY

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INTRODUCTION: Cirrhosis is a risk factor for development of intrahepatic cholangiocarcinomas (CCi). However, its impact on stadium management advanced disease is not established.

PATIENTS AND METHODS: Retrospective Analysis of patients treated with systematic chemotherapy for Iccs in the first line of treatment in the medical oncology department at the Paolo Giaccone university hospital in Palermo.

RESULTS: We collected 110 patients, 55 (50%) patients had cirrhosis (74.5% with proof anatomopathologic). The main etiologies of cirrhosis were alcohol for 17 patients (31%), non-steatohepatitis alcoholic for 10 patients (18%) and a mixed etiology related to alcohol and dysmetabolic syndrome for 9 patients (16%). 62 (56.4%) patients received chemotherapy based on of gemcitabine and cisplatin, 34 (31%) patients received gemcitabine and oxaliplatin and 7 (6.4%) received gemcitabine alone, with no difference between cirrhotic and non-cirrhotic patients (p=0.38). Cirrhotic patients received less secondline treatment (22% 50%, p=0.001). Cirrhotic patients had more hematologic toxicity grade 3/4 than noncirrhotic

patients (38% 20%, respectively, p=0.014), and also more toxicity not hematologic grade 3/4 (28% 15%, respectively, p=0.048). Overall survival was significantly shorter in cirrhotic patients; median: 9.0 13.8 months for non-cirrhotic patients (HR = 1.54 ; p = 0.014).

CONCLUSION: Cirrhosis was common among patients with intrahepatic cholangiocarcinoma, and has had a detrimental impact on the course of treatment with an increase in toxicity related to chemotherapy and shorter overall survival.

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DOPPLER ULTRASOUND AND INTIMA MEDIA THICKNESS EVALUATION IN ULCERATIVE COLITIS: MORE THAN AN ADENOMATOSIS PREDICTOR, A TOOL FOR EVERYDAY MONITORING

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KEYWORDS: major LARS, minor LARS, LARS treatment

INTRODUCTION: In inflammatory bowel disease, inflammation may play a role in the progression of atheromatosis. Endothelial dysfunction is mediated by pro-inflammatory cytokines but also by an increased level of CRP which is involved in the expression of adhesion molecules and atheroma plaque rupture.

AIM: We decided to use a well-established method (Doppler ultrasound with mean intimate index measurement) to detect early atheromatosis in order to see if there is an increased incidence of endothelial lesions in patients with RCUH treated with biological or conventional therapy and try to validate this method as a tool in proactive monitoring of patients.

MATERIAL AND METHODS: We prospectively analyzed 25 patients with RCUH with a mean age of 40 years, 16 with biological treatment. The student t test, the Mann Whitney U test and the ANOVA test were used to compare continuous variables.

RESULTS: A discriminant analysis was performed with the presence of atheroma plaque as a dependent variable and several predictor variables, such as age, triglycerides, cholesterol of patients with ulcerative colitis. 13 valid cases were analyzed. Univariate ANOVA analyzes revealed that the presence or absence of atheroma plaque differs in the variables predicting the age, INR and ecoIMT of patients with ulcerative colitis (in the age of patients ($F = 8.511$, degrees of freedom = 11, $p = 0.014$) Patients 'INR ($F = 50,437$, degrees of freedom = 11, $p = 0.001$) and Patients' ecoIMT ($F = 7,398$, degrees of freedom = 11, $p = 0.020$) In another analysis of discriminatory function s -introduced the predictor variables specific to measuring the evolution of ulcerative colitis, respectively Mayo and Mayo E (age ($F = 0.8511$, degrees of freedom = 11, $p = 0.014$), INR ($F = 50.437$, degrees of freedom = 11, $p = 0.001$),

ecoIMT ($F = 7.398$, df = 11, $p = 0.020$) and Mayo ($F = 14.885$, degrees of freedom = 11, $p = 0.003$).

CONCLUSIONS: Age, endoscopic activity, and INR were correlated with predictive ultrasound changes for atheromatosis. Strengths are the prospective nature and statistical analysis of patients (part of a group of 61 patients and 20 controls) and weaknesses that most patients were in remission and treated with biologicals, which could create bias in the sense of reducing the atherosclerotic risk directly correlated with active inflammation.

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NON-ALCOHOLIC FATTY LIVER DISEASE - PREDICTIVE MODELS FOR OUTPATIENT EVALUATION

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KEYWORDS: nonalcoholic fatty liver disease, hepotocytolysis, dysmetabolic syndrome

INTRODUCTION: The evaluation of non-alcoholic fatty liver disease (NAFLD) currently used in the outpatient setting allows differentiated diagnoses that cover the spectrum of NAFLD entities.

THE AIM: To identify predictive models for NAFLD applicable to outpatients.

MATERIAL AND METHOD: Patients with a positive history of diabetes, hypertension, dyslipidemic syndrome, clinic with obesity, laboratory with a recent history of modified liver and metabolic tests, were evaluated in the outpatient from a clinical, biological and imaging parameters. Documentation and staging of NAFLD was done by laboratory evaluation of biomarkers (FibroMax) and imaging (ultrasound, FibroScan, computed tomography and MRI).

RESULTS: Out of 237 outpatients diagnosed with hepatic steatosis (K76.0), additional patients were evaluated, N = 133 - 56.11%, (70 male-52.63% and 63 female-47.36%) who presented positive history, clinical data and laboratory changes relevant to NAFLD. The diagnosis of NAFLD was established in 110 patients (82.70%) of whom male 52.72%. According to the staging values in the FibroMax/FibroScan assessment, 21 patients (19.09%) had mild steatosis S1, 28 patients (25.45%) moderate steatosis S2 and 48 patients (43.63%) advanced steatosis S3. In 13 patients NAFLD was determined by CT and MRI. De novo liver cirrhosis was established in 3 patients and one patient presented liver nodule on ultrasound, confirmed

on MRI as hepatocellular carcinoma. 81 patients (73.63%) associated one or more comorbidities such as hypertension 53 patients (65.43%), 39 patients (48.14%) type 2 diabetes and 48 patients (59.25%) obesity. The hepatocytolysis syndrome present in 57 patients (51.81%) and dysmetabolic syndrome in 69 patients (62.72%), was associated in 86.88% of cases with steatosis S2 and S3.

CONCLUSION: High prevalence of NAFLD, especially among patients who associate comorbidities, hepatocytolysis and dysmetabolic syndrome form predictive models for the outpatient assessment of patients with obesity, hypertension, diabetes.

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ETIOPATHOGENIC CORRELATIONS BETWEEN SPONTANEOUS BACTERIAL PERITONITIS AND HEPATORENAL SYNDROME - RETROSPECTIVE STUDY IN IGH CIRRHOTIC HOSPITALIZED PATIENTS ("ST. SPIRIDON" HOSPITAL, IAȘI) IN THE PANDEMIC YEAR 2021

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KEYWORDS: spontaneous bacterial peritonitis, liver cirrhosis, hepatorenal syndrome

INTRODUCTION: Spontaneous bacterial peritonitis (SBP) and hepatorenal syndrome (HRS) are severe complications of decompensated liver cirrhosis (LC). The occurrence of SBP in a cirrhotic patients favors the development of HRS and aggravates the prognosis of the disease.

MATERIAL AND METHOD: We performed a retrospective study in cirrhotic patients hospitalized in Institute of Gastroenterology and Hepatology between June 1st and December 31st , 2021. We investigated the number of cases with LC, the prevalence of SBP and HRS in these patients, the risk of HRS in patients with SBP, and mortality rate. We checked the diagnosis, the type of germs and the treatment regimens in SBP.

RESULTS: Out of a total of 524 cirrhotic patients hospitalized during this period, 64 had HRS (12.21%) and 82 patients had SBP (15.62%). Among patients with SBP, 34.52% developed HRS (29 patients). The mortality rate in patients with HRS was 45.31%, in those with SBP it was 31.7%, and in the group of patients with SBP + HRS - 82.7% (24 cases). 64 patients (78%) were diagnosed with SBP based on cellularity, while 18 cases (21.9%) also had bacteriological confirmation, most with Escherichia Coli (E. coli) - 10 cases (55.55%). Antibiotic treatment was performed in most cases with cephalosporins

- 40 patients (48.78%), followed by carbapenems - 14 patients (17.07%) and Vancomycin or Metronidazole in 12 cases (14.63%). Of the 11 patients in whom albumin was associated with antibiotic therapy, only 3 developed HRS (27.27%), while the HRS rate in patients with SBP treated with antibiotics alone was 36.61% (26 cases).

CONCLUSIONS: SBP is an important risk factor for HRS. SBP is mostly caused by E. Coli (55.55%), and cephalosporins represent the most frequent antibiotic treatment (48.78%). Combining albumin with antibiotic therapy in patients with cirrhosis and SBP decreases the risk of developing HRS. Patients with SBP and HRS have an increased mortality rate.

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EVALUATION OF LIVER FIBROSIS IN INDIVIDUALS WITH METABOLIC SYNDROME USING NON-INVASIVE BIOMARKERS

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KEYWORDS: metabolic syndrome, liver fibrosis, non-invasive biomarkers

INTRODUCTION: Individuals with metabolic syndrome (MS) are at high risk for developing non-alcoholic fatty liver disease and advanced liver fibrosis. Although, there are currently no recommendations for screening patients with MS. This study aimed to assess the diagnostic accuracy of non-invasive biomarkers in predicting advanced liver fibrosis (≥F3) in patients with MS using vibration-controlled transient elastography (VCTE) as a reference method.

MATERIALS AND METHODS: We prospectively enrolled patients with MS who have been evaluated using non-invasive biomarkers such as aspartate aminotransferase to platelet ratio index (APRI) score, fibrosis-4 (FIB-4) index, and NAFLD fibrosis score (NFS), in the Gastroenterology and Hepatology Institute Iasi, between December 2021 to April 2022. We calculated the area under the receiver operating curve (AUROC), specificity, sensitivity, negative predictive value (NPV), and positive predictive value (PPV) for each of these biomarkers in the detection of advanced liver fibrosis (≥F3) compared with liver stiffness measurements (LSM).

RESULTS: Among 87 patients enrolled with a mean body mass index of 26.71±4.42 kg/m2, 54 (62.1%) were females. According to LSM measurements, 22 (25.3%) individuals had at least advanced fibrosis (≥F3) using a cut-off ≥9.7 kPa. A significant

correlation was found between LSM measurements and FIB-4 index (r=0.384), NFS (r=0.397), and APRI score (r=0.451) (p <0.001). The FIB-4 index had the highest AUROC 0.82 with an NPV of 90.38% followed by an NFS score with an AUROC of 0.77 and an NPV of 87.84%. Albeit, all the biomarkers had relatively low specificity (<75%) and PPV (<70 %), the major finding of our analysis was that all these biomarkers had relatively high NPV (>85%) and accuracy (>83%) for predicting advanced liver fibrosis.

CONCLUSIONS: FIB-4 index and NFS score appear to be the most accurate biomarkers compared with VCTE for the exclusion of advanced fibrosis in MS patients. Therefore, increased values of NFS score and FIB-4 index may provide a call for action for further evaluation of liver disease in tertiary care centers.

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PREDICTIVE FACTORS OF TRANSARTERIAL CHEMOEMBOLIZATION REFRACTORINESS IN PATIENTS WITH HEPATOCELLULAR CARCINOMA

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KEYWORDS: Ultrasound, Inflammatory bowel diseases, wall stratification, Doppler signal.

BACKGROUND: Repeated transarterial chemoembolization (TACE) can lead to loss of its efficacy with tumor progression and also can be associated with a deteriorated liver function. The aim of the study is to identify factors associated with TACE refractoriness.

MATERIAL AND METHODS: A number of 169 patients with hepatocellular carcinoma (HCC) who underwent TACE as a first-line treatment between 2013 and 2018 were analyzed. TACE refractoriness was determined according to the Japan Society of Hepatology guidelines. Univariate and multivariate analyses were performed to investigate the association between clinical features, tumor markers and TACE refractoriness.

RESULTS: Median follow-up was 47.4 months (range 37-98 months). The mean patient age was 62.2±7.9 years. Eighty-

three patients had an alfa-fetoprotein (AFP) level > 20ng/mL. The median maximal diameter of the tumors was 3.5 cm. One hundred and ten patients (65.5%) were considered TACE refractory. The following independent features associated with TACE refractoriness were evaluated: maximum tumor size; tumor number; initial AFP value, initial prothrombin induced by vitamin K absence (PIVKA) value, AFP and PIVKA at one month after TACE. In the univariate analysis the presence of more than one nodule, an AFP greater than 20 ng/ml and PIVKA greater than 100 mAU/mL were associated with TACE refractoriness. In the multivariate analysis PIVKA greater than 100 mAU/mL and multinodular HCC were found to be predictive factors for TACE refractoriness, with a hazard ratio (HR) of 3.083 (p=0.003) and 1.520 (p=0.05), respectively.

CONCLUSION: In patients with HCC treated with TACE as an initial therapy, an elevated value of PIVKA greater than 100 mAU/mL and multinodular HCC were associated with TACE refractoriness.

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LIVER ELASTICITY IN HEALTHY INDIVIDUALS USING P-SWE AND 2DSWE IMPLEMENTED ON TWO NEW ULTRASOUND SYSTEMS USING TRANSIENT ELASTOGRAPHY AS THE REFERENCE METHOD

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KEYWORDS: Liver stiffness, 2DSWE, pSWE

AIMS: The aim of this study was to present the normal liver stiffness (LS) values obtained using 2 different ultrasound (US) machines (one high-end and one medium range) as well as 3 different probes.

METHOD: We evaluated LS using both point SWE (pSWE) and 2DSWE, integrated in 2 ultrasound machines: Siemens Sequoia, using the 5C1, DAX and 4V1 probes and Siemens Juniper using 5C1 probe. Patients without known liver pathology, aged 26 – 76 years were included. All patients underwent conventional ultrasound examination, and transient elastography (TE) measurements was performed as a reference method for fibrosis severity assessment. Patients with LS values higher than 7kPa were excluded (considered to have at least significant fibrosis).

RESULTS: Conventional US and TE were performed in 66

patients without known liver pathology. After applying the exclusion criteria, 50 patients remained: mean age – 50.88 years, mean BMI - 29.09 kg/m2. The mean LS value by pSWE using Siemens Juniper (5C1 probe) was 3.02 ± 0.84 kPa, significantly lower than TE 4.84 ± 1.08kPa (p<0.005). The mean value using pSWE Siemens Sequoia with the 5C1, DAX and 4V1 probes where 3.29 ± 0.74 kPa, 2.96 ± 0.6kPa and 3.09 ± 0.71 kPa, all significantly lower than TE (p<0.005). 2D SWE measurements were made using the Siemens Sequoia with the 5C1 probe and the DAX probe, with mean LS values of 2.66 ± 0.75 kPa and 2.8 ± 0.99 kPa, also significantly lower than TE. A comparison was made between all the probes both using 2DSWE and pSWE, no significant differences were found (p>0.05).

CONCLUSION: In healthy individuals, liver stiffness values by Siemens Juniper point SWE as well as by Siemens Sequoia using 2DSWE and point SWE where significantly lower as compared to TE. No significant differences were found when comparing point and 2DSWE measurements with the two systems among different probes.

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GENERAL SPECTRUM OF AUTOIMMUNE HEPATITIS, THE EXPERIENCE OF A TERTIARY REFERRAL CENTER

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INTRODUCTION: Autoimmune hepatitis (AIH) is a chronic inflammatory liver disease that occurs when there is a low immunity tolerance against hepatic self antigens. There are currently few reports about Romanian patients with autoimmune hepatitis.

MATERIAL AND METHODS: We conducted a retrospective study from August 2019 to March 2020, by analyzing the patient's database from the Department of Gastroenterology and Hepatology of Fundeni Clinical Institute. The patients were divided in two groups: AIH group and AIH with overlap syndrome group. The diagnosis was based on clinical, laboratory and histological abnormalities and was validated using the revised International AIH Group criteria.

RESULTS: Of the 65 patients included in study, 63 were diagnosed with type 1 AIH (96.92%), 55 were with AIH-only (84.6%) and 10 with AIH and overlap syndrome (15.4%). The AIH only group was composed of 48 women (87.3%); the median age was 50.26 years, the majority of them being sexagenarians. At the time of diagnostic, 12 patients had cirrhosis (21.8%).

Thirteen patients had also other autoimmune diseases: 4 with autoimmune thyroiditis (30.8%), 3 with celiac disease (23.1%), 6 with others (46.1%). In the group of patients with AIH and overlap syndrome, 6 patients were older than 60 years (60%), one patient had decompensated cirrhosis at the moment of diagnostic (10%) and 3 patients had other autoimmune diseases (30%), with lupus erythematosus being the most frequent pathology. The overall medium immunoglobulin G (IgG) value was 1785 mg/dl, in study population. In the group of AIH only the medium IgG was 1711 mg/dl, compared with 1860 mg/dl in patients with AIH and overlap syndrome.

CONCLUSION: The prevalence of cirrhosis at the time of diagnosis was greater in the AIH only group compared with the overlap group. Female patients present more often with decompensated cirrhosis at the time of diagnosis. The medium serum level of IgG is greater in patients with overlap syndrome. There is a need for larger multicentric studies for the evaluation of autoimmune hepatitis spectrum in different regions of the country.

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SCREENING FOR HEPATITIS B VIRUS IN HIGH-RISK CATEGORIES OF ROMANIAN POPULATION IN LIVERO2SUD PROJECT AND CHARACTERISTICS OF HBSAG POSITIVE PATIENTS

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BACKGROUND: The 2016 Polaris Observatory study reported a global HBV prevalence of 3.9% (292 million persons) based on a country- and region-level modelling study of 120 countries; the collaborators furthermore estimated that only 10% (29 million) of infected persons were diagnosed. Romania, with a reported prevalence rate of 4.4 for HBs antigen (Ag), based on the nationwide cross-sectional survey conducted during 2006-2008, represents a high figure within the European Union.

AIM: To screen socio-economic vulnerable population in order to provide high-quality medical services for the prevention, diagnosis, and referral to treatment for HBsAg positive subjects, as well as to refresh the HBV prevalence in this high-risk population. The screening project will be conducted till November 2023 in 12 out of the 41 counties of Romania, covering the Southern part of the country.

METHODS: Subjects from vulnerable categories as defined for the study purpose signed the informed consent and were consequently enrolled. Screening providers are family physicians (FPs) affiliated with the project who perform HBsAg rapid diagnosis tests in their office. Linkage-to-care and therapy will be further provided for all HBV-positive subjects. The project started on 28th of July 2021 (World Hepatitis Day) in the first 4 out of the 12 counties.

RESULTS: Between 28th of July and 28th of May 2022, 69,131 subjects have been screened. The overall prevalence of HBsAg was 1.44%, with a higher prevalence among urban population and males. Patients with the highest risk of being HBV chronically infected are patients aged between 30 and 39 years, Roma ethnicity, unemployed, divorced and showing low education level. The mean liver stiffness value was 5.95±3.90 kPa, with 3.38% of them having liver cirrhosis; mean HBV DNA value was 629414.18 ±579393.9 UI/mL. 66.2% of HBV positive patients do not need antiviral therapy. Among HBsAg positive patients, 1.97% had HDV coinfection. 14.29% of patients with positive HDV Ab had liver cirrhosis and the mean HDV RNA viral load was 877009.7 ± 265299.2 UI/mL; only 2 patients had undetectable HDV RNA.

CONCLUSIONS: The study demonstrated that the prevalence and profile (younger, urban residence) of HBV infection dramatically changed as compared to previous data. Majority of the HBsAg positive patients have chronic HBV infection but without fibrosis and no need for antiviral therapy. The understanding of the true burden of viral hepatitis in vulnerable Romanian population is necessary to develop targeted prevention and screening strategies aiming at achieving the 2030 WHO objectives of viral hepatitis elimination.

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ALCOHOL-RELATED CIRRHOSIS, RISK FACTOR FOR THE ADVANCED STAGE AT DIAGNOSIS OF HEPATOCELLULAR CARCINOMA

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KEYWORDS: liver cirrhosis, hepatocellular carcinoma, diagnosis, Barcelona Clinic Liver Cancer classification

INTRODUCTION: Hepatocellular carcinoma (HCC) is one of the most serious long-term complications of liver cirrhosis (LC). Its prognosis depends on the stage at the time of diagnosis. It occurs mainly on cirrhotic liver, with identified etiological factors. The aim of the study is to assess the stage at which HCC is diagnosed and whether it is influenced by the etiology of cirrhosis.

MATERIAL AND METHOD: We retrospectively studied the patients diagnosed with HCC in a tertiary reference center, during a pandemic year (March 1, 2020 - February 28, 2021). We demographically characterized the patients, recorded the etiology of cirrhosis, and identified the stage at the time of diagnosis, according to the Barcelona Clinic Liver Cancer (BCLC) classification.

RESULTS: 76 patients with HCC were analyzed. 29 patients (38%) had alcohol-related LC, while 47 patients (62%) had viral etiology (20 HCV, 15 HBV, 4 HBV + VDH, 2 HBV + HCV). According to the BCLC classification, 5 patients (6.6%) were diagnosed in the early stage (A), 3 (4%) in the intermediate stage (B), 14 (18.4%) in the advanced stage (C), and 54 (71%) in the terminal stage (D). No cases were detected in a very early stage. The analysis of the frequency of the terminal stage according to the etiology of LC showed a predominance of stage D at diagnosis significantly higher in patients with alcohol-related LC (25 patients, 86%), compared to patients with viral LC (29 patients, 62%), p = 0.02.

CONCLUSIONS: Most cases of HCC have a predominantly viral etiology, mainly HCV. Only a minority of newly diagnosed cases (10.5%) belonged to the stages with potentially curative treatment. Most HCCs are diagnosed in the advanced and terminal stages, with a higher frequency of the terminal stage at diagnosis in alcoholic cirrhotics. Low follow-up compliance and more severe deterioration of liver function are possible explanations for the diagnosis of HCC most commonly in stage D in alcohol-related LC.

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SCREENING FOR HEPATITIS C VIRUS IN HIGH RISK CATEGORIES OF ROMANIAN POPULATION IN LIVERO2SUD PROJECT AND CHARACTERISTICS OF HCV AB POSITIVE PATIENTS

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BACKGROUND: Romania was considered over the last 15 years, the European country with the highest prevalence rate of HCV infection based on our previous reported HCV

prevalence from the single nationwide cross-sectional study. The POLARIS group used these data to create a model about the changing prevalence of HCV due to ageing, treatment and cure and mortality.

AIM: To screen socio-economic vulnerable population in order to provide high-quality medical services for the prevention, diagnosis, and referral to treatment for HCV-Ab positive subjects, as well as to refresh the HCV prevalence in this high-risk population. The screening project will be conducted till November 2023 in 12 out of the 41 counties of Romania, covering the Southern part of the country.

METHODS: Subjects from vulnerable categories as defined for the study purpose signed the informed consent and were consequently enrolled. Screening providers are family physicians (FPs) affiliated with the project who perform HCV-Ab rapid diagnosis tests in their office. Linkage-to-care and therapy will be further provided for all HCV-positive subjects. The project started on 28th of July 2021 (World Hepatitis Day) in the first 4 out of the 12 counties and engaged 321 FPs.

RESULTS: Between 28th of July and 28th of May 2022, 69,131 subjects have been screened. The overall prevalence of anti-HCV antibodies was 0.93%. The HCV prevalence was higher among female patients (p=0.0001) and increased with age (p=0.01). According to our results, a higher risk of being anti-HCV positive is associated with age >60 years, female gender, Roma ethnicity, inactive/retired, without or with low education level. Among patients that were detected HCV Ab positive, 13.43% had liver cirrhosis; the mean liver stiffness obtained at Fibroscan® was 8.84±6.61 kPa and mean CAP value was 250.21±64.11dB/m. HCV RNA was positive in 96.8% of patients and the mean viral load is 174615.8 ± 370271.7 UI/mL.

CONCLUSIONS: The burden of HCV infections is significantly lower than previous estimates even in this vulnerable high risk category of screened persons, with moderate to advanced liver fibrosis probably due to ageing population with increased mortality due to both liver and non-liver related causes. Our results contribute to more objective data compared to modelling forecasting, as well as to development of national strategies to achieve the WHO elimination targets for 2030.

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HOST AND IMMUNOSUPPRESSION-RELATED FACTORS INFLUENCING FIBROSIS OCCURRENCE POST LIVER TRANSPLANTATION

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BACKGROUND: Post liver transplantation fibrosis has a negative impact on graft function. Cytokine production in the host immune response after transplantation may contribute to the variable CYP3A-dependent immunosuppressive drug disposition, with subsequent impact on liver fibrogenesis, together with host-related factors.

AIM: To investigate whether the cytochrome P450 3A5*3 (CYP3A5*3) or TBX21 genotypes affect tacrolimus pharmacokinetics and to evaluate their potential impact on liver fibrogenesis post liver transplantation, after controlling for the host-related factors. Furthermore, the impact of immunosuppressants on cellular apoptosis has been evaluated using human hepatocytes harvested from cirrhotic explanted livers.

METHODS: Between October 2018 and March 2020, we have enrolled 98 liver transplant recipients that were followed for occurrence of liver fibrosis for at least 12 months after liver transplantation. Non-invasive evaluation of the liver was performed (Fibroscan with CAP and FIB4) for monitoring of fibrosis stage ≥2 and/or steatosis grade 3 occurrence. Buffy coat from patients were obtained for genotyping of CYP3A5*3 (rs776746) and TBX21 polymorphisms by Taqman SNP Genotyping Assays (Thermo Scientific). Cox regression analysis was performed to identify predictors of the outcome. Cirrhotic hepatocytes have been cultured in low glucose DMEM culture medium and have been treated for 24 hours with 1 µM tacrolimus (TAC), sirolimus (SIR), mycophenolate mofetil (MMF), or combinations (TAC+SIR, MMF+TAC). At 24 hours apoptosis and necrosis was assessed using Tali™ Apoptosis Kit - Annexin V Alexa Fluor™ 488 & Propidium Iodide (Thermo Scintific). Gene expression has been assessed by qRTPCR using a microarray of 19 genes significant for apoptosis.

RESULTS: 73.5% of patients in our study group have received a tacrolimus-based immunosuppressive regimen. There was a statistically significant higher trough level of tacrolimus in patients with homozygous CC TBX21 genotype (7.83±2.84 ng/mL) vs 5.66±2.16 ng/mL in patients without this genotype (p=0.009). No difference was registered for tacrolimus levels according to CYP3A5 genotypes. The following variables were identified by univariate Cox regression analysis as risk factors for fibrosis ≥2: donor age (p=0.02), neutrophil to lymphocyte ratio (p=0.04) and TBX21 genotype CC (p=0.009). In the cell culture model cytometry analysis has indicated the lowest apoptotic cells percentage in human cirrhotic hepatocytes cultures treated with MMF (5%) and TAC+MMF (2%) whereas the highest apoptosis percentage was registered for the TAC alone (11%). The highest toxicity indicated by apoptosis and necrosis was registered for the association of TAC+SIR (17%). The gene expression results are concordant to cytometry study results, indicating the lowest apoptotic effect for MMF and MMF+TAC immunosuppressive regimens.

CONCLUSIONS: The allele 1993C of the SNP rs4794067, but not CYP3A5*3 genotype may predispose to the development of late significant fibrosis of the liver graft. MMF based immunosuppressive regimens have a favourable anti-apoptotic profile in vitro, in human cirrhotic hepatocytes cultures, as suggested by cytometry and gene expression studies, supporting its use in case of liver transplants recipients at high risk for liver graft fibrosis.

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THE FREQUENCY AND IMPACT OF INFECTIONS IN PATIENTS WITH ALCOHOLIC HEPATITIS

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BACKGROUND: Alcoholic hepatitis (AH) is one of the most severe forms of alcohol induced liver disease, especially severe alcoholic hepatitis (sAH), defined by a modified discriminant function (MDF) >32, being associated with 1 month mortality of 30%. Infections complicates AH and is the main cause of death in these group of patients, even in those who benefit from corticotherapy. Aim: to evaluate the frequency of infections in patients with AH and the outcome of this patients.

MATERIAL AND METHODS: a retrospective study was performed including 150 patients with AH over a period of 6 years in a tertiary Department of Gastroenterology and Hepatology. Systematic screening of infections was performed at admission, including chest x-ray, blood, urinary and ascites cultures. Severe AH was defined by a MDF score >32, response to corticotherapy was evaluated by Lille score at 7 days. Univariate regression was use to determine independent factors related to mortality.

RESULTS: One hundred and fifty subjects were included in the final analysis, 84% male, mean age 55.5 ±9.42. All patients were previously diagnosed with liver cirrhosis. 39.3% (59/150) presented infections at admission and 37.3% of the subjects with infections (22/59) died during admission, while only 19.7% (18/91) of those without infections, died (p=0.0283). 72.7% (109/150) of the included subjects had MDF>32 and received corticosteroid therapy and 42.2% of these (46/109) had an associated infection. In the group of those who received corticosteroid therapy, 35/109 (32.1%) deaths were recorded, 18/35 of them in patients with an associated infection (51.4%).

Lille-7 was calculated in 90/109 subjects. 75.2% (82/109) of the subjects who received corticosteroid therapy were not responsive at 7 days and 31.7% of them (26/82) died, while 25% (2/8) of the responders died (p=0.9926).

In univariate regression analysis the presence of infections at admission was found to be an independent predictor for mortality (p=0.027).

CONCLUSION: AH is associated with a high risk of infection and infection screening is mandatory in these patients. The presence of infections at admission was found to be an independent predictor for mortality.

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INFLAMMATORY BOWEL DISEASE PHENOTYPE IS NOT ASSOCIATED WITH COURSE OF PRIMARY SCLEROSING CHOLANGITIS

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KEYWORDS: primary sclerosing cholangitis, inflammatory bowel disease, liver transplant, hepatobiliary complications

INTRODUCTION: Primary sclerosing cholangitis (PSC) and Inflammatory bowel diseases (IBD) can arise simulatenously in patients thus describing a unique disease phenotype, but are often associated thus increasing the risk of developing colorectal and hepatobiliary malignancy.

METHODS AND AIM: We performed a retrospective study including 92 patients from Fundeni Clinical Institute evaluated in our clinic between 2011 and 2022. 21.7% of patients had PSC and associated IBD, half of them with Crohn's disease (CD).

RESULTS: The median age at PSC diagnosis was 37.8 years, lower than in the rest of the cohort, 41,6 years. 12 of the patients had the PSC following IBD diagnosis. 14 patients

had pancolonic involvement of the colon. 8 patients (40%) required biological treatment for IBD. 3 patients developed cholangiocarcinoma during follow-up. 6 of the patients received orthotopic liver transplant (OLT).

Age at diagnosis of IBD was significantly lower in patients with CD compared to those with Ulcerative Colitis (UC) (30.7±10.2 vs 41.1±12.7 years, p=0.05). CD was encountered in a significantly higher proportion in patients with small bile duct PSC (66.6% vs 41.1%, p=0.02). CD vs UC had no influence with respect to transplant free survival

In the univariate Cox regression analysis were identified the following predictive factors for liver transplantation during follow-up of PSC and IBD patients: higher Mayo risk score at diagnosis (p=0.04), higher Amsterdam - Oxford Model (AOM) (p=0.03), higher FIB-4 score (p=0.02) and higher PREsTo score (p=0.02). No IBD related factor was statistically significant in the survival analysis.

CONCLUSIONS: The most common sequence of disease is PSC diagnosis following IBD diagnosis, with no influence with regard to CD vs UC on transplant free survival. All analysed prognostic tools for PSC predicted need for LT during the follow up of patients with PSC and IBD.

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INTERFERON-FREE THERAPY IN CHRONIC HEPATITIS C VIRUS AND LIPID METABOLISM IMPACT

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KEYWORDS: hepatitis C virus, interferon-free, cholesterol

INTRODUCTION: Hepatitis C virus (HCV) infection is accompanied by multiple metabolic alterations including insulin resistance, reversible hypocolesterolemia, hyperuricemia. HCV infection increases fatty acid synthase levels that leads to accumulation in hepaticytes.

MATERIALS AND METHOD: For this study we chose 2 lots of 40 patients with HCV infection with Diabetes melitus type 2 (T2DM) respectively without T2DM and evaluated before and 3 years after DAA treatment by means of testing cholesterol and triglycerides levels.

RESULTS: With the help of blood test we compared total cholesterol and triglycerides levels results before and after DAA treatment. Our tests have shown that after treatment Cholesterol levels have increased in 42% of nonT2DM patients bringing them back into normal levels, 10% of cases had

values exceeding 200mg/dl. In regards to T2DM patients 58% of patients had higher post DAA levels and 32% of them had exceeded 200mg/dl. Based on Triglycerides 38% of nonT2DM patients had higher results post treatment compared to 44% in the case of T2DM patiens.

CONCLUSIONS: HCV infection is accompanied by multiple metabolic alterations such as insulin resistance, arterila hypertension, hypocholesterolemia and visceral adipose tissue expansion. Eradication of HCV by means of interferon-free regimens increases total cholesterol levels because sustained virusologic respons (SVR) improves liver function, decreases fibrosis severity and because the regimens have no influence on the nutritional status of the host. Although high SVR rates are achieved it is important to further investigate the metabolic changes in time.

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MICRO-ARNS IN FATTY LIVER DISEASE: CLINICAL SIGNIFICANCE AND THERAPEUTIC PERSPECTIVE

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INTRODUCTION: Non-alcoholic fatty liver disease (NAFLD) is a major public health problem, with an estimated prevalence in Europe of 23.7%. An unhealthy lifestyle, high-calorie diet, and sedentary lifestyle, combined with environmental factors have made NAFLD one of the major causes of liver failure.

PATIENTS AND METHODS: We have included 56 overweight and obese patients with ultrasound-demonstrated liver steatosis. The biological evaluation was extensive, including, in addition to blood glucose, total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides, and glycated hemoglobin and C-reactive protein, respectively.

Samples for the study of microRNA expression were collected on EDTA, the working method being real-time PCR. The sequence of work was the reverse transcription of total RNA to obtain complementary DNA, followed by qRT-PCR amplification to detect the expression level of miR-122 and miR-192 micro-RNAs. Quantification of gene expression was estimated by the difference between $\Delta CtNAFLD$ and $\Delta Ctcontrol$ and the fold change was calculated as $2-\Delta\Delta Ct$.

RESULTS: Significant correlations were found between ultrasound severity of hepatic steatosis, dyslipidemia, pro-inflammatory status, and altered expression of miR-122 and

miR-192. The results are of significant clinical significance as miR-122 is an important regulator of lipid metabolism with increased expression in atherosclerosis, type 2 diabetes, and obesity, and miR-192 correlates with fibrosis and NAFLD.

CONCLUSIONS: The investigated micro-RNAs would be useful to introduce in the biological evaluation algorithm together with the other markers in the investigation of overweight and obese patients in order to personalized quantification of dyslipidemia, fibrosis, and fatty tissue of the liver tissue.

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IMPACT OF NON-ADHERENCE TO TREATMENT AS A PRECIPITATING FACTOR OF HEPATIC ENCEFALOPATHY

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KEYWORDS: hepatic encephalopathy, cirrhosis, non-adherence

INTRODUCTION: Hepatic encephalopathy (HE) is a common complication of liver cirrhosis (LC). Identifying and correcting precipitating factors are essential for the prognosis. The aim of the study is to evaluate the role of non-adherence to treatment on the occurrence of HE, according to the main etiological groups of LC.

MATERIAL AND METHOD: We retrospectively studied patients with LC and HE hospitalized in a tertiary reference center, during a pandemic year (April 1, 2020 - March 31, 2021). We analyzed the patients having as single precipitating factor the non-adherence to the therapeutic recommendations, and we analyzed comparatively their proportion according to the LC etiology - alcoholic and viral, respectively.

RESULTS: Of the 526 patients with CH and EH analyzed, 258 (49%) had a single precipitating factor, 207 (39%) 2 or more, and 61 (12%) were not identified. The most common precipitating factors were infections (43%), gastrointestinal bleeding (32%), renal dysfunction and dyselectrolyemia, independently or in combination. As single precipitating factor, non-compliance was more significantly more frequent in alcohol-related LC (90 cases, 23%, represented by 52 cases of alcohol consumption -13%, and 38 cases of non-compliance to drug treatment - 10%), compared to patients with viral LC (7 cases, 5.2%, p <0.05).

CONCLUSIONS: Non-adherence is one of the precipitating factors of EH, with a significantly higher frequency in patients with alcohol-related cirrhosis compared to patients with viral cirrhosis. As it is a modifiable factor, integrated efforts to educate and maintain adherence will be able to prevent some of the complications of CH.

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NOVEL SERUM BIOMARKERS FOR DETECTING INFECTIONS IN PATIENTS WITH LIVER CIRHOSSIS

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KEYWORDS: infections, presepsin, CPS-1

INTRODUCTION: Sepsis is a common cause of decompensation in cirrhotic patients, leading to multiple organ dysfunction syndrome and death. Patients with acute-on-chronic liver failure (ACLF) can develop bacterial infections once addmited in a hospital, the most frequent sites being ascites, lungs, urinary tract and bloodstream infections. Rapid diagnosis and treatment are required in order to improve the prognosis of cirrhotic patients.

MATERIALS AND METHODS: This is a prospective cohort study that included 50 patients diagnosed with liver cirrhosis, with ACLF grades 1 and 2, addmited in Fundeni Clinical Institute since 15January 2020 and is still ongoing. Data collected included demographic, biochemical, bacterial cultures and 3 serum biomarkers, human presepsin (sCD14-ST), human carbamoyl-phosphate synthase 1 mitochondrial (CPS-1) and interleukin 6 (IL-6). Data were analyzed using 2 sample t-test.

RESULTS: For the 50 patients with liver cirrhosis, the median age was 51±13.63 years, with 32(64%) males and 18 (36%) females. The most frequent etiology of liver disease was alcoholic, in 42% of cases, with hepatocarcinoma in 20% of cases. 17 patients had grade 1 ACLF (34%) and 16 (32%) grade 2 ACLF. There was a significant association between human presepsin and procalcitonin levels (161.98 pg/ml vs 2.06 ng/ml, p<0.001), and also with C reactive protein (CRP) levels (161.98 pg/ml vs. 39.29 mg/L, p<0.001). CPS-1 mean levels also correlate with procalcitonin and CRP levels (0.175 ng/ml vs 2.06 ng/ml, p=0.022, respective 0.175 ng/ml vs 39.29 mg/L, p<0.0001). IL-6 levels in acute decompensation did not correlate with procalcitonin and CRP levels (p=0.34 and p=0.37). High death rates were recorded, in 42% of cases and for 9 patients (18%) liver transplantation was possible.

CONCLUSIONS: Human presepsin and CPS-1 can be useful for early diagnosis of infections in cirrhotic patients, in order

to institute antibiotic therapy, even prior to bacterial cultures results, thus reducing the mobidity and mortality.

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OSTEOPOROSIS IN CIRRHOTIC PATIENTS BEFORE AND AFTER LIVER TRANSPLANTATION: THE RELATIONSHIP BETWEEN MALNUTRITION AND INFLAMMATORY SYNDROME

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KEYWORDS: liver cirrhosis, bone mineral density, osteoporosis

INTRODUCTION: Liver cirrhosis is associated with osteoporosis and liver transplant (LT) with increased bone demineralization. This study aimed to investigate the relationship between bone mineral density (BMD) and bone matrix demineralization in transplant candidates with malnutrition, inflammatory syndrome and altered levels of stress hormones.

MATERIALS AND METHODS: We included 99 patients diagnosed with cirrhosis and included for LT between May 2016 and April 2021 in CHU Saint Eloi, Montpellier, France. BMD was assessed by osteodensitometry (DXA). Malnutrition has been defined through anthropometry and the assessment of recent weight loss. The hormone TSH, free triiodothyronine (T3), free thyroxine (T4) and growth hormone (GH), cortisol, free testosterone, estradiol, interleukin-6 and tumor necrosis factor were evaluated in 74/99 patients. Overall, 57/99 patients received LT and 47/99 were followed-up for one year after transplantation. At follow-up, nutritional status and BMD were assessed in all the patients (n = 47), while 34/47 had blood samples available for analysis.

RESULTS: From all transplant candidates, 41% had osteopenia or osteoporosis. Malnutrition was associated with osteopenia/ osteoporosis (probability: 3.5, 95% CI 1.4, 9.9). The hip Z score decreased by -0.25 (95% CI -0.41, -0.09) from the initial assessment to one year after transplantation. Initially high TNF-α values correlated with a more pronounced decrease in BMD (partial correlation (r) = -0.47, p <0.05) as well as high levels of initial cortisol (r = -0, 49, p <0.05).

CONCLUSION: Malnutrition in liver cirrhosis appears to be associated with osteopenia/osteoporosis, systemic inflammation (elevated TNF-α) and systemic stress (elevated plasma cortisol levels).
Liver transplantation improves the quality of life of these patients but can increase the bone demineralization process in the medium term by increasing the release of stress hormones.

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SUBTYPES OF METABOLIC ASSOCIATED FATTY LIVER DISEASE IN DEPENDENCE OF METABOLIC CONDITIONS AND ASSOCIATED FACTORS

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INTRODUCTION: Metabolic-associated fatty liver disease (MAFLD) is one of the most important causes of hepatic disorders. Noninvasive test for steatosis like fatty liver index (FLI) is widely used tools for screening. The influence of different metabolic condition under effectiveness of FLI is important to study.

MATERIAL AND METHODS: Six hundreds eighty participants with fatty liver diagnosed by abdominal sonography were included in this study. Subtypes of MAFLD with obesity, diabetes mellites type 2 (DMT2) and metabolic disturbance was included 486 (71.5%), 152 (22.4%) and 42(6.2%) patients respective. Subgroups with one, two and three metabolic abnormalities was contained 363 (53.4%), 287 (42.2%) and 30 (4.4%) patients corresponding. Sublots of patients who present associated factors were distributed as nonalcoholic fatty liver disease (NAFLD) – 408 (60.0%), moderate alcohol consumption – 159 (23.4%) and viral hepatitis type B 39 (5.7%) and type C 74 (10.9%). We use FLI to calculate steatosis existence. The steatosis severity defined by FLI was categorized into two groups: no steatosis (FLI<60) and steatosis (FLI≥60).

RESULTS: Multivariant analysis of logistic regression find, that presence of DMT2 as a subtype of MAFLD, after adjustment by age and sex, was an independent predictor for hepatic steatosis calculated by FLI, with OR=22.856, (CI95% 9.098-57.417, p<0.001, accuracy 86.2%). Number of metabolic abnormalities more than two was another independent predictive factor for hepatic steatosis analyzed with FLI (OR=3.801, IC95% 2.269-6.367, p<0.001, accuracy 83.5%). Presence of minimal consumption of alcohol was the next independent predictor of hepatic steatosis evaluated with FLI (OR=4.052, CI95% 2.276-7.212, p<0.001, accuracy 83.7%).

CONCLUSION: Fatty liver index with good accuracy may stratify patient with hepatic steatosis in case of DMT2, two or more metabolic abnormalities and present of minimal consumption of alcohol.

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PREVALENCE, MANAGEMENT AND PROGNOSIS OF HEPATORENAL SYNDROME IN CIRRHOTIC PATIENTS HOSPITALIZED IN INSTITUTE OF GASTROENTEROLOGY AND HEPATOLOGY ("SF. SPIRIDON" HOSPITAL) IASI IN THE PANDEMIC YEAR 2021

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KEYWORDS: hepatorenal syndrome, decompensated liver cirrhosis

INTRODUCTION: Hepatorenal syndrome (HRS) is a severe complication of cirrhotic decompensated patients, with a prevalence in studies of 15%. The association of albumine and vasoconstrictors represents first line of treatment, with a median response rate of 50%. However, the prognosis remains reserved, and mortality is high.

MATERIAL AND METHOD: This is a retrospective study made on cirrhotic patients hospitalized in IGH between 01.06. and 31.12.2021. We followed the number of patients with liver cirrhosis, the prevalence of HRS among these patients, the treatment and the rate of response, the rate of Covid 19 infection among these patients, and the mortality rate. Also, we verified the number of HRS patients with liver transplant or on the waiting list for liver transplant.

RESULTS: From 524 cirrhotic patients hospitalized in IGH in this interval, 12,21% had HRS (64 patients), with a sex ratio men/women of 1,67:1 and median age of 55 ± 2 years. 63 patients received albumine with terlipressine for five days (98,43% of HRS patients). From the treated patients, 20 presented full response to treatment (31,25%), 12 patients (18,75%) – partial response and 32 (50%) – no response. 30 patients with HRS had also spontaneous bacterial peritonitis (46,87%), and 6 patients (9,37%) had also Covid 19 infection. Death rate was 45,31%. 2 patients with HRS received liver transplant (3,12%), one patient being on the waiting list for transplant.

CONCLUSIONS: From the cirrhotic patients with HRS hospitalized in IGH, the vast majority (98,43%) received medical treatment with albumine and terlipressine. Despite the response to treatment in 50% of cases, the mortality rate remains high (45,31%). The rate of liver transplant amongst cirrhotic patients with HRS is low, for now (3,12%).

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PROFILE OF ALCOHOL-INDUCED LIVER DISEASES IN THE GASTROENTEROLOGY OUTPATIENT

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KEYWORDS: alcoholic steatosis, alcoholic hepatitis, alcoholic cirrhosis

INTRODUCTION: Alcoholic liver disease is a common and a major cause of morbidity and mortality.

MATERIAL AND METHOD: We retrospectively analyzed a number of 220 patients with (declared) harmful alcohol consumption and liver disease: steatosis, hepatitis and alcoholic cirrhosis, after excluding other possible causes of liver damage, addressed to a gastroenterology outpatient service in 2021.

RESULTS AND DISCUSSIONS: The gender distribution was: 126 men and 94 women with an average age of 45.6 years. The average weekly alcohol consumption reported was 29 units for women and 38 units for men. The number of patients with diseases was: steatosis 24, hepatitis 165 and cirrhosis 31. New cases were 39 (9 steatosis, 26 hepatitis and 4 cirrhosis), the rest being patients already in medical records. The mean level of transaminases was: TGP 186 IU/ml, TGO 228 IU/ml, GGT 322 IU/ml, albuminemia was pathological in only 29 patients - all cirrhotic patients, bilirubin 2.25 mg/dl. In case of cirrhosis, 26 patients had decompensated disease and 17 had complications: 2 spontaneous bacterial peritonitis, 7 hepatic encephalopathy, 2 recent digestive bleeding, 2 new cases with hepatocellular carcinoma. Only 5 cirrhotic patients were already on the liver transplant list. The small number of hepatic steatosis can be explained by their a/oligo-symptomatic nature which delays the presentation to the doctor. Of the 220 patients, 187 had a long-term use of drugs, some with potential for liver damage (but difficult to demonstrate correlation). Among the most common co-morbidities were: diabetes, dyslipidemia, hyperuricemia, hypertension, ischemic heart disease, osteoarthrosis.

CONCLUSIONS: Chronic excessive alcohol consumption is the cause of broad-spectrum liver disease from simple steatosis to alcoholic cirrhosis with all its complications, the therapeutic intervention being of maximum use in the stages without advanced fibrosis.

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PROGNOSTIC MODELS IN PATIENTS WITH PRIMARY SCLEROSING CHOLANGITIS - THE EXPERIENCE OF A TERTIARY GASTROENTEROLOGY CENTER

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KEYWORDS: primary sclerosing cholangitis, risk scores, advanced liver disease

INTRODUCTION: Primary sclerosing cholangitis (PSC) is a chronic progressive cholestatic disease with poor prognosis, high likelihood of dying without liver transplantation (LT) and high risk of developing cholangiocarcinoma.

AIM: To evaluate the risk prediction models: Revised Mayo Risk Score (rMRS), Amsterdam - Oxford Model (AOM), Model for End-stage Liver Disease (MELD/MELD-Na) and Primary Sclerosing Cholangitis Risk Estimate Tool (PREsTo) in this retrospective study that included 92 patients with PSC evaluated in our hepatology clinic between 2011 and 2022.

RESULTS: There were 46% male patients and 54% female. The average age at diagnosis was 41.54 years (16-78 years). 20/92 (21.7%) of patients had an Inflammatory bowel disease (IBD) associated; 81/92 (87%) patients had large bile ducts PSC and 12/92 (13%) had a small-duct PSC.
36.5% of the patients had high rMRS, and 41.9% high AOM score. The average PREsTo was 6.4% at 1 year and 24.5% at 5 years. There was a significantly higher PREsTo score calculated at 1 year in patients that underwent LT compared to those that did not (9.8±2.7 vs 6.3±1.6, p=0.01), higher MELD score (p=0.001) and higher MELD-Na score (p=0.02). Higher AOM (p=0.06) and rMRS (p=0.07) reached only marginal significance. Patients with PSC that underwent LT had significant more episodes of recurrent cholangitis (p=0.04) as well as antecedents of variceal hemmorhage (p=0.02).

CONCLUSIONS: In Romanian patients with PSC that underwent LT the following scores can be accurately used in order to evaluate prognosis: PREsTo score in addition to MELD/MELD-Na as well as complications like recurrent cholangitis or upper digestive hemmorrhage.

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ANTIFIBROTIC EFFECT OF PENTOXIFYLLINE TREATMENT IN NON-ALCOHOLIC LIVER DISEASE ASSOCIATED WITH INCREASED INSULIN RESISTANCE IN COMPARISON WITH METFORMIN

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KEYWORDS: liver fibrosis, Pentoxifilna, Metformin

INTRODUCTION: The prevalence of non-alcoholic fatty liver disease (NAFLD) has increased significantly in recent decades. Non-alcoholic fatty liver disease includes non-alcoholic fatty liver (NAFL), nonalcoholic steatohepatitis (NASH) and cirrhosis NASH.

METHODS: A prospective study comparing the anti-inflammatory efficacy of pentoxifylline with hepatocyte compared with Metformin. The study included 14 patients. Group 1 includes 7 patients with grade 2 liver fibrosis associated with abdominal obesity. In patients in Group 1, treatment with Pentoxifylline 400 mg, 3x1 tb/day was initiated for 7 months, with histological follow-up of liver fibrosis and hepatocyte inflammation by biochemical tests and demonstration of insulin resistance by calculating the HOMA index. Group 2, includes 7 patients out of 14, with the same parameters as those in Lot 1, Metformin 500 mg, 2x1 tb/day, was started for 7 months.

RESULTS: The results include histological results of the liver. From group 1, at 5 patients, the improvement of liver fibrosis from F2 to F1 was observed after 7 months of treatment with Pentoxifylline. From group 2, at 2 patients out of 7, the improvement of fibrosis from F2 to F1 was observed. The reduction in hepatocyte inflammation treated with Pentoxifylline, which is superior to Metformin, demonstrated by a decrease in transaminases by more than 50% in group 1 compared to patients included in group 2 with Metformin, where this decrease in transaminases was 15%. The association of insulin resistance, demonstrated by the calculation of the HOMA index in patients with abdominal obesity and NASH, was observed to be over 2.5 in each group.

CONCLUSIONS: Our study suggests the potential efficacy of antifibrotic pentoxifylline treatment with anti TNF alpha effect in patients with varying degrees of hepatic fibrosis, associated with abdominal obesity and hepatocyte insulin resistance, calculated by the HOMA index.

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CONVERSION TREATMENT IN METASTATIC COLORECTAL CANCER WITH UNRESECTABLE OR BORDERLINE SYNCHRONOUS HEPATIC METASTASES

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KEYWORDS: mCRC, neoadjuvant, resection

INTRODUCTION: Metastatic disease is the main cause of death in patients with CRC. Approximately 20% of patients with CRC are diagnosed with synchronous hepatic metastases and over 50% of patients with CRC develop metastases during the course of their disease. Over the last decade, the treatment of metastatic colorectal cancer (mCRC) has undergone major advances with significant improvement in the chemotherapy protocols alone and in combination with targeted biological agents. Surgical resection of R0-resectable colorectal liver metastases is a potentially curative treatment, with reported 5-year survival rates of 20%–45%.

METHODS: In the Oncology Department of Fundeni Clinical Institute, a retrospective study was conducted between 2013-2022 on 570 patients with stage IV CRC and we selected 32 patients with unresectable or borderline synchrounous hepatic metastases. All patients received neoadjuvant chemotherapy and underwent hepatic surgery. All patients were tested for RAS mutations. The aim of the study: overall survival (OS) rate and pregression free survival (PFS) rate which were used to evaluate the outcome of the treatment regimen. Overall survival and progression free survival were estimated using the Kaplan-Meier method and log-rank tests to compare survival distribution.

RESULTS: 14 patients out of 32 had wild-type RAS status and 18 had mutant RAS status. OS and PFS for all patients were 38,6 months and 13,1 months respectively. The longest OS as well as PFS were for the FOLFIRI/CAPIRI+Bevacizumab regimen and the shortest were for FOLFOX/CAPOX+Panitumumab regimen. Furthermore, patients who recieved only chemotherapy had the longest OS.

CONCLUSION: Our findings demonstrate that conversion therapy followed by surgical resection improve OS and PFS in those patients with mCRC and unresectable or borderline synchronous hepatic metastases.

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ROLE OF CONTRAST-ENHANCED ULTRASONOGRAPHY IN THE ASSESSMENT OF FOCAL LIVER LESIONS

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KEYWORDS: CEUS, liver lesions, HCC

INTRODUCTION: The use of Contrast-Enhanced Ultrasonography(CEUS) is suggested as a second diagnostic step after ultrasound detection of indeterminate focal liver lesions to establish the diagnosis. CEUS permits real-time visualization of contrast-enhancement patterns during all vascular phases(arterial, portal-venous, and late). The dynamic analysis of the image in relation with these phases allows the detection and characterization of tumors with similar accuracy to that of CT and MRI without the risks of potential nephrotoxicity or ionizing radiation.

METHODS: We conducted a retrospective study over a period of 2 years(May 2020-April 2022) at IGH Iasi; we included the patients underwent CEUS and classified liver lesions(benign versus malignant) using CEUS imaging according to standard diagnostic criteria.

RESULTS: The study involved 51 patients with focal liver lesions, 28(39.21%) male and 23(45.09%) female, aged between 34 and 83 years; 5 patients were diagnosed with acute kidney injury(9.80%). Of the 51 patients who underwent CEUS examination, 29(56.87%) had malignant lesions[11(21.57%)-hepatocellular carcinoma(HCC), 15(29.42%)-liver metastasis, 3(5.88%)-cholangiocarcinomas] and 22(43.13%) had benign lesions[3(5.88)-cyst hepatic, 3(5.88%)-focal nodular hyperplasia(FNH), 7(13.73%)-hemangioma, 3(5.88%)-adenoma, 6(11.76%)-regenerative nodules]; CEUS had diagnostic value(typical aspect of vascular pattern in 42(82.35%) cases, 24(57.14%)malignant and 18(42.86%) benign. For the other 9 cases contrast-enhanced CT/MRI was performed. CEUS suspicion was confirmed in 5 cases; only 4 cases were incorrectly classified(1 cholangiocarcinoma interpreted as HCC, 1 regenerative nodule as cholangiocarcinoma, 1 adenoma as hemangioma, 1 FNH as adenoma). Overall, CEUS had established the diagnosis in 47 out of 51 cases(92.15%). Liver metastasis, hemangiomas, FNH recorded the best diagnostic performance, and cholangiocarcinomas and adenoma registered lower performance.

CONCLUSION: We concluded that CEUS imaging has a high diagnostic performance in incidental focal liver lesions and may be complementary when the diagnosis is uncertain; among patients with chronic kidney disease or other contrast contraindications, CEUS has potential as an imaging test to rule out malignancy.

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THE THREAT OF CARBAPENEM RESISTANCE IN EASTERN EUROPE IN PATIENTS WITH DECOMPENSATED CIRRHOSIS ADMITTED TO INTENSIVE CARE UNIT

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KEYWORDS: cirrhosis; ICU; multidrug resistant organisms

INTRODUCTION: Multidrug-resistant organisms are an increasing concern in patients with decompensated cirrhosis.

AIM: We aimed to evaluate the prevalence of infections with carbapenem-resistant Enterobacteriaceae in patients with decompensated cirrhosis.

MATERIAL AND METHOD: Patients with decompensated cirrhosis admitted to ICU were included. The isolated Enterobacteriaceae strains were tested for carbapenemase-producing genes using the Roche LightMix® Modular VIM/IMP/NDM/GES/KPC/OXA48-carbapenemase detection kit.

RESULTS AND CONCLUSIONS: 48 culture-positive infections were registered in 75 patients with acutely decompensated cirrhosis. Thirty patients contracted a second infection. 46% of bacteria isolated at admission and 60% of bacteria responsible for infections identified during ICU-stay were multiresistant. ESBL+ Enterobacteriaceae were predominant at admission, while carbapenem-resistance was dominant in both Enterobacteriaceae and Non-Fermenting-Gram-Negative Bacteria responsible for infections diagnosed during hospitalisation. OXA 48 or KPC type carbapenemases were present in 30% of the analyzed Enterobacteriaceae and in 40% of the phenotypically carbapenem-resistant Klebsiella pneumoniae strains. The length of ICU stay was a risk-factor for a second infection (p=0.04). Previous carbapenem usage was associated with occurence of infections with carbapenem-resistant Gram-negative bacteria during hospitalization (p=0.03).
The prevalence of infections with carbapenem-resistant Enterobacteriaceae is high in patients with decompensated cirrhosis admitted to ICU. Carbapenemase-producing genes in Enterobacteriaceae in our center are bla OXA-48 and bla KPC.

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EVALUATING THE CONCORDANCE BETWEEN ULTRASOUND AND TRANSIENT ELASTOGRAPHY FINDINGS IN YOUNG PATIENTS WITH NAFLD

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KEYWORDS: cNAFLD, transient elastography, ultrasonography

INTRODUCTION: Non-alcoholic fatty liver disease (NAFLD) has become increasingly common, affecting about one fifth of the population in the developed countries. Our aim was to assess the concordance between the ultrasound aspect and the transient elastography results (using Fibroscan®) among young patients with NAFLD.

MATERIAL AND METHODS: We performed a retrospective study including young adult patients (18-40 years), diagnosed with liver steatosis in the past 3 months in the Gastroenterology Department from the Sf Spiridon County Clinical Emergency Hospital, Iasi, based on ultrasonographic findings. The patients underwent a further biological evaluation and transient elastography, registering controlled attenuation parameter (CAP) and fibrosis level.

RESULTS AND CONCLUSIONS: 52 young adult patients with liver steatosis were included in the study, with an average age of 28.6 years, 29 male and 21 female patients, 78,8% from urban area. For 23,07% of the included patients, the steatosis level evaluated through transient elastography was framed as S0. Only 13.4% had severe steatosis (S3) and the majority of patients (63,53%) had mild or moderate steatosis (S1, S2 respectively) according to transient elastography evaluation. Among the patients with S0 steatosis following transient elastography evaluation, 91,8% had F0-F1 fibrosis, and among the patients with confirmed steatosis using Fibroscan, independent of the steatosis degree (S1-S3), 3 patients had advanced fibrosis. Although there was a significant concordance between ultrasound and transient elastography findings, there could be a slight overestimation of steatosis among young patients solely based on ultrasound findings.

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RISK OF DIABETES IN PATIENTS WITH HEPATITIS B AND C VIRAL INFECTIONS STAGED AS PART OF THE LIVE(RO)2-SUD SCREENING PROJECT

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A rare case of canal anal duplication in a female diagnosed after the age of 25 years and a review of the disease.

KEYWORDS: diabetes, screening, viral hepatitis infections

INTRODUCTION: We are currently conducting a screening project in vulnerable population that is intended to provide preventive medical services, screening, diagnosis and therapy for patients detected with chronic HBV and HCV infection in the South of Romania. Since October 2021, 285 patients detected with B/D or C viral hepatitis infections were allocated to Fundeni Clinical Institute for staging and treatment of viral infections.

MATERIALS AND METHODS: This study is a prospective study, conducted in Fundeni Clinical Institute, between 15th of October 2021 and 15th of May 2022. For all patients we have recorded demographic, biochemical, Fibroscan CAP® data; FINDRISC score for identifying patients with high risk of developing diabetes and AUDIT questionnaire were applied. Data were analyzed using two sample t-test and Chi-square test.

RESULTS: From 285 patients, 71 (24.9%) returned for evaluation, with a median age of 57.15 ±14.12 years, with a female predominance (66%) and HCV infection (69%). 45.1% (32) patients were diagnosed with arterial hypertension, and 17 patients (23.9%) associated smoking as a cardiovascular risk factor.
There were the following significant differences between HCV and HBV infected patients: older ($p < 0.0001$), higher FINDRISC score (10.2±4.5 vs 6.8±3.4, $p = 0.001$), higher AST ($p < 0.0001$), higher GGT ($p < 0.0001$), higher glycaemia ($p = 0.001$). AUDIT score did not differ between patients with HCV and HBV infection ($p = 0.89$). There is a significant association between FINDRISC score >9 and advanced fibrosis (F3-F4 METAVIR) ($p = 0.007$), as well as steatosis grad III ($p = 0.0$). FINDRISC score >9 was more frequent in females ($p = 0.008$), in non-smokers ($p = 0.04$) and in patients with a higher AUDIT score ($p = 0.04$).

CONCLUSIONS: Patients with chronic hepatitis C are older and with higher risk of developing type II diabetes. Patients with a higher risk of developing diabetes mellitus had advanced fibrosis and steatosis >66%, were females and drank more alcohol although smoked less.

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ROLE OF LIVER INJURY ON THE SEVERITY AND PROGNOSTIC OF SARS-COV2 INFECTION

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KEYWORDS: SARS-COV2, liver injury

INTRODUCTION: SARS-COV 2 infection mainly causes respiratory symptoms, but there is a wide spectrum of manifestations including liver injury characterized by liver enzyme elevation and hepatobiliary symptoms. Liver injury in patients with SARS-COV2 infection has many causes including severe inflammatory response, drug-induced liver injury, anoxia, direct cytotoxicity and decompensation of pre-existing liver diseases. Our aim was to evaluate the prevalence, characteristics and prognostic implications of liver injury in patients diagnosed with SARS-COV 2 infection.

METHODS: We report a case series of 70 patients diagnosed with SARS COV 2 infection hospitalized in Gastroenterology Department of a tertiary centre from Romania.

RESULTS: We found a significant percentage of patients with liver injury at admission characterized by increase of AST (91% of patients), ALT (70% of patients) and total bilirubin (8,6%). The prevalence of hypoalbuminemia was 12,8%. The majority of patients (87%) did not have a diagnosis of liver disease prior to hospitalization for SARS-COV 2 infection. As well, half of the patients included in our study had a severe form of SARS-COV 2 infection and the rate of ICU admission was 20% while the mortality rate was 18%. Male patients have a higher risk of experiencing liver injury due to SARS-COV 2 infection than females with higher levels of AST ($p = 0,36$). Elevated ferritin level is a strong predictor for liver injury ($p = 0,006$) while Fib-4 index is a strong predictor for mortality ($p = 0,026$).

CONCLUSIONS: Liver injury correlated with the severity of SARS COV2 infection and mortality could help clinicians to establish the prognosis and management of patients with SARS-COV 2 infection.

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MAGNETIC RESONANCE SPECTROSCOPY IN HEPATIC ENCEPHALOPATHY: SYSTEMATIC REVIEW AND META-ANALYSIS

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KEYWORDS: hepatic encephalopathy, MRI spectroscopy, meta-analysis

INTRODUCTION: The impact of hepatic encephalopathy (EH) on the patient's prognosis is often underestimated. MRI spectroscopy (MRS) offers the possibility of studying in detail

the pathophysiology of this condition. This review aimed to systematize and analyze the results of studies using MRS for the diagnosis of hepatic encephalopathy.

MATERIAL AND METHOD: To conduct this systematic review, a rigorous protocol was followed, indexed in the Prospero database (CRD42018109935), in accordance with PRISMA criteria. The studies included in the meta-analysis used 1H-MRI spectroscopy (1H-MRS), and the data were stratified according to the brain metablyte examined - N-acetylaspartate (NAA), myo inositol (mI), cholin (Cho) and glutamate/glutamine (Glx), trying to characterize the differences between healthy volunteers, cirrhotic patients without EH (CH), patients with minimal EH (MHE), patients with clinical EH (OHE). For each comparison, the randomized effect model was used to calculate the average standard deviation (SMD) and 95% CI in the Comprehensive Meta-Analysis® software program (version 3).

RESULTS: The systematic search identified 44 studies that met the inclusion criteria, and of these 36 were included for quantitative analysis. With the progression of hepatic encephalopathy, the concentration of mI progressively decreases in the parietal lobe ($p<0.0001$) and in the occipital lobe ($p<0.0001$), as well as the concentration of Cho in the parietal lobe ($p<0.0001$) and the basal ganglia ($p<0.0001$), while the concentration of Glx increases in all regions examined ($p<0.0001$). With regard to the differentiation between MHE and CH, the concentration of mI was lower in the parietal lobe ($p<0.001$) and occipital ($p=0.001$), Cho was lower in the parietal lobe ($p=0.007$), while the Glx concentration was higher in all regions examined ($p<0.01$).

CONCLUSIONS: MRS can differentiate with very good accuracy between cirrhonic patients with MHE versus those without MHE, based on concentrations of myo-inositol, choline and glutamate/glutamine in the parietal lobe.

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POST-TIPS HEPATIC ENCEPHALOPATHY MAY BE DELAYED WITH COMBINATION THERAPY OF LACTULOSE AND RIFAXIMIN

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KEYWORDS: hepatic encephalopathy, TIPS, rifaximin

INTRODUCTION: The development of post-transjugular intrahepatic portosystemic shunt (TIPS) hepatic encephalopathy is a common (20-54%) and often severe complication. This study aimed to evaluate the predicting factors for developing hepatic encephalopathy in post-TIPS patients in relation to the prophylactic treatment with Rifaximin.

MATERIAL AND METHOD: Fifty cirrhotic patients with TIPS indication were prospectively enrolled at a tertiary hospital, in Romania. All patients were tested prior to TIPS placement for minimal hepatic encephalopathy (MHE) using the psychometric hepatic encephalopathy score (PHES), critical flickering frequency (CFF) and Stroop Encephalapp test. A PHES score of less that -4 was defined as MHE. Prophylactic treatment for post-TIPS OHE consisted of Lactulose and Rifaximin.

RESULTS: The etiology of liver cirrhosis was alcohol in 26 (52%) patients, viral in 15 (30%), mixt in 5 (10%) and others in 4 (8%). The Child-Pugh class was A in 16 (32%) patients, B in 24 (48%) and C in 10 (20%), while mean MELD-Na was 14.8 ± 6.13. MHE was present in 17 (34%) patients prior to TIPS placement, while 12 (24%) had a positive history of OHE. Patients were followed-up post-TIPS on a median of 14 months and 14 patients (28%) developed OHE. All patients who developed OHE were on prophylactic treatment with Lactulose and Rifaximin and a precipitating factor was identified in 9 (64%) patients. A history of OHE pre-TIPS was identified as risk factor (OR=10.67, p=0.002) for developing post-TIPS OHE, while age, Child-Pugh or MELD-Na scores, presence of MHE pre-TIPS, post-TIPS HVPG were not predictors (all $p>0.05$).

CONCLUSIONS: Post-TIPS hepatic encephalopathy is associated with a history of OHE events prior to the procedure and may be delayed with prophylactic treatment with Lactulose and Rifaximin.

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THE ROLE OF CLINICAL AND BIOLOGICAL FACTORS IN PREDICTING MORTALITY OF PATIENTS WITH ALCOHOLIC HEPATITIS

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KEYWORDS: alcoholic hepatitis; mortality, prognostic scores

BACKGROUND: Alcoholic hepatitis (AH) is characterized by high mortality, especially in the first 30 days, in severe forms defined by a Maddrey`s Discriminant Function>32. The aim of this study was to evaluate prognostic factors for mortality rate in hospitalized patients with AH.

MATERIAL AND METHODS: A retrospective study was performed in a Tertiary Department of Gastroenterology, which

included 158 patients (female 18%, male 82%, mean age 54 years) with clinical and paraclinical based criteria for AH. All included patients presented liver cirrhosis. Response to corticotherapy was assessed by Lille score at 4 (LM4) days, not 7 days. Severe AH was defined by MDF>32. Prognostic scores such as Child Pugh (CP), Model for end stage liver disease (MELD), LM4, Glasgow Alcoholic Hepatitis Score (GAHS) were calculated and kidney failure, hepatic encephalopathy, presence of variceal bleeding or bacterial infections were evaluated in relation to patients survival. Multivariate regression model was used to determine factors related to mortality.

RESULTS: Overall mortality-rate for hospitalized patients was 27/158 (17.1%). In 27.8% (44/158) of patients with MDF< 32 a total of 7/44 (15.9%) developed encephalopathy, while in MDF>32 group (114/158) 72.15%, 39/114 (34.2%) developed encephalopathy (p-value<0.001). Significant differences in the 2 groups were found in the proportions of bacterial infections on admission and the necessity of corticoid therapy with the highest prevalence in severe AH. The laboratory parameters showed significant alteration from the normal range in patients with Maddrey's score higher than 32 (p-value<0.001). In multivariate regression model significant independent risk factors for mortality were the development of encephalopathy (OR=5.8; p-value<0.001), neutropenia (OR=4.6; p-value<0.001), and thrombocytopenia (OR=4.1, p-value<0.001). In terms of prognostic scores, LM4 score was the most accurate predictor of mortality (AUROC = 0.79; p-value<0.001).

CONCLUSIONS: Development of hepatic encephalopathy and LM4 score were significant independent risk factor for mortality in patients with AH.

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VISCOSITY PLANE-WAVE ULTRASOUND FOR THE ASSESSMENT OF LIVER INFLAMMATION IN HEPATOCITOLYSIS SYNDROME

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KEYWORDS: elastography, viscosity, hepatocitolysis

INTRODUCTION: It is well-known that liver necroinflammation plays a key role in the process of hepatic fibrogenesis, thus there are several studies that assessed different methods for the evaluation of necroinflammatory activity in liver diseases. Viscosity Plane-Wave UltraSound (Vi.PLUS) 2D imaging mode, a parameter embedded in 2D - ShearWave Elastography (2D-SWE) ultrasound machine allows the quantification of tissue viscosity,

which has been demonstrated to be is associated with liver inflammation due to shear wave dispersion. Hence, we aimed to assess the necroinflammatory activity in patients with hepatocitolysis syndrome.

MATERIAL AND METHODS: We prospectively enrolled consecutive patients referred by primary care physicians to the Institute of Gastroenterology and Hepatology, Iași with high transaminase levels (ALT or AST ≥ 50 U/L), between September 2021 to February 2022. All participants were evaluated using Aixplorer MACH 30 (Supersonic Imagine, Aix-en-Provence, France) ultrasound machine equipped with 2D-SWE.PLUS for quantifying liver fibrosis (LSM), Sound Speed Plane-wave UltraSound (SSp.PLUS) concomitant with Attenuation Plane-wave UltraSound (Att.PLUS) for liver steatosis, and Vi.PLUS for liver viscosity assessment.

RESULTS: In total, 83 patients (54.2% females, mean age 55.2 ± 15.05, BMI 25.69 ± 4.77 kg/m2) were included in our study. Valid measurements, according to guidelines, were obtained in 81 (97.6%) patients, and they were included in the final analysis. Among them 18 (21.7%) patients declared chronic alcohol consumption (> 30 g/day), and 6 (7.2%) patients tested positive for viral hepatitis (2.5% HBsAg, 4% HCV antibody). Forty-one (50.6%) patients were diagnosed with liver steatosis (SSp.PLUS ≤ 1537 Pa.s) with a mean SSp.PLUS of 1485 ± 36.89 m/s, and Att. PLUS of 0.44 ± 0.11 dB/cm/MHz. Regarding LSM, 61 (75.3%) patients had F0-1 (< 8 kPa) , 11 (13.6%) F2-3 (8-12.4 kPa), and 9 (11.1%) in F4 (≥12.5 kPa) degree, with a mean 2D-SWE.PLUS of 8.3 ± 7.18 kPa. 50 (61.7%) patients present an increased liver viscosity (≥ 1.8 Pa.s.) with a mean Vi.PLUS of 1.96 ± 0.50 Pa.s, being strongly correlated with ALT (r = 0.405, p <0.001), AST (r = 0.573, p <0.001), BMI (r= 0.284, p = 0.005), LSM (r = 0.803, <0.001), SSp.PLUS (r = 0.413, p <0.001), and Att.PLUS (r = - 0.331, p = 0.003). Participants with chronic alcohol consumption had an increased Vi.PLUS [2.35 ± 0.77 vs. 1.86 ± 0.35 Pa.s (p < 0.008)] with an increased risk of liver necroinflammation (OR 2.13, 0.62 − 7.32, p <0.001) than nonalcoholic subjects. Moreover, patients with abnormal AST level had an increased risk of liver inflammation (OR 1.34 CI 0.52 − 3.42, p = 0.031), while an AST value of 72 U/L could modestly predict a ViPLUS score > 2.2 Pa.s (moderate liver inflammation) (ROC curve = 0.649, Sp = 75 , Ss = 57%).

CONCLUSION: Vi.PLUS parameter represents a novel tool for non-invasive liver inflammation assessment which correlates with both fibrosis and steatosis ultrasound parameters, thus being a promising and a highly interesting method for disease staging in patients with NAFLD and abnormal liver enzymes.

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FEATURES AND OUTCOME OF ACUTE HEPATITIS E INFECTION AMONG PATIENTS WITH CIRRHOSIS

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KEYWORDS: hepatitis E, cirrhosis, ACLF.

INTRODUCTION: With at least two million locally acquired infections in Europe every year, hepatitis E viral infection (HEV) represents a significant cause of morbidity and mortality, especially in patients with chronic liver disease or immunocompromised states.

AIM: We aimed to assess the features of hepatitis E infection in our center and evaluate the impact of HEV infection in patients with advanced liver disease.

MATERIAL AND METHODS: All consecutive patients detected with HEV RNA viremia and/or anti-HEV IgM antibodies, and elevated transaminases between January 2019 and March 2022 were retrospectively included.

RESULTS: Ninety-two patients were included (mean age was 59±15, 69.6% were males). HEV infection affected 15 patients with diabetes (16.3%), 8 (8.7%) with malignancy, one patient (1.1%) was immunosuppressed (post kidney transplant therapy), 14 (15.2%) with choledocholithiasis, and 35 patients (38.0%) had cirrhosis. A total of 21 (23.1%) cases received treatment with Ribavirin.
Out of cirrhotic patients, 31 (88.6 %) were decompensated, and 19 (54.3%) were documented as having acute on chronic liver failure (ACLF). Ten patients (52.6%) with HEV-related ACLF also had associated alcoholic hepatitis, significantly higher than the HEV non ACLF group (p=0.04). A total of 12 deaths (13%) were recorded during hospitalization, of which 11 had cirrhosis (90.9% had ACLF, p=0,01).
Univariate analysis revealed that cirrhosis (OR=25.66, 95% CI 3.13-210.06, p=0,002), acute alcoholic hepatitis (OR=7.0, 95% CI 1.88-25.97, p=0,004) and ACLF (OR=23.33, 95% CI 2,58-210,36, p=0.005) were associated with death. On multivariate analysis the only predictor of mortality was the presence of ACLF (p =0.02).

CONCLUSIONS: Hepatitis E virus infection is a common cause of viral hepatitis and carries a significant risk of cirrhosis decompensation, ACLF and mortality. Additional precipitating factors, mainly alcoholic hepatitis is associated with higher risk of ACLF in HEV cirrhotic patients.

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INTRAHEPATIC CHOLANGIOCARCINOMA WITH LONG SURVIVAL – A CASE SERIES

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KEYWORDS: aintrahepatic cholangiocarcinoma; multidisciplinary approach; long term survival

INTRODUCTION: Intrahepatic cholangiocarcinomas (IHCC) are lethal malignancies with more aggressive tumor biology than the hepatocellular carcinomas. The 5-year survival rates after curative resection are between 15-40%. We report a serie of 6 patients with a survival rate higher than 7 years and we analyze prognostic factors associated with long-term survival rates.

MATERIALS AND METHOD: This report includes 6 patients diagnosed with IHCC, treated at Fundeni Clinical Institute, from 2011 to 2022 (present), with survival rates between 4 and 10 years and receiving multimodal treatment.

RESULTS AND CONCLUSIONS: Of the 6 patients, one patient survived 10 years. 4 of the 6 patients included in the study are alive at the time of presentation. At the time of diagnosis, 4 patients had surgical treatment with curative intent, one, radiofrequency ablation (RFA) and one only biopsy. 2 patients relapsed at 1 year after diagnosis, another 2 patients at 3 years and one at 5 years after diagnosis. For liver recurrence, alcoholization, radiofrequency ablation and stereotactic irradiation were performed. Chemotherapy regimens based on Gemcitabine or fluoropyrimidines +/- platinum derivates have been used for extrahepatic metastases. The best results were seen in patients undergoing surgery/RFA followed by systemic therapy. However, due to the rarity of IHCC, little is known about the optimal treatment strategy beyond surgical resection. There are also patients with IHCC who exceed survival rates given in the literature and who would need assessments of the entire tumor genome to choose the most appropriate treatment.

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REAL-WORLD EXPERIENCE WITH REGORAFENIB IN ADVANCED HEPATOCELLULAR CARCINOMA

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KEYWORDS: aRegorafenib, hepatocellular carcinoma, second-line

INTRODUCTION: Hepatocellular carcinoma is the most common type of liver cancer. In general, patients present with advanced-stage disease, when local, curative therapies are not indicated, systemic therapy being their only option: Sorafenib, Lenvatinib or Atezolizumab plus Bevacizumab.
Several options are available for second-line treatment at patients

with advanced hepatocellular carcinoma who progressed on Sorafenib, including tyrosine-kinase inhibitors Regorafenib, Cabozantinib and Ramucirumab, their effectiveness being supported by several clinical trials such as RESORCE, CELESTIAL and REACH. RESORCE clinical trial has shown that Regorafenib achieved a median overall survival improvement in patients with unresectable hepatocellular carcinoma who progressed after treatment with Sorafenib.

MATERIALS AND METHOD: We included 23 patients diagnosed with advanced hepatocellular carcinoma, from July 2020 until January 2022, who had progressed after Sorafenib treatment and who were subsequently treated with Regorafenib.

RESULTS AND CONCLUSIONS: Regarding patient characteristics, the majority were male patients, 18 were diagnosed with hepatitis B, D or C virus infection, 17 had a BCLC (Barcelona Clinic Liver Cancer) stage C and 10 patients had metastatic disease at diagnosis.
The median progression-free survival under Regorafenib was 10.5 months and the median overall survival was 15.1 months. Of the 23 patients included in the study, 10 of them had stable disease, 3 patients had progressive disease and 10 patients have not been yet evaluated. The main reason for Regorafenib discontinuation was radiological progression in 8 cases, followed by clinical progression in 5 patients and adverse events in 2 patients. The most common side effects were fatigue, loss of appetite, diarrhea and hepatic cytolysis, with only one patient experiencing hand-foot skin reaction.
Regorafenib has demonstrated second-line efficacy in advanced hepatocellular carcinoma at patients who progressed after treatment with Sorafenib.

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ABDOMINAL EPILEPSY – CHALLENGE IN DIAGNOSIS OF ABDOMINAL PAIN

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KEYWORDS: temporal lobe epilepsy, abdominal pain

INTRODUCTION: Abdominal epilepsy is a variant of temporal lobe epilepsy commonly seen in pediatric age group. Adult patients with abdominal epilepsy typically have recurrent abdominal symptoms associated with neuropsychiatric manifestations. Because clinical suspicion is crucial for an adequate diagnosis, physicians should be aware of the existence of abdominal epilepsy in both children and adults.

CASE PRESENTATION: We present the case of a 50-year-old female patient with no previous significant medical history who was referred by the general practitioner for atypical abdominal pain. She had numerous admissions in the Emergency Department for recurrent clusters of abdominal pain since one year. The pain originated in the left iliac fossa and radiate to the umbilical area with obvious distress, occasionally associated with lose stools and vomiting. Each episode would last up to 10 minutes, and episodes would vary from 1 to 10 episodes every day. These episodes began to recur almost every day, several times a day, and at unexpected moments, unrelated to food intake or diurnal variation. Pain was concurrent with severe headache, dizziness, extreme anxiety and lethargy. Abdominal MRI, gastrointestinal endoscopy, and blood chemistry results were within normal range. Abdominal migraine and porphyria were ruled out considering the duration of episodes, lack of any family history and absence of other findings supportive of porphyria. Abdominal epilepsy was then considered as the diagnosis and was supported by electroencephalogram (spike and slow wave complexes in bilateral leads) after neurological evaluation. Patient was started on tablet sodium valproate sustained release 600mg in two divided doses. The patient reported an immediate improvement in subjective experience of symptoms.

CONCLUSIONS: Abdominal epilepsy in adults can be masked or misdiagnosed as a physical or psychological disorder. Creating awareness among physicians is important to be aware of organic etiologies arising in patients with presumed functional symptoms.

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ATYPICAL CASE OF SPLENOMEGALY: SARCOIDOSIS WITHOUT PULMONARY INVOLVEMENT- CASE REPORT

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KEYWORDS: splenomegaly, sarcoidosis

BACKGROUND: Sarcoidosis is a chronic multisystemic disease of unknown etiology. Isolated extrapulmonary manifestations of sarcoidosis are rare, occurring in only 10% of cases.

CASE REPORT: Here we report the case of a 59-years-old woman who was admitted in Gastroenterology Department for the investigation of a cholestatic syndrome and isolated splenomegaly. The patient was diagnosed with slightly elevated liver enzimes 8 years prior the presentation. The laboratory results showed elevated cholestasis enzymes. She had a mild anemia. Further, a computed tomography (CT) scan was performed and releaved hepatosplenomegaly, the spleen size was 190/97mm with inhomogenous aspect of spleen parenchyma, with multiple confluent hypodense lesions in over 90% of the parenchyma, with dilatation of splenic vessels and portal vein; there were also described multiple groups of enlarged lymph nodes in the abdominal perivascular stations and retroperitoneum, with maximum diameter 27mm. A bone marrow biopsy was performed. The biopsy described non-caseous granulomatous infiltration of bone marrow. This finding led to a high probability diagnosis of bone marrow sarcoidosis with hepatic and spleen involvement. The serum level of angiotensin-converting enzyme was elevated 117 U/L (normal value 20-70 U/L). Since the patient had recurrent abdominal pain, it was performed the splenectomy. The spleen was 270x195x85mm with a weight of 1511 grams. Histopathological result described granulomatous infiltration. Chest X-ray and thoracic computer tomography were negative, without lesions suggestive for pulmonary sarcoidosis.

CONCLUSIONS: Splenic involvement with massive splenomegaly like in our patient is rare. Splenectomy is recommended in patients with non-responsive medical treatment, in persistent hypersplenism, in patients with severe pain and as prophylaxis for splenic rupture and for malignancies exclusion. The case describes an atypical clinical onset of sarcoidosis and emphasizes the importance of recognition the diagnosis in adults presenting with elevated liver enzymes before progression to liver cirrhosis and other organs involvement.

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CORRELATION BETWEEN ALTERATIONS OF GUT-BRAIN AXIS AND PROLONGED POST-INFECTIOUS DIARRHEIC SYNDROME IN PATIENTS WITH SYSTEMIC SCLEROSIS

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KEYWORDS: sclerosis, dysbiosis, diarrhea

INTRODUCTION: Recent analyses of patients with systemic sclerosis indicate that the gut-brain axis plays a crucial ethiopathogenetic role, responsible of various clinical manifestations . The gut-brain axis can be considered as a bi-directional multi-crosstalk pathway that governs the interaction between the gut microbiota and the organism. It therefore seems that inflammation in the gut can indeed result in activation of cytotoxic T lymphocytes that can travel to the central nervous system where they can induce inflammatory damage with subsequent demyelination and axonal loss, clinically manifested as intestinal transit disorders.

MATERIAL AND METHODS: Treatment and follow up of a patient with prolonged post-infectious diarrheic syndrome, occured on the background of a systemic sclerosis with digestive and respiratory impairment. Comparative analysis of existent data in literature regarding the etiopathogenesis of intestinal dysbiosis in patients with systemic sclerosis and therapeutic alternatives.

RESULTS: Six weeks after the diagnosis and treatment of a Clostridium Difficile infection, a patient with a personal history of systemic sclerosis admitted in our Department had severe diarrhea, emetic syndrome and anorexia. No infectious cause was detected We related her diarrheic syndrome to an intestinal dysbiosis. Systemic neuroinflammation is responsible for intestinal dysbiosis that promotes bacterial translocation, local and systemic inflammation and alters the enteric parasympathetic nervous response. The imbalance of the intestinal microbiota in patients with systemic sclerosis consists of a reduced number of Bacterioides, Firmicutes, Faecalibacterium, Prevotella and Anaerostipes species.

CONCLUSIONS: Microbiota restoration with probiotics based on Lactobacillus Rhamnosus, Bifidobacterium, Prevotella Histolitica can improve both neurological and intestinal symptoms. A vegetarian diet rich in propionic acid or intermittent fasting strategies may have an enteral immunomodulatory effect and may promote the development of Lactobacillius species.

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EFFICACY AND SAFETY OF FOLFOX-BEVACIZUMAB IN PROGRESSIVE METASTATIC NEUROENDOCRINE TUMORS

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INTRODUCTION: Neuroendocrine Tumors (NETs) well-differentiated are relatively rare and highly vascularized neoplasms expressing VEGF receptors. Anti-angiogenic treatments have shown encouraging results in patients with advanced NETs.

THE AIM of this study was to report the effectiveness and safety of the FOLFOX-bevacizumab combination in patients with metastatic NETs.

PATIENTS AND METHODS: We studied retrospectively all consecutive patient records with well-differentiated digestive NETs, metastatic and histologically proven, treated with FOLFOX-bevacizumab, in an expert center, from 2019 to 2021. The primary endpoint was the time to treatment failure, and the secondary endpoints were objective response rate and toxicity.

RESULTS: We included 19 patients (63% men, median age 60). The primitive was mainly the pancreas (68%), the small intestine (15%) or the lungs (5%), most patients (58%) had extrahepatic metastases and 37% of patients had bone metastases. Grade 1 NETs, grade 2 and grade 3 respectively accounted for 5%, 53% and 42% of cases, with a median Ki-67 of 21%. The patients were treated with FOLFOX-bevacizumab due to progression (79% cases, 2 previous lines , or first line for metastatic disease (21%). Patients have received a median of 17 cycles of FOLFOX-bevacizumab, including a median of 10 maintenance cycles per bevacizumab and/or LV5FU2. The median for treatment failure was 15.5 months. Rates objective response and disease control were respectively of 42% and 95%. The most common grade 3/4 toxicities were peripheral neuropathy (47%), asthenia (16%), arterial hypertension (11%) and neutropenia (11%).

CONCLUSION: The FOLFOX-bevacizumab combination has promising efficacy in patients with NETs progressive metastases, especially in those with G3 NETs, for which the optimal treatment is still poorly defined.

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THE ETIOLOGICAL PROFILE OF THE ACUTE ABDOMINAL PAIN IN HEPATO-GASTROENTEROLOGICAL EMERGENCIES

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KEYWORDS: abdominal pain, emergency

INTRODUCTION: The pathologies manifested by acute

abdominal pain (AAP) are varied and constitute a real triage issue for an emergency reception service. Our objective was to evaluate the prevalence of the different aetiologies of AAP encountered in the emergency unit (EU) in order to provide diagnostic and therapeutic recommendations improving the quality of primary care.

PATIENTS AND METHODS: Retrospective, descriptive and analytical study, spread between 2020-2021, collecting 1902 patients consulted in the EU of the County Hospital in Oradea. The data of were collected through archived files with respect for confidentiality, analysed on an Excel file.

RESULTS: Total 1902 patients, with an average age of 47.2 years (17-92years) with a slight female predominance (56%). 96.2% presented for AAP in the foreground, mostly diffuse (38.4%), associated with diarrhoea (13.66%), vomiting (65.1%), digestive bleeding (18.2%) and ileus (16.4%). 31.2% of the patients benefited from an abdominopelvic scanner and 61.2% from an abdominal ultrasound. The standard X-ray showed pneumoperitoneum (5 cases), air-fluid levels (184 cases) indicating occlusion. The aetiologies are dominated by acute pancreatitis (11.5%) cases, occlusions (18.3%), collections/abscesses (2.1%), peritonitis (12.3%), gastro-duodenal ulcers (9.8%), gastritis (5.3%) appendicitis (6.5%), calculous cholecystitis (11%) and no-calculous cholecystitis (11.2%), diverticulitis (2.5%), inflammatory bowel disease (1.9%) and complicated hernia (4.3%). Neoplastic pathology is reported in (1.9%) cases and AAP of extra-digestive causes (cardiovascular, respiratory, urinary, gynaecological) was found in 1.4%. All our patients received medical, symptomatic or specific treatment (42% were operated).

CONCLUSION: Despite the information bias induced by the poor archiving of patients during their consultation in the EU, it clearly demonstrates the richness of the pathologies manifested by AAP, some of which is potentially fatal in the short term and the majority of which requires surgical treatment; hence the importance of developing guidelines directing rapid management of patients limiting morbidity and mortality.

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GASTROINTESTINAL DISEASES AND SARS COV2 INFECTION IN A TERTIARY CENTER IN ROMANIA

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KEYWORDS: gastrointestinal diseases, SARS CoV 2 infection, severity

BACKGROUND: The COVID 19 pandemic has caused one of the worst public health crises in modern history. Even if the severe acute respiratory syndrome associated with SARS CoV2 primarily affects the respiratory tract, gastroenterological impairment may also be part of the manifestations.

AIM: Analysis of the impact of SARS CoV 2 infection on patients with digestive disorders. Material and method. We conducted a retrospective study that included 150 patients admitted to the Institute of Gastroenterology and Hepatology, Iasi, between December 2020 and December 31, 2021 with SARS-CoV2 infection. Demographic data, specific symptoms of the infection, scores of severity of digestive disorder, severity of SARS-CoV2 infection, O2 requirement, ATI requirement, death.

RESULTS: Male patients predominated (56%), the most severely affected were the age groups 61-70 years, 71-80 years, but without statistically significant differences compared to the other age groups (p = 0.02118). Digestive pathologies were extremely varied, with cases of liver cirrhosis (42%) and choledochal lithiasis (13%) predominating. There is an increased incidence of Clostridium difficile infections (11%). Most patients had multiple comorbidities, but these did not significantly affect the severity of SARS CoV2 infection: (hypertension p = 0.97, DM p = 0.19). Moderate and severe forms of SARS CoV2 infection were found in 44% of patients. More than half of the patients needed oxygen supplementation.

CONCLUSION: SARS CoV2 infection has led to a worsening of digestive diseases, with a strong correlation between the severity of the infection and the severity of the digestive disorder.

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HOW COVID- 19 CAN COVER A NEUROENDOCRINE TUMOR?

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KEYWORDS: COVID-19, diarrhea

INTRODUCTION: Small bowel neuroendocrine tumors (NETs) are neoplasms able to secrete various neurohormones affecting gut motility and cause a wide range of symptoms which overlap numerous digestive disorders. The new COVID-19 pandemic has been initially linked to respiratory manifestations. However, there is evidence that other systems are affected. Diarrhea commonly occurs in people with COVID-19.

CASE PRESENTATION: A 42-year-old female with a medical history of gastroesophageal reflux disease presented to hospital for a 6-months history of watery diarrhea consisting of 4-5 episodes/day with intermittent upper abdominal pain. She also reports having an intermittent dry cough, dyspnea, and mild

elevation of blood pressure for 2 months. Physical examination was unremarkable. Laboratory parameters and stool samples were assessed, and no abnormal findings were discovered, except for mild lymphopenia. She tested positive for COVID 19 infection, and antiviral treatment was initiated. Liver ultrasound revealed diffuse increase of liver echogenicity. Upper endoscopy and colonoscopy were performed, and the CT scan showed confirmed a 20 mm ileal lesion. The histological examination of the biopsy specimens suggested a neuroendocrine tumor. Immunohistochemistry was positive for chromogranin A. 5-hydroxyindoleacetic acid, Chromogranin A and serotonin levels were assessed with increased values. Octreotide was initiated and ileal resection was performed with good outcome for the patient.

CONCLUSION: NETs a rare form of malignances with nonspecific clinical manifestation, and this is why they are frequently not readily considered in the differential diagnosis. NETs with ileal localization frequently are asymptomatic and most patients with carcinoid syndrome associate liver metastases at onset. This case is focused on diarrhea as cardinal symptom in ileal NETs without metastasis. In COVID-19 diarrhoea may be an isolated symptom, develop in conjunction with other GI symptoms without respiratory symptoms or develop prior to respiratory affection.

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THE IMPACT OF COVID-19 ON GASTROENTEROLOGY DEPARTMENT

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KEYWORDS: COVID-19, liver injuries, hepatic impairment

INTRODUCTION: The activity of the Gastroenterology Department in the Emergency University Hospital of Bucharest has temporarily changed, becoming a COVID-19 Department, where we noticed an increased prevalence of liver injuries associated with this disease.

MATERIALS AND METHODS: We conducted a retrospective observational study. We aimed to evaluate clinical and paraclinical characteristics of patients with COVID-19 and to investigate the impact of liver injury on COVID-19 severity.
There have been included all the patients older than 18 years, without previously known liver disease, admitted to the Gastroenterology Department with moderate to severe SARS COV2 infection from the period of January 1, 2020 to November 30, 2021. They were followed up to the discharge, death or transfer to other hospitals. We created and analyzed a database from electronic health records, including demographic, clinical and paraclinical data.

RESULTS AND CONCLUSION: From 816 patients, 284 (34,80%) of them presented liver injury (an abnormal value of alanine-transaminase, aspartate-transaminase, alkaline-phosphatase, gamma-glutamyl transpeptidase or total bilirubin more than 2 times over the upper limit on admission). Hepatic impairment at diagnosis was associated with pre-existing metabolic syndrome, pulmonary afflictions or hepatitis B virus infection.
A higher proportion of subjects included in the liver injury group needed ICU admission comparing to the other group (44.84% versus 37.80%, p<0.05). Furthermore, the requirement of mechanical ventilation was more increased in the first group (44.84%) whereas in the second one only 38.24% of the patients needed a modality of mechanical ventilation (p=0.05).
A logistic regression analysis after the adjustment for sex, age and comorbidities confirm that liver injury on admission is the secondly most important risk factor after the age, for the mortality.

THE RESULTS of this study are consistent with the hypothesis that hepatic function impairment in patients with COVID-19 represents a negative prognostic factor concerning ICU admission, the requirement of mechanical ventilation and mortality.

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SOMATOFORM DISORDERS OF THE PATIENT WITH COMPLEX PATHOLOGY.EVALUATING SELF-ESTEEM OF THE CHRONIC ALCOHOL CONSUMER:CAUSE OR RESULT? THE RELATION BETWEEN SELF-ESTEEM AND COPING MECHANISMS

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KEYWORDS: alcohol, self-esteem, adaptability

INTRODUCTION: Chronic alcohol users will suffer from various health disorders, all throughout their lives, depending on their genetic background, but also on their living environment. Does a low self-esteem bring about this kind of behaviour or the other way around?
And is the alcohol user's self-esteem low or not?
We have embarked upon a study focused on evaluating the alcohol user's self-esteem, correlating the data we have obtained, with the evaluation of the mechanisms of adaptability to the environment.

The main hypotheses we have taken into consideration were:
1. Low/medium self-esteem or self-depreciation are factors that could bring forth chronic substance/alcohol use.
2. Low/medium self-esteem or self-depreciation can be positively correlated with a low level of adaptability to the environment.

MATERIAL USED:
1. Rosenberg self-esteem scale (SS)
2. Adaptability questionnaire www.researchcentral.ro
For the current study 50 people have been interviewed, 36 males, and 14 females. Their ages range between 30 and 60 years old. The people suffering from hepatic encephalopathy or psychiatric disorders were excluded from the study. The study took place from 2021 to 2022, within the County Emergency Hospital St. Andrew, Galati.
Out of the 50 people who had joined the study, 43 scored between 27 and 34 in the Rosenberg self-esteem scale, while the other 7 scored between 35 and 39 points.
In the adaptability questionnaire, 35 of the subjects got the minimum score, while 15 people got a medium score.

CONCLUSIONS: There is a positive correlation between the individuals' low self-esteem and their adaptability to the social environment. It hasn't yet been decided if low self-esteem is truly a cause of substance abuse or a consequence of it.
Early psychiatric and psychological intervention is needed, in order to diminish the chronic use of alcohol and to enhance the level of the individuals' self-esteem and their ability to adapt to the environment.

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INTESTINAL LIPOMATOSIS IN A PATIENT WITH COLONIC PSEUDOPOLYPS AND QUIESCENT ULCERATIVE COLITIS– A CASE REPORT

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INTRODUCTION - Inflammatory polyposis is a benign condition usually associated with inflammatory bowel disease (IBD). Intestinal lipomatosis can also arise in patients with IBD. However, very few cases describe this association of diseases.

CASE REPORT: A 38-years old female was admitted for severe abdominal pain and bloody diarrhea (more than 10 stools/day) during the last week. Two months before she underwent an appendectomy after presenting with similar symptoms in another unit. The initial preoperative CT scan also revealed intestinal lipomatosis. The histopathological diagnosis was of appendicular leiomioma.
In 2008 she was treated for hemorrhoidal thrombosis and rectal prolapse. A colonoscopy was recommended afterwards, which revealed multiple pseudopolyps in the rectum and left colon. A formal diagnosis of chronic colitis was made based on histopathology (erosions, inflammatory infiltrate). She was treated with 5ASA thereafter with sustained clinical and endoscopical remission.
At the present admission the patient had distended abdomen with tenderness in the right quadrant and was hemodinamically stable. Initial laboratory results revealed leukocytosis (14 700/ul) and inflammatory syndrome with high CRP (168 mg/l). Emergency CT imaging showed submucosal lipomas complicated with colo-colonic intussusception starting from cecal pediculated formations. The patient underwent emergency surgery. A right hemicolectomy with terminal ileostoma and excision of sigmoid mesocolonic lipomas was performed with good immediate outcome. Intestinal continuity was re-established 6 months after. The final pathological diagnosis was of submucosal colonic lipomatosis and peritoneal lipomatosis.

CONCLUSION: We present a case of abdominal lipomatosis complicated with intussusception and intestinal occlusion in a patient with quiecent ulcerative colitis and inflammatory pseudopolyps. However, after reviewing the resection specimen, the pseudopolypoid lesions were attributed to proliferative lipomas in the submucosa.

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Endoscopy

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ENDOSCOPIC VACUUM-ASSISTED CLOSURE (E-VAC) ESOPHAGEAL PERFORATION TREATMENT

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KEYWORDS: E-VAC, esophageal perforation; mediastinitis

INTRODUCTION: Esophageal perforations are considered to be life-threatening conditions due to the potential development of mediastinitis and consecutive sepsis. Vacuum-assisted closure (VAC) techniques, a well-established treatment method for superficial infected wounds, are based on a negative pressure applied to the wound via a vacuum-sealed sponge. Endoluminal VAC (E-VAC) therapy is a novel method to close the esophageal perforation, and experience regarding esophageal applications is limited.

CASE REPORT: We present the case of a 73 years old male patient admitted in the surgery department with esophageal perforation after an endoscopic dilatation for a esophageal stenosis. The toraco-abdominal computer tomography with intravenous contrast confirmed the esophageal perforation, acute mediastinitis and bilateral pleural effusion. Using a modified double-lumen naso-gastric probe adapted to the negative pressure unit and using the same principle as in the negative pressure treatment of soft tissue wounds we have achieved positive results with successful cure of esophageal perforation. An open-pore polyurethane foam drainage tube is inserted into the cavity of the leakage or directly into the lumen (intraluminal) under direct endoscopic view based on the size of the leakage. Subsequently, a continuous therapeutic vacuum of 100–125 mmHg was produced with an electronic pump through the diverted drainage tube. The drainage tube was endoscopically changed every 7 days. The negative pressure that is built up by the pump was then transmitted evenly to the tissue through the foam. As a result of the negative pressure, the wound cavity (intracavitary) was cleaned mechanically from microorganisms and the interstitial edema is reduced. The patient had a full recovery after 29 days of hospitalization with a positive check-up at one and two months after leaving our clinic.

CONCLUSIONS: Esophageal defects and mediastinal abscesses can be treated with E-VAC therapy where endoscopic stenting may not be possible.

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CAPSULE ENDOSCOPY IN CROHN'S DISEASE PATIENTS – A FRIENDLY DETECTIVE

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KEYWORDS: Crohn's Disease, Capsule endoscopy, jejunal involvement

INTRODUCTION: Crohn's disease (CD) is a chronic, inflammatory bowel disease that can affect any segment of the digestive tract. The capsule endoscopy (VCE) is a non-invasive method, that plays an important role in both diagnosing and managing patients with CD, especially if there is affected only the small bowell mucosa.

METHODS: A retrospective study was done, including patients with active CD, from University Emergency Hospital of Bucharest, between 2010 and 2021.
Patients had a hydric diet the day before the procedure and PEG 2l before and 1l, 1 hour after ingestion of VCE, to optimize the visualization of the last portion of the small bowell. The SB2, SB3 and COL2 were used, and the data was processed using Rapid 7+8.
To reduce the risk of VCE retention, all patients were investigated by enteroCT, prior to VCE investigation.

RESULTS: We included 62 patients with CD who were evaluated using the VCE. They were between 23 and 68 years old, 67% being men.
The type, site and number of lesions suggestive of CD, identified by VCE, was assessed. 8(12,9%) patients had insignificant, 11(17,74%) possible significant and most patients, had significant lesions (69,36% vs 17,74% vs 12,90%,p<0,001).
According to the Montreal classification, most patients, had ileal disease, being followed by those with jejunal disease (48,39%vs 0 vs 19,35%vs 32,26%,p<0.05). In L4 group, the escalation of the therapy was performed in19 out of 20 patients, secondary to the VCE, in most of them the anti TNF therapy being initiated.
In two patients, jejunal stenosis was detected and capsule retention occurred, requiring surgery.

CONCLUSION: In the patients with CD, jejunal involvement is associated with an increased risk of complications. Because of that, the capsule endoscopy, which is the most sensitive method for diagnosing jejunal lesions, inaccessible by conventional endoscopy, represents a friendly detective which allows the assessment of subtle lesions at this level, proving its value in classifying the disease and influencing the prognosis by approaching to an aggressive therapeutic strategy in this group, secondary to VCE investigation.

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A FORTUNATE CASE OF EARLY DETECTION OF AN GASTRIC ADENOCARCINOMA RESECTED SHORTLY AFTER MALIGNANT TRANSFORMATION

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KEYWORDS: gastric adenocarcinoma, endoscopic submucosal dissection

INTRODUCTION: Gastric cancer remains one of the most common types of cancer. Despite insufficient evidence to justify mass screening, early detection of eso-gastric cancer allows curative resection using endoscopic interventions such as EMR (endoscopic mucosal resection) or ESD (endoscopic submucosal dissection). These techniques have replaced the surgical approach in treating early malignant lesions that are limited to the mucosa and submucosa.

MATERIALS AND METHOD: We present the case of a 70-year-old patient with Helicobacter pylori-associated gastritis and recent eradication therapy who presented for endoscopic reassessment. During the procedure a protruding juxtacardial area of 10/4 mm with irregular margins was detected. Histopathological examination revealed gastric adenoma with high-grade focal dysplasia. Due to untimely follow-up, 7 months later, the lesion was found to have progressed to a 20 mm sessile protruding mass extending to the fornix. The histopathological result showed G1 tubular gastric adenocarcinoma (ADK) and the patient was referred to undergo ESD in accordance with standard criteria for endoscopic resection.

RESULTS AND CONCLUSION: We performed endoscopic submucosal dissection with "en bloc" resection of the tumour. The final histopathological result certifies gastric tubular ADK G1, pT1a with free margins. The 4-month endoscopy follow-up revealed a slightly retractable scar area with no pathological features. Safety biopsies were taken proving that the mucosa was clear of malignant tissue.
Our case raises awareness about the importance of early stage histopathological detection of the lesions before malignant transformation. As aforementioned, this allowed the excision of the lesion using minimally invasive endoscopic procedures such as ESD. This method has a considerably lower mortality rate than a total gastrectomy. Compared to EMR, despite a higher risk of ulceration, ESD has the advantage of achieving greater "en bloc" resectability with a low chance of recurrence, both having a similar risk of bleeding.

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INTRADUCTAL RADIO-FREQUENCY ABLATION BEFORE BILIARY DRAINAGE IN INOPERABLE EXTRAHEPATIC CHOLANGIOCARCINOMA: SINGLE CENTER FIRST EXPERIENCE

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KEYWORDS: cholangiocarcinoma, radio-frequency ablation

INTRODUCTION: Extrahepatic cholangiocarcinoma (eCCA) is a rare and aggressive group of hepatobiliary malignancies with dismal prognosis. While surgery remains the only curative treatment, most patients present with advanced disease precluding resection, palliative drainage and chemotherapy being the standard of care in these cases. Experience with intrahepatic tumors such as hepatocellular carcinoma has shown that radiofrequency ablation (RFA) is safe, efficient and results in a long-term survival benefit. We aim to evaluate the feasibility, safety and efficacy of RFA treatment coupled with complete biliary drainage, for inoperable eCCA. This report includes an initial case-series treated under an ongoing clinical protocol in our center.

MATERIALS AND METHODS: Patients with locally advanced, unresectable eCCA were evaluated for treatment. After clinical, biological and imaging work-up, a single experienced endoscopist performed ERCP with local therapy and drainage. After initial stricture evaluation, biopsies were collected and intraductal RFA treatment was performed using 25mm Habib probes (EndoHPB, EMcision) with 7W current delivered for 90s intervals, in a step-by-step fashion. Afterwards, complete biliary drainage was ensured by placing multiple plastic stents.

RESULTS AND CONCLUSIONS: Three patients were diagnosed with unresectable eCCA, due to vascular invasion or distant metastases. One patient had distal CCA, and two had perihilar CCAs. All patients underwent ERCP with intraductal RFA treatment of the entire stricture length, followed by biliary stenting. Two patients received multiple plastic stents and one received metal stents. One patient underwent a second session of RFA one month later, with subsequent plastic stenting. One patient developed mild acute cholangitis after the initial procedure, requiring broad-spectrum antibiotics and re-do ERCP with additional placing of a new plastic stent. All patients experienced mild abdominal pain, responsive to non-opioid treatment.
Our initial experience suggests that intraductal RFA is a feasible treatment for eCCA, but requires further studies to establish its safety and efficacy.

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ULTRASOUND GUIDED MICROWAVE ABLATION FOR HEPATOCELLULAR CARCINOMA – A SINGLE CENTER EXPERIENCE

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INTRODUCTION: Hepatocellular carcinoma (HCC) is currently the second leading cause of cancer related- death worldwide. Ultrasound-guided ablation is recommended in patients with early-stage HCC according to the Barcelona Clinic Liver Cancer (BCLC) classification, when surgery is not possible.

In recent years, microwave ablation (MWA) has become increasingly used as a minimally invasive technique with results similar to surgery in term of overall survival (OS) and recurrence free survival (RFS)

MATERIALS AND METHODS: We present a retrospective, observational and interventional study on a sample of 19 patients who underwent MWA for HCC with curative intent between 2018-2021 .

RESULTS: The average age was 66.4 years (50-86) including 4 women (21.1%) and 15 men (78.9%). Of these, 17 patients (89.5%) had liver cirrhosis of which 84.2% had a Child A score (n = 16) and 15.8% Child B (n = 3). The median follow up was 8.26 months.

According to the BCLC classification, stage 0 was registered in 5 patients (26.3%) and stage A in 14 patients (73.7%).

Restrictive mean of OS and PFS were 22 and 7.81 months respectively.

Multivariate analysis showed that age and MELD score are predictors of disease progression (OR=1.25, p = 0.03)(OR=1.6, p=0.05).

CONCLUSIONS: Microwave ablation is a safe method, and the data from our study on survival are comparable to those in the literature.

Independent predictors of disease progression were MELD score and age.

The results must be validated on a larger group and for a longer period of time

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MUCOSAL RESECTION FOR DIAGNOSIS AND TREATMENT OF EARLY GASTRIC CANCER: INITIAL EXPERIENCE OF A SINGLE OPERATOR

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KEYWORDS: early gastric cancer; endoscopy; endoscopic mucosal resection

INTRODUCTION: Endoscopic resection is indicated for diagnosis and, sometimes, as definitive treatment of early gastric cancer. Submucosal dissection is generally recommended but mucosal resection (EMR) can be successful in certain cases and is much more accessible. In this study we analyze a single operator's initial experience in treating early gastric lesions by EMR.

MATERIALS AND METHODS: This is a retrospective analysis

of techniques and results of initial cases of early gastric cancer resections performed by a single operator. Before resection high-grade dysplasia was confirmed by a single biopsy. The lesions were marked by coagulation points 2 mm outside their margins and en-bloc resection was attempted (with the exception of a jonctional lesion which developed on Barrett's esophagus). All patients were followed-up endoscopically with the first visit set at 3 months after resection.

RESULTS: Between 10.2019 and 3.2022 a single operator treated 6 patients (4 men, ages between 47-71 years) with 7 confirmed lesions of gastric dysplasia/ adenocarcinoma. The lesions had sizes between 0.9-7.5 cm and were resected by cap-assisted EMR (EMR-C: 4 cases), multiband mucosectomy (1 case of jonctional adenocarcinoma) or standard snare resection (2 cases). Histopathology confirmed R0 resection for 5/7 lesions, R1 for 2/7 lesions (high-grade dysplasia at the margins). At 3 months follow-up a single patient had remnant dysplasia (high-grade, 4 mm) which was resected by EMR-C. There were 2 intraprocedural bleedings successfully controlled via coagrasper, no late bleeding and no perforation. A patient with pT1bsm2 refused further surgery and has no sign of recurrence after 31 months.

CONCLUSIONS: For well selected gastric lesions mucosal resection is a safe technique for a non-experienced operator and has good technical and oncological results.

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MORE THAN ONE WAY TO SKIN A CAT: MANAGEMENT OF PERIPANCREATIC FLUID COLLECTIONS IN A TERTIARY REFERRAL CENTER

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KEYWORDS: pancreatic collections, endoscopic drainage

INTRODUCTION: Pancreatic and peripancreatic collections (PPC) are important causes of increased morbidity and mortality for patients with acute pancreatitis. Recently either transpapillary or trasmural endoscopic drainage has become a viable option to surgery. However there is still no agreement regarding the optimum method of endoscopic treatment, the decision being often influenced by the local expertise.

MATERIAL AND METHODS: We made a retrospective analysis of the PPC cases treated in our centre, in order to describe the types of minimally-invasive treatement performed and to assess the rates of technical and clinical succes.

RESULTS AND DISCUSSION: We introduced 23 patients with PPC reffered to Colentina Gastroenterology Department from January 2016 until May 2022. They presented with walled-off

pancreatic necrosis (9/23) and pancreatic pseudocysts (18/23) and complained of abdominal pain (20/23), gastric outlet obstruction (2/23) and intractable singultus (1/23). Their mean age was 55 ± 14.4 years old, and were predominantly males (18/23). We performed a total number of 49 endoscopic procedures (median 3, minimum 1 – maximum 6) as follows: endoscopic retrograde cholangiopancreatography-guided transpapillary drainage using plastic stents (10/45), endoscopic ultrasound-guided drainage with plastic stents (22/45), endoscopic ultrasound-guided drainage with metal stents (LAMS – lume-apposing metal stents) (3/45) and evaluation endoscopy at the end of the treatment (10/45). Technical succes was achieved in 73% (17/23), while clinical succes was achived in 81% (13/16) of patients. 4 patients (17%) were reffered to surgery (2) and to percutaneous drainage (2) after initial endoscopic ultrasound evaluation. There were also 9 (22%) periprocedural complications consisting of bleeding (2/45), infection of the collection (2/45) and stent migration (5/35) – solved mainly endoscopically with the exception of one bleeding patient that needed urgent surgery.

CONCLUSION: endoscopic drainage has proved to be safe and efficient for the majority of our
patients, with an increased rate of clinical succes and a good safety profile.

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ADVANTAGES OF EARLY DIAGNOSIS OF COLORECTAL CARCINOMA

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KEYWORDS: colonic adenocarcinoma, early detection

INTRODUCTION: Performing lower gastrointestinal endoscopies either for screening or for nonspecific symptoms facilitates early detection of colonic adenocarcinoma, with subsequent minimally invasive resection, rapid recovery and reduced costs.

METHODS: We report a case of a 57 year old patient presenting to our clinic in order to further investigate the etiology of a melenic stool that appeared a week before admission. It was described by the patient as dark coloured, but with normal consistency and not sticky. An upper gastrointestinal endoscopy was performed in another clinic and was claimed to be normal (no medical records were presented). The patient also suffers from ankylosing spondylitis, type 2 diabetes mellitus and hypertension.

RESULTS: We performed a colonoscopy that revealed a semipediculated, ulcerated polyp of approximately 20 mm, localised in the descending colon (70 cm from the anus), that could be described as NICE III, KUDO Vi. There was high suspicion of submucousal adenocarcinoma but nonetheless, resection

using a hot snare was attempted, thus succeding in removing the lesion. Afterwards local hemostasis was performed and the remaining scar was tattoed in two different spots. The thorax-abdomen-pelvic CT scan revealed a number of small subdiaphragmatic lymph nodes, liver steatosis and prostatic hyperplasia but no other tumors. Tumor biopsy indicated intramucosal adenocarcinoma G1, pTis, RO, evolved from a high grade tubular adenoma. Tumor markers, CEA and CA 19-9 were within normal range.

CONCLUSIONS: Early detection of colonic adenocarcinoma facilitates complete excision, without further need for invasive surgery.

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CAPSULE ENDOSCOPY IN CROHN'S DISEASE PATIENTS – A FRIENDLY DETECTIVE

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KEYWORDS: Crohn's Disease, Capsule endoscopy, jejunal involvement

INTRODUCTION: Crohn's disease is a chronic, inflammatory bowel disease that can affect any segment of the digestive tract. The purpose of the treatment is no longer represented only by the control of the symptoms but by the mucosal healing and even transmural healing.
The capsule endoscopy (VCE) is a non-invasive method,that plays an important role in both diagnosing and managing patients with Crohn's disease, especially if there is affected only the small bowell mucosa.

METHODS: A retrospective study was conducted between 2010 and 2021, at the University Emergency Hospital of Bucharest. Eligible patients were known patients with Crohn's disease, with clinical and biochemical criteria for active inflammatory disease (inflammatory syndrome, fecal calprotectin> 200microg / g) and CDAI score> 150.
Patients followed a hydric diet for the last 24 hours and the preparation was performed with PEG 2l anterior examination and PEG 1l 1 hour after ingestion of the endoscopic capsule, to optimize the visualization of the last portion of the small bowell. The Pillcam SB2 and SB3 platforms as well as the Pillcam COLON 2 were used, and the data obtained were processed using Soft Rapid 7 + 8.
To reduce the risk of endoscopic capsule retention, all patients were investigated by entero CT, prior to endoscopic videocapsule investigation.

RESULTS: We included 62 known patients with Crohn's disease who were evaluated using the endoscopic capsule. They were between 23 and 68 years old, 67% being men.

There was made an assessment of the type, localization and number of lesions suggestive of Crohn's disease, that were identified by capsule endoscopy.

Aphtoide erosions, ulcerations and strictures were considered significant lesions and denudation, edema and erythema were considered potentially significant lesions. In term of severity, 8(12,9%) patients had insignificant lesions, 11 (17,74%) possible significant lesions and most patients, had significant lesions (69,36 % vs 11, 74% vs 12,90%, p<0,001).

Each patient was classified according to the Montreal classification considering: age at diagnosis(A1: < 17 years, A2: 17- 40 years, A3: > 40 years), localisation of lesions (L1: ileal, L2: colonic, L3: ileo-colonic, L4: upper digestive tract, p: perianal) and pattern (B1: non-stricturing, nonpenetrating, B2: stricturing, B3: penetrating). In our group, most patients, statistically significant, were with ileal disease, being followed by those with jejunal disease (48,39 % vs 0 vs 19,35% vs 32,26 %, p<0.05). The distribution of patients, according to the therapeutic attitude after the VCE examination and localisation of the lesions was also analyzed. In the L4 group and also in non L4 group (L1+L2+L3), most of the patients needed to optimize the treatment through a step up approach (48,38% from non L4 group vs 30,64 % from L4 group), totalizing 79.02% from all paticipants to the study. In patients with jejunal disease, the escalation of the therapy was performed in 19 out of 20 patients, secondary to the VCE investigation, in most of them the anti TNF therapy being initiated.

In two patients, despite being evaluated with entero-tomography prior to endoscopic videocapsule investigation, stenosis of the jejunum was detected and capsule retention occurred, requiring subsequent surgical treatment.

CONCLUSION: In the patients with Crohn's disease, jejunal involvement is associated with an increased risk of complications and hospitalizations, influencing the quality of life. Because of that, the capsule endoscopy, which is the most sensitive method for diagnosing jejunal lesions, inaccessible by conventional endoscopy, represents a friendly detective which allows the assessment of subtle lesions at this level, thus proving its effectiveness in classifying the disease and influencing the prognosis by approaching to a more aggressive therapeutic options in this group, secondary to capsule endoscopy investigation.

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DETECTION OF COLONIC ADENOMAS USING SFI-SPECTRAL FOCUSED IMAGING IN AN OPPORTUNISTIC SETTING

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AIM: Colorectal cancer remains a major health issue and colonoscopy is the main method proved to decrease incidence and mortality. Different quality measure items for screening colonoscopy were introduced over time. A higher adenoma detection rate (ADR) has been shown to be related to a lower incidence and mortality of colorectal cancer. We used spectral focused imaging SFI for assessing the detection and miss of various featured adenomas as compared with white light imaging (WLI). The adenomas were characterized using the VALID classification that we firstly introduced in 2019.

METHODS: We conducted a prospective, randomized, tandem trial in opportunistic screening patients using the 4 LED 550 HD series endoscopy system form Sonoscape (Shenzen,China) The participants were randomly assigned to two groups: first observation by SFI, then second observation by WLI (group A); or both observations by WLI (B group). Examinations were conducted by 3 junior and 3 senior endoscopists. The primary outcome was to compare the ADR during the first observation. Secondary outcomes included evaluation of adenoma miss rate (AMR) and visibility score.

RESULTS: A total of eighty patients were randomized, 70 of whom were included in the final analysis. The ADR was 71% and 65.2% in the SFI and WLI groups, respectively, with no significant statistical difference.

However, SFI improved the average ADR in low-detectors compared to high-detectors (73.0% vs 51%; P < 0.001). The adenoma miss rate AMR was 20.6% in the SFI group, which was significantly lower than that in the WLI group (32%) (P < 0.001). The AMR in the SFI group was significantly lower, especially for diminutive adenomas less than 10 mm in diameter (24% vs 35.1%; P < 0.001) and non-polypoid lesions (26% vs 38%; P < 0.001) as compared to the WLI group.

CONCLUSION: Although both methods provided a similar ADR, SFI had a lower AMR than WLI. Further studies are necessary to validate these findings especially in real life screening colonoscopy conditions.

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DIAGNOSTIC RESULTS COMPARISON OF ENDOSCOPIC ULTRASOUND FINE NEEDLE BIOPSY VERSUS FINE NEEDLE ASPIRATION IN FOCAL LIVER LESIONS

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INTRODUCTION: Accurate diagnosis in focal liver lesions is related to the possibility of performing histology diagnosis and immunohistochemistry. The endoscopic ultrasound- fine needle biopsy(EUS-FNB) or fine needle aspiration(EUS-FNA) represents the way of their sampling when percutaneous biopsy is limited by ascites or poorly accessible lesions or when concomitant pancreatic or gastric lesions should be approached by endoscopic ultrasound (EUS). However, the superiority of different needles of same size has not been established.

AIM: to compare the diagnostic accuracy and adequacy for histology of core obtained with EUS-FNB needle compared to FNA needle in focal liver lesions.

MATERIAL AND METHOD: In this prospective one center study(January 2019 to Mars 2021) were included patients with left lobe hepatic focal lesions with contraindication for percutaneous liver biopsy or need for EUS for concomitant lesions. Each patient had a sequence of EUS-guided tissue acquisition with a sequence of one pass of 22G FNB (Franseen) needle followed by one pass of 22G EUS-FNA. Specimens were then reviewed separately by pathologist to determine the diagnostic and the adequacy for histologic diagnosis. The final diagnosis was based on EUS-FNB or EUS-FNA results or suggestive imaging of the primary lesion in case of negative biopsies during follow-up.

RESULTS: Sixty biopsies (30 each with 22G FNB and 22G FNA needle) were obtained. Tissue adequacy and cellularity was greater for FNB samples (90% vs 63.3%,p=0.014 and 53 vs 39 cells/mm3, p=0.0039). After processing, core tissue aggregates length was higher for the FNB versus FNA (12.1 vs 7.9 mm, p= 0.0085). EUS-FNB accuracy was 100% while EUS-FNA was 86.7%(p=0.038). No post-procedure complications were noted.

CONCLUSION: The 22G EUS-FNB needle proved as safe and better method of tissue acquisition diagnostic accuracy compared to 22G EUS-FNA in focal liver lesions.

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DIFFERENT TYPES OF DRAINAGES FOR WALLED-OFF PANCREATIC NECROSIS – A CASE REPORT

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KEYWORDS: walled-off pancreatic necrosis; lumen apposing metal stent; percutaneous drainage

INTRODUCTION: Walled-off pancreatic necrosis (WOPN) is an encapsulated collection of pancreatic necrosis that appears at least four weeks after an episode of acute pancreatitis. Most of the times it presents spontaneous resolution, but sometimes drainage can be necessary.

METHODS: A 58-year-old patient presented to the emergency room with intense abdominal pain and emesis started 3 days before. Biological tests revealed hyperlipasemia, severe inflammatory syndrome, and severe hypercholesterolemia with hypertriglyceridemia (TG=7160 mg/dl), while abdominal computed tomography (CT) revealed findings compatible with Balthazar E acute pancreatitis. Treatment with glucose and unfractionated heparin was started, with normalization of triglycerides, remission of the inflammatory syndrome and of the symptoms. Two months later a CT scan was performed and showed that the patient developed a 12/20 cm WOPN, that stretched from the pancreatic head to the left abdominal flank.
Given the large dimension of the WOPN, the decision to perform endoscopic ultrasound-guided drainage using lumen apposing metal stent (LAMS) was made. One week later endoscopic hydrogen peroxide irrigation was made inside the WOPN to facilitate the dissolution of solid necrotic detritus. The evolution was favorable with removal of LAMS 4 weeks later and replacement by 2 pigtail stents.
One week later, the patient started to develop fever and a rise of the CRP was observed. A new CT scan showed the persistence of a collection in the inferior part of the left flank with signs of infection. Given the position of this collection, the decision to realize a percutaneous drainage was taken and daily lavage with betadine and serum solution was realized.
Results: The evolution of the patient was favorable with remission of the inflammatory syndrome and of the collection.

CONCLUSION: Large pancreatic walled-off necrosis can prove to be a real challenge, that needs a multidisciplinary approach and complementary treatments.

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DIGITAL CHROMOENDOSCOPY USING SPECTRAL FOCUS IMAGING-SFI IN ASSESSMENT OF MUCOSAL HEALING AND RISK OF RELAPSE IN ULCERATIVE COLITIS

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BACKGROUND AND AIM: The Mayo Endoscopic Subscore (MES) is the most used score to assess endoscopic mucosal healing in patients with ulcerative colitis. Although mucosal healing is defined by MES 0, relapse of ulcerative colitis is often observed hence the discussion of regarding at histologic healing as a target.
Over a 6-month period, this study investigated the efficacy of SFI (spectral focused imaging) in predicting the long-term prognosis and risk of relapse of ulcerative colitis patients diagnosed with MES 0.

METHODS: Overall, 20 ulcerative colitis patients in remission with biologic treatment, diagnosed with MES 0 using white light endoscopy, were retrospectively analyzed after their colonoscopy(performed 6-12 months before) for prediction of relapse.
Using the 4 LED HD-550 endoscopy system (Sonoscape Corp, China) endoscopic colonic images were assessed with spectral focus imaging and the colitis endoscopic index of severity. Endoscopic SFI images were separated into three subgroups (A, no redness; B, redness with visible vessels; and C, redness without visible vessels). The Geboes score was used to evaluate histology; active mucosa was defined as GS > 2B.1.

RESULTS: Spectral Focused imaging permitted to classify patients with MES 0, in two different classes. The group A with no redness on initial evaluation did not relapse, and the non-relapse rate was significantly higher (P = 0.016) than that in the other 2 groups. No difference in relapse rates was observed between patients with a colitis endoscopic index of severity of 0 and 1 (P = 0.622). There was no statistical difference between the composition of SFI-A group and the relapse rate between active and inactive histologic changes diagnosed by Geboes score, a finding which is rather challenging but seen also in other studies.

CONCLUSIONS: This methodology can be used to evaluate mucosal healing and predict long-term outcomes in ulcerative colitis patients and can be easily employed; future studies are necessary to automate this process and to analyze the biomarkers correlations.

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POTENTIAL OF THE GLASGOW-BLATCHFORD SCORE FOR EVOLUTIONARY AND PROGNOSTIC PREDICTION IN PATIENTS WITH ACUTE UPPER DIGESTIVE BLEEDING

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KEYWORDS: Glasgow-Blatchford score, endoscopic hemostasis, rebleeding

INTRODUCTION: The pre-endoscopic use of the Glasgow-Blatchford score (GBS) in patients with upper gastrointestinal bleeding (UGIB) is considered to have a high rate of practical confirmation of the predictive potential of the need for endoscopic therapy, blood transfusion and surgery.

THE AIM: To evaluate the capacity for evolutionary and prognostic prediction of pre-endoscopically calculated GBS in patients with UGIB and the relationship between GBS and endoscopic findings.

MATERIAL AND METHOD: The study included 176 patients (110 male, 62.5% and 66 female, 37.5% age limits 23-84 years), referred urgently for an acute episode of UGIB. Demographic data, disease history, laboratory and endoscopic data were taken from medical records. Rebleeding, endoscopic hemostasis, surgery, transfusion, hospitalization and death were recorded.

RESULTS: In the patients included in the study in the pre-endoscopic management stage, the mean value of GBS was 13.7. The endoscopically objectified bleeding sources were non-variceal 71.02% and variceal (28.97%). 64 patients (36.36%) with a mean GBS of 13.75 received endoscopic hemostasis. Rebleeding in 44 patients (25%) was associated with a mean GBS of 15.95. 9 patients (5.1%) with a mean GBS of 16.56 required surgery, and 126 patients (71.59%) with a mean GBS of 15.3 received a blood transfusion. The average hospital stay was 8.39 days, and GBS over 13 was reported in hospitalized patients over 10 days. Deaths were recorded in 11 patients (6.25%) with a mean GBS of 18.5.

CONCLUSIONS: The data from our study indicate that GBS used in the pre-endoscopic management stage in patients with UGIB, due to the high correlation of the calculated values with the evolution and clinical prognosis, can be considered a valid prediction tool for assessing the degree of risk for rebleeding, necessary for transfusion, surgery and therapeutic management orientation.

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FNA NEEDLES – ARE THEY CAPABLE OF ACQUIRING TISSUE FRAGMENTS?

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INTRODUCTION: Endoscopic ultrasonography with fine needle aspiration (EUS FNA) has become an increasingly important tool to achieve a definitive diagnosis of solid pancreatic tumors. One major issue of FNA is the inability of acquiring enough material for cytology using the small diameter needles or the difficulty of reaching tumors located in the uncinate process or the head of the pancreas.

MATERIALS AND METHODS: The aim of this study was to demonstrate the ability to obtain fragments of tissue with FNA needles that can be processed into paraffin blocks, cut, then stained and later assessed by the histopathologist. For the unity of the study, we selected the last 100 patients who underwent EUS FNA for solid pancreatic tumors in which we used only middle-sized needles of 22G.

RESULTS: The average number of passages with the 22G needle through the lesion was of 2.4 times and we obtained an average of 8.9 smears per case. The total cases positive for pancreatic ductal adenocarcinoma (PDAC) or pancreatic neuroendocrine tumor (PNET) cytology were 93% (n= 93, PDAC 98% and PNET 2%). We acquired visible tissue fragments which were assessed macroscopically by the endoscopist and by the on-site histopathologist, in 93% of cases (n= 93), as well. Therefore, the visible tissue samples were processed by the histopathologist into paraffin blocks, out of which 89.3% (n= 83) were positive for the PDAC/PNET diagnosis (p< 0.05).

CONCLUSIONS: We find the FNA a cost effective and capable technique in the hand of an experienced endoscopist of acquiring fragments of tissue that later, can be processed into cell block for histology assessment.

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BENEFIT OF PREOPERATIVE UPPER GASTROINTESTINAL ENDOSCOPY IN PATIENTS WITH UNCOMPLICATED CHOLELITHIASIS

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KEYWORDS: gastrointestinal endoscopy, cholelithiasis

INTRODUCTION: Uncomplicated cholelithiasis is an indication for surgery when it is symptomatic. However, it is difficult in some cases to link the symptoms to the biliary origin without upper digestive endoscopic exploration. The aim of our study is to determine the interest of upper gastrointestinal (UGI) endoscopy in the preoperative assessment in these patients.

PATIENTS AND METHODS: This is a retrospective study of all patients with vesicular lithiasis who had UGI endoscopy between January 2021 and April 2022. The different demographic, clinical, endoscopic and histological aspects were noted.

RESULTS: Among 209 patients with cholelithiasis, 63 patients underwent UGI endoscopy 49 women (77.7%) and 14 men (22.2%) with an average age of 54.2 years (between 28 and 86 years). All patients had atypical epigastric pain. The other associated symptoms were: heartburn and regurgitation (24 patients, 38.09%), pain in the right hypochondrium (9 patients, 14.28%), bilious vomiting (7 patients, 11.11%) and dyspepsia (4 patients, 6.34%). UGI endoscopy was without abnormalities in 23 patients (36.5%). The various endoscopic anomalies found in the other patients were: congestive gastropathy (n=19, 47.5%), congestive gastro-bulbitis (n=8, 20%), nodular gastritis (n=5, 12.5%), active ulcer of the bulb (n=4, 10%), erosive gastropathy (n=2, 5%), petechial gastropathy, (n=1, 2.5%), erosive bulbitis (n=1, 2.5%). Antrum-fundal biopsies revealed Helicobacter pylori (HP) active gastritis in 18 cases (45%). Atrophy fundus was present in 4 patients (10%). Six patients had intestinal metaplasia (15%).

CONCLUSION: In our study, 63.49% of patients with cholelithiasis had endoscopic abnormalities and 28.57% had HP gastritis. In the latter, it seems reasonable to take them into account and treat them before considering cholecystectomy.

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WHEN POLYPECTOMY LEAVES 'TRACES'

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KEYWORDS: Post-polypectomy syndrome, intestinal perforation

INTRODUCTION: Post-polypectomy electrocoagulation syndrome, also known as Post-polypectomy syndrome, typically presents abdominal pain , fever, leukocytosis and inflammation of the peritoneum without evidence of colonic perforation, symptoms appearing within 5 hours to 7 days after polypectomy electrocoagulation procedure, this leading to injury of the colonic mucosa and the underlying muscularis layer, which causes transmural burn. The risk factors are large non-pediculated polyps, those situated in the right colon and caecum, where the colonic wall is thinner.

MATERIALS AND METHODS: Case presentation: A 69-year-old pacient with past medical history of arterial hypertension, presented to Emergency room with complains of severe abdominal pain in right lower quadrant and fever (102 0 F), 9 hours after a colonoscopic electrocoagulation polypectomy of a cecal tubulovillous polyp of about 2 cm, located at the caecum level. The clinical examination revealed a pacient with altered

general condition, vital signs within normal limits, preserved peristalsis, mobile abdomen with breathing movements, abdominal pain with palpation and spontaneous in the right lower quadrant. Laboratory tests revealed a significant white cell count (21x109), increased C-reactive protein (16 mg/ dl3), the rest of the biological parameters being within normal limits. A plain abdominal radiography was read as normal, with no signs of pneumoperitoneum or hidroaeric levels and a CT scan of the abdomen and pelvis with contrast revealed significant inflammatory changes within the mesenteric fat surrounding the cecum without signs of perforation. The symptomatology correlated with biological and imastic data led to the diagnosis of post-polypectomy syndrome and the pacient was admitted to the Gastroenterology Department and he was treated conservatively with piperacillin-tazobactam 4 g/500 mg every 8 hours, intravenous fluids and analgesics for 5 days with complete resolution of his symptoms and significant improvement of biological parameters (white cells 9,8x109, CRP 0,6mg/dl3).

CONCLUSION: In patients presenting with abdominal pain, fever, and/or tachycardia within 5 hours to 7 days of colonoscopy with polypectomy, physicians should consider both perforation and post-polypectomy syndrome. The recognition of this syndrome is important and can thus avoid exploratory laparotomies, in most cases drug management being sufficient.

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PREMATURE CHOLANGITIS SECONDARY TO PLASTIC STENT PLACEMENT- STILL A CHALLENGE. AN INTERIM ANALYSIS OF THE TEMPEST STUDY

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KEYWORDS: endoscopic retrograde cholangiopancreatography; cholangitis; biliary stent

INTRODUCTION: Plastic stenting via endoscopic retrograde cholangiopancreatography (ERCP) plays a keyrole in the management of benign and malignant biliary diseases. However, stent placement carries a risk for adverse events such as stent occlusion and cholangitis. We aimed to identify procedure and patient-specific factors associated with early cholangitis after biliary plastic stenting.

MATERIAL AND METHODS: Consecutive patients in whom temporary plastic stenting was performed were enrolled in this ongoing, prospective, single-center, follow-up study. Clinical, biochemical, and ERCP-related data were recorded, and bile was extracted prior to stenting at the index procedure. Patients were followed by telephone interviews every month until stent exchange scheduled at 3 months when the initial stent was retrieved for analysis and a new sample of bile was obtained. The primary outcome analyzed was the development of early cholangitis after initial successful stenting.

RESULTS AND CONCLUSIONS: One hundred thirty-five patients (82 men, mean age 67 years) in whom 148 biliary plastic stents were placed at the index visit were included in this interim analysis. Average duration of follow-up was 54 days. Before the 3-month scheduled visit, 65 patients (48%) suffered a composite outcome (cholangitis, hospitalization or death). Cholangitis occured in 26 (19%) of patients after a median of 41 days from stenting. 36 patients died during follow-up, 8 of which probably due to stent-related cholangitis. Retrieved stent examination revealed no association between premature cholangitis and degree of stent occlusion, presence of bacterial colonies, positive bile cultures, or prior exposure to antibiotics. In this interim analysis, early cholangitis was not predicted by patient or procedure-related factors. Careful follow-up and adjusting the timing for stent replacement may help reduce the risk of stent clogging and potential fatal acute cholangitis.

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THE OVESCO CLIP – THE ULTIMATE LIGHT OF THE RECTAL FISTULAR TUNNEL

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KEYWORDS: afistula, OVESCO clip

INTRODUCTION: We present the case of a successfully cured iatrogenic rectal fistula after surgical resection of a rectal cancer with an OTSC clip in a 67 years old patient.

METHODS: The endoscopic treatment of the rectal fistula has been managed using a therapeutic dual-channel scope EVIS EXERA II from Olympus, series number GIF 2TH180 and an „over-the-scope clip" (OTSC) – OVESCO system.

RESULTS AND CONCLUSIONS: The patient underwent a rectoscopic evaluation which revelead the presence of an incompletely cured anastomosis at 5cm above the anal orifice. In a second time, an endoscopic intervention was established which involved the treatment of the 10/6mm rectal fistula with an OTSC clip. CO_2 was permanently used for insufflation and the vital signs of the patient were closely monitored during the procedure.
Initially, the margins of the fistula were coagulated with argon plasma coagulation (APC). The OVESCO clip was mounted at the tip of the end-viewing therapeutic scope Olympus. The thread connected between the cap and control wheel was inserted through the accessory channel. During the procedure, the bottom of the fistula was pulled up with the clip's anchore,

meanwhile the rectal mucosa was aspirated. The OVESCO clip was succesfully placed. The rectal fistula was closed and the proximal colon had a large lumena.

CONCLUSION: the endoscopic cure of digestive fistula by using an OTSC clip – OVESCO system is an alternative method of surgery, with a lower mortality rate especially in patients with multiple comorbid diseases.

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PROGNOSTIC IMPLICATION OF BLATCHFORD SCORE IN THE EVOLUTION OF VARICEAL UPPER GASTROINTESTINAL BLEEDING

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KEYWORDS: aVariceal upper gastrointestinal bleeding, Glasgow-Blatchford score.

INTRODUCTION: The Glasgow-Blatchford Score (GBS) is a risk assessment tool for upper gastrointestinal bleeding that accurately predicts the need for endoscopic therapy, transfusion, or death.
MATERIALS AND METHODS: The study was conducted over a period of one year at the Emergency County Clinical Hospital in Craiova, the patients being hospitalized in the Gastroenterology Clinic with variceal upper gastrointestinal hemorrhage. The Glasgow-Blatchford score was calculated in all 128 patients studied. Clinical and biological parameters such as: systolic blood pressure (BP), blood urea, heart rate ≥ 100 / min, hemoglobin, syncope, melena, liver or heart disease were used to calculate this score.

RESULTS: In the studied group the minimum value of the score was 2 and the maximum was 13, and the average value of GBS was 8.04 points.
A GBS greater than 9 was statistically significantly correlated (p <0.05) with: mortality, number of transfused blood units, and number of days in hospital in the intensive care unit. GBS was also correlated with the risk of bleeding but without statistical significance.

CONCLUSIONS: It was noted that most patients with variceal upper gastrointestinal bleeding had GBS over 9, ie patients with severe bleeding and high risk.

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MULTIDISCIPLINARY APPROACH TO BILIARY SENOSIS FOLLOWING LIVER TRANSPLANT - A CASE PRESENTATION

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KEYWORDS: biliary stenosis, liver transplant, drainage

INTRODUCTION: Biliary complications (stenosis, fistula, lithiasis) are a major cause of morbidity and mortality in liver transplant rcipients. Their incidence varies between 10 and 25%. Biliary stenosis can be addressed by retrograde endoscopic cholangiopancreatography (ERCP), external biliary drainage, or surgical intervention, going up to retransplantation.

MATERIAL AND METHOD: We analyzed the case of a patient who received liver transplant in our clinic in March 2015 and subsequently developed biliary anastomosis stenosis, which benefited from multimodal therapy: endoscopic, surgical and by interventional radiology.

RESULTS: Biliary complications occurred in 11 of the 52 patients transplanted in our center during 2014-2021. The 53-year-old patient that we studied was transplanted for liver cirrhosis of viral etiology, HBV and HDV, receiving a whole liver from a brain-dead donor. He was found to have biliary anastomosis stenosis 7 months after transplantation, by ultrasound and by cholangioMRI, without any arterial complication history. ERCP treatment was initially attempted, but was not possible due to the tight nature of the stenosis. Thus, in November 2015, he underwent repeated surgery and hepaticojejuno-anastomosis was achieved. The evolution was favourable until August 2021, when he was hospitalized for angiocholitis and was diagnosed with hepaticojejuno-anastomosis stenosis, with overlying gallstones. Two sessions of interventional radiology were performed: internalized external biliary drainage during the first one and, subsequently, balloon bilioplasty, with stones mobilization into the corresponding loop. The patient's outcome was favourable, with remission of angiocholitis and normalization of liver tests.

CONCLUSIONS: Biliary complications following liver transplant often require multidisciplinary (endoscopic, radiological and / or surgical) therapy in experienced centers, in order to prevent graft loss. Future efforts should be made to prevent their occurrence.

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SPECTRAL FOCUSED IMAGING IN DIAGNOSING INTESTINAL METAPLASIA AND H PYLORI INFECTION- A PILOT STUDY

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OBJECTIVE: Digital chromoendoscopy is widely available with the new generation of endoscopes; a novel image-enhanced endoscopy- spectral focused imaging SFI(Sonoscape corp, China) can be used to recognize differences in mucosal color. We investigated whether SFI could improve the diagnostic accuracy of gastritis and gastric intestinal metaplasia.

MATERIALS AND METHODS: Upper endoscopy videos from 100 patients were analyzed; endoscopy was performed using white light imaging (WLI) and SFI.
Images were assessed by two expert and two junior endoscopists which reviewed the videos for endoscopic diagnosis of atrophic gastritis, metaplastic gastritis, nodular gastritis and H. pylori infection. Tissue biopsies with histologic examination and with rapid urease tests for H. pylori infection status and intestinal metaplasia detection were performed according to Sydney classification.

RESULTS: Kappa values for the inter-observer variability among the four endoscopists were fair to moderate under WLI and fair to good under SFI; no difference were observed between the senior and junior endoscopists.
Sensitivity, specificity, positive predictive value and negative predictive value for diagnosing H. pylori infection using WLI were 29.4%, 91.3%, 83.4% and 54.%, respectively, while those for SFI were 58%, 92.2%, 88 % and 65 %, respectively. The accuracy and sensitivity of SFI for diagnosing H. pylori infection were significantly higher than those of WLI (p < .001 for both). SFI better diagnosed the extent of intestinal metaplasia but we fail to demonstrate a superiority in detection over WLI.

CONCLUSIONS: SFI has better diagnostic accuracy for H. pylori infection status than WLI.
Future studies are necessary for the evaluation of this method in detection of intestinal metaplasia and its extent.

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WET-SUCTION VERSUS SLOW-PULL TECHNIQUE FOR ENDOSCOPIC ULTRASOUND-GUIDED FINE-NEEDLE BIOPSY OF SOLID LESIONS: A MULTICENTER, RANDOMIZED, CROSS-OVER TRIAL

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INTRODUCTION: Limited data on EUS-FNB comparing wet-suction (WS) and slow-pull (SP) found no difference in cellularity scores and blood contamination based on technique utilized. We aimed to compare histological yield, sample quality, and diagnostic accuracy of EUS-FNB performed with WS versus SP technique.

MATERIAL AND METHODS: Consecutive patients with solid lesions ≥1cm who underwent EUS-FNB with a 22G fork-tip or Franseen needle were enrolled in a multicenter, randomized, single-blind, cross-over trial. Lesions were sampled with both WS and SP alternating the sampling techniques in a randomized fashion. Samples taken during 1st/3rd and 2nd/4th passes were placed in separate vials and processed as standard histology. The primary aim was the histologic yield, defined as rate of samples containing a tissue "core". Secondary endpoints were: sample quality in terms of tissue integrity and blood contamination measured using predefined scores; diagnostic accuracy measured

against the final diagnosis after resection surgery or a clinical follow-up of at least 6 months.

RESULTS: 210 patients (men 55.5%; mean age 65.9) with 146 pancreatic and 64 nonpancreatic lesions were analyzed. A tissue core was retrieved in 150 (71.4%) and 129 (61.3%) cases using the WS and the SP, respectively (p=0.03). Mean tissue integrity score was higher using the WS (2.6±0.6 vs 2.5±0.5, p=0.02). Blood contamination was higher using the WS (2.1±0.8 vs 2.4±0.5, p<0.001). Similar results were observed for nonpancreatic lesions. Differently, for pancreatic lesions tissue core rate and tissue integrity score were similar but with a higher blood contamination using the WS. Diagnostic accuracy was similar in the two groups, overall and in subgroups of pancreatic/ nonpancreatic lesions.

CONCLUSION: For pancreatic lesions, WS negatively impacts blood contamination of EUS-FNB samples without significantly influencing diagnostic accuracy. Differently, EUS-FNB of nonpancreatic lesions could be performed using WS, but the risk of higher blood contamination should be further evaluated.

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ZENKER'S PERORAL ENDOSCOPIC MYOTOMY (Z-POEM) FOR MANAGEMENT OF LARGE ZENKER'S DIVERTICULUM

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KEYWORDS: Zenker's diverticulum, diverticulotomy, Z-POEM

INTRODUCTION: Zenker's diverticulum (ZD) is a pulsion diverticulum between the oblique and transverse fibres of the inferior pharyngeal constrictor muscle. Dysphagia and regurgitation are the main symptoms. Endoscopic treatment is very well tolerated, associated with a short hospital stay and rare adverse events (AE). Z-POEM is a minimally invasive technique option with excellent results in the management of small to large ZD. It utilizes the third space to create a tunnel to facilitate complete visualization of the septum and hence cutting it entirely [1-4].

THE AIM of this paper is to present our experience on Z-POEM as a very useful and highly efficient treatment option of large ZD.

Methods/Methodology: This was a retrospective study including adult patients with large ZD, defined as >=4 cm, treated by Z-POEM technique in our private centre between 01/2021 and 02/2022. The procedures were performed under deep sedation with orotracheal intubation. The primary goal was to achieve clinical success. Secondary goals were technical success, rate of recurrence and AE.

RESULTS: 4 patients (male 75%, mean age 69±5yr) underwent Z-POEM for treatment of large ZD (mean size 48.7 mm). The technique was successfully performed in all cases. The mean procedure time was 32.5±7.5 minutes. Clinical follow-up was performed at 1 month remote and at 6 months. Clinical success was achieved in all patients. Endoscopic follow-up was performed at 6 months. In one case a residual septum was seen and mild symptoms were present. Intentional incision of the mucosal flap, following exposure and division of the septum was performed in this case. No adverse events intra or periprocedural were reported. Post procedure length of stay was 1 day.

CONCLUSIONS/DISCUSSIONS: Z-POEM is an excellent endoscopic treatment option even for the large ZD and even in elderly and comorbid patients.

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IRRITABLE BOWEL SYNDROME OR MICROSCOPIC COLITIS? A DIAGNOSTIC CHALLENGE

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KEYWORDS: microscopic colitis, irritable bowel syndrome, diagnostic

BACKGROUND: IBS (Irritable Bowel Syndrome) is one of the most frequently diagnosed GI disease with a prevalence of 4.1% in the general population. IBS is diagnosed using The Rome IV criteria: presence of recurrent abdominal pain, ≥ 1 day/week, for at least 3 months associated with: defecation and/or change in frequency/form of stool.
MC (Microscopic colitis) – collagenous/lymphocytic colitis is a cause of chronic, watery, non-bloody diarrhea. It is a real challenge to diagnose MC in patients with IBS. Mutiple colic biopsies and histological exam are essential for diagnosis.

MATERIALS AND METHODS: We performed a retrospective longitudinal study on 89 IBS patients for a period of 4 years. The patients included were patients diagnosed with IBS-Diarrhea using the Rome IV criteria. Total colonoscopy was performed on these patients, multiple biopsies were taken and calprotectin levels were measured. The main aim of the study was to determine the prevalence of microscopic colitis in patients initially diagnosed with IBS, as well as to correlate fecal calprotectin levels with microscopic inflammation in MC.

RESULTS AND CONCLUSIONS: Out of a total of 89 IBS-D patients, 58 patients (65,2%) had no microscopic lesions, 12 patients (13,5%) had diverticular disease, 9 patients (10,1%) had unspecified chronic inflammation of the colon mucosa and 10 patients (11,2%) were diagnosed with microscopic colitis.
The calprotectin levels ranged from 86 μg/g to 213 μg/g. Of a total of 10 patients diagnosed with MC, 7 (70%) of them had calprotectin levels >100 μg/g and 3 (30%) had calprotectin levels <100 μg/g.
Microscopic colitis is less familiar to physicians and can be clinically misdiagnosed as IBS-D. A early and correct diagnosis is important for a accurate therapy.

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POOR OUTCOME FOR PATIENTS WITH ACUTE PANCREATITIS AND COVID19 INFECTION

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KEYWORDS: acute pancreatitis, COVID19

BACKGROUND: The novel coronavirus disease 2019 (COVID-19) has caused a global pandemic. The aim of the study was to assess the influence of COVID-19 infection on the outcome of acute pancreatitis (AP) and to identify risk factors for poor prognosis in these patients.

METHODS: We retrospectively reviewed medical charts of all patients with AP admitted in a tertiary referral center during the 2-year COVID outbreak. We assessed two control groups: patients with AP and COVID (COVID-AP) and non-COVID patients with AP (non-COVID-AP).

RESULTS: During the study period, 293 patients with AP were admitted, of whom 31 (10.5%) tested positive for COVID19 infection. Most of the patients were males (61.1%), mean age 53.4 ± 17.5 years and had alcoholic pancreatitis (50.1%). The majority of patients included in the study groups had at least one comorbidity 77.4% (COVID-AP), and 82.1% (non-COVID-AP) respectively. The multivariate Cox regression analysis demonstrated that alcoholic etiology (HR 1.345, 95% CI 1.037-1.744, p = 0.048) and COVID19 infection (HR 5.603, 95% CI 3.002-10.457, p <0.001) were independent risk factors for poor outcome. Patients with COVID-AP had more severe AP (p=0.021), required ICU admission (<0.001), and had longer hospitalization (<0.001) compared to non-COVID-AP. The in-hospital mortality of COVID-AP did not differ from non-COVID-AP (OR = 1.12, 95% CI = 0.45-245) but was higher than non-COVID-AP (OR = 2.46, 95% CI = 1.35-4.48).

CONCLUSIONS: In-hospital mortality of COVID-AP does not differ from non-COVID-AP but is higher than non-COVID-AP, and the higher severity of AP in COVID patients could partially contribute to this increment. Alcoholic etiology was also an independent risk factor for poor outcome for patients with AP.

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DIETARY CHANGES AND OUTCOMES IN CELIAC DISEASE

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KEYWORDS: celiac disease, gluten free diet

INTRODUCTION: The diagnosis of celiac disease (CD) is defined by the presence of symptoms, HLADQ2/DQ8, specific antibodies in serum, and duodenal histology. The aim of the present study is to assess the clinical, histological and serological response to gluten free diet (GFD) and also whether serum TG2-IgA antibody tests are useful biomarkers of VA in patients with CD treated with a GFD.

MATERIAL AND METHODS: The study included the cohort of patients age ≥18 years old, with biopsy proven CD. A total of 102 patients were enrolled, predominately female (n=81, 78.4%), median age at diagnosis 40 years.

RESULTS: At baseline, TG2-IgA levels were good predictors for identifying severe mucosal injury with a statistically significant difference when comparing patients with mild enteropathy versus those with VA, 35.10±61.53U vs 132.82±108.85U, p=0.002. Marsh 3c was observed in 34 (33.3%), subtotal VA (Marsh 3b) in 18 (17.6%) cases, partial VA (Marsh3a) in 27 (26.5%) cases, while the remaining had mild enteropathy (Marsh I, II) in 23 (22.5%) cases. Negative TG2 levels and different degrees of VA were documented in 12, 11.7% cases. At follow-up, the overall mean antibody titter was 28.14±60.19U, and serological response was documented in 79 (76.7%) cases.

CONCLUSIONS: Further prospective studies are needed to assess the outcome of intestinal histological recovery during GFD among patients with CD, and also finding the best non-invasive easy to use tools to assess adherence to the GFD and mucosal healing.

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GENES AND GENETICS IN CELIAC DISEASE

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KEYWORDS: celiac disease, HLA-DQ susceptibility, phenotype

INTRODUCTION: Celiac disease (CD) is considered to have a high heritability. Several studies have indicated that a strong HLA-DQ 'gene dose' effect exists with apparent implications on CD development and disease phenotype.

MATERIAL AND METHODS: A retrospective analysis of medical records was performed using the adult CD patient cohort attending a single tertiary referral centre. The study was carried out between January 2015- December 2019 and included 81 patients. Complete HLA-DQ typing alleles were isolated using genomic DNA extracted from EDTA-anticoagulant peripheral blood according to the manufacturer instructions.

RESULTS: HLA-DQA1*02/DQA1*05 was identified in 49.3%, DQA1*05/DQA1*05 in 21.3% of cases, and HLA-DQB1*02/DQB1*02 in 41.3% of cases. 8% of patients are DQ2.5 homozygous, 64% are DQ2.5 heterozygous, 24 cases DQ2.5 / DQ2.2, 24 (32%) have the DQ2 genotype 2.5/DQX, 2.67% inherited DQ2.5/DQ7, respectively 1 isolated HLA-DQ2.2 homozygous case. DQX/DQX were identified at 10 (13.33%). Low frequency was identified for HLA-DQ8. When assessing disease phenotype, the carriage of 2 HLA-DQB1*02 copies was associated with the presence of anaemia (P=0.024), but not with the presence of recurrent or chronic diarrhea, loss of weight, infertility or dyspepsia. No differences were detected between the presence of one vesus two DQB1*02 copies and the different Marsh classifications, P=0.725. However, the CD patients expressing 2 copies were more likely to have increased IgA-tTG and IgA AGA levels compared to those expressing only one copy.

CONCLUSIONS: The number of copies inherited by CD patients influences disease phenotype, but does not interfere with histological involvement. The lack of dosage effect on histological changes suggests that the presence of HLA-DQ heterodimers confers risk of disease, but there are additional factors that determine severity.

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ANTICOAGULANTS DECREASE MORTALITY AND MAJOR COMPLICATION RATES IN MODERATELY SEVERE AND SEVERE ACUTE PANCREATITIS - A SYSTEMATIC REVIEW AND META-ANALYSIS -

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KEYWORDS: acute pancreatitis; anticoagulants; low-molecular-weight-heparin

INTRODUCTION: Anticoagulant therapy, despite being frequently utilized in clinical practice for the management of acute pancreatitis (AP) relies on no formal consensus recommendation. We aimed to investigate the safety and efficacy of anticoagulation addition in the management of acute pancreatitis across all severity stages.

MATERIALS AND METHODS: A systematic search was performed on PubMed, Embase, and Cochrane from inception until 15th October 2021, without restrictions. Randomized controlled trials (RCTs) and observational studies that reported on the differences in the outcomes of AP patients treated with vs. without anticoagulation therapy (intervention vs. control group) were eligible. The random-effects model estimated pooled odds ratios (OR) and mean differences (MD) with 95% confidence interval. The study protocol is registered on PROSPERO, CRD42021283239.

RESULTS: Out of 7799 articles, we included seven in the meta-analysis. Analyses of the RCTs revealed that: mortality is significantly decreased in the anticoagulation group (236 patients) by comparison with the control group (237 patients) [OR 0.24; 95%CI 0.13; 0.45; I2 = 0%]. Moreover, anticoagulant treatment was associated with a significantly lower rate of multiple organ failure in the intervention vs control group (219/213 patients) [OR 0.33, 95%CI 0.18; 0.63; I2=0%]. Also need for endoscopic/surgical interventions for the management of AP was lower in the intervention vs. control group (236/237 patients) [OR 0.41, 95%CI 0,19; 0.90; I2=0%]. Length of hospital stay was shorter in the anticoagulation vs. control (6012/6013 patients) [MD -5,48 days, 95%CI -9,87; -1.10; I2=98%]. The analysis included both RCTs and observational studies. One RCT evaluated the risk of bleeding which had a lower incidence in the intervention group.

CONCLUSIONS: Based on our results, anticoagulants are safe and reduce the complication rates in moderately severe and severe AP cases. Further trials are needed to assess the safety of anticoagulant in mild AP and evaluate the risk of bleeding.

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USEFUL BOWEL ULTRASOUND CHARACTERISTICS IN MONITORING INFLAMMATORY BOWEL DISEASE PATIENTS

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KEYWORDS: Inflammatory bowel diseases, bowel ultrasonography

BACKGROUND: Bowel ultrasound (BUS) is becoming a useful tool in managing inflammatory bowel diseases (IBD). Current guidelines recommend BUS as a complimentary imaging technique together with other cross-sectional imaging modalities to diagnose and monitor IBD patients. IBD are chronic diseases that require multiple endoscopic and imaging assessments, being diseases that not only involve a multitude of medical resources but patient compliance too.

METHODS: The study included 117 IBD patients of which 28 were diagnosed with ulcerative colitis and 89 with Crohn's disease. Diagnosis was established endoscopically and histologically and both patients with active and inactive disease were included. Exclusion criteria consisted in patients with other causes of inflammatory syndrome or with solely rectal localization of the disease. Subjects were prospectively evaluated using BUS and several sonographic aspects of the bowel wall were monitored (bowel wall thickness (BWT), bowel echo pattern, Doppler signal (DS) presence, hypertrophic mesentery and presence of lymph nodes). Biological markers of inflammation were obtained including faecal calprotectin. Patients were followed up for the next 6 months and data regarding switching therapy was noted.

RESULTS: Good correlations were observed for the measurement of the BWT (Pearson equation, r= 0.41, r=0.45 and r=0.45, r= 0,57 p<0.001) and values of C-reactive protein (CRP), erythrocyte sedimentation ratio (ESR), faecal calprotectin, and disease activity scores.
Significantly higher values of clinical and biological markers were associated with the presence of parietal DS (p<0.0001) suggesting that this BUS feature is an important bowel wall inflammation surrogate. Higher Limberg scores correlated with increased values of biological markers of inflammation (p=0.002). The multivariate analysis showed that DS and a thicker than 5 mm bowel wall were independent predictors of step-up therapy. A higher than 5 mm BWT multiplied the risk of step-up therapy 2.4 folds. The presence of parietal DS raised the patient risk of switching therapy 7.6 times, making this BUS feature the most useful in evaluating inflammatory activity and predicting the need for treatment intensifying.

CONCLUSIONS: BWT and DS are two of the most important BUS features to use in evaluating and monitoring IBD patients and could have a role in disease decision making. These ultrasonographic characteristics are easy to identify even by someone with little experience in BUS, encouraging this imaging method use.

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TIGHT DISEASE CONTROL IN IBD. EXPERIENCE FROM A TERTIARY IBD CENTER

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KEYWORDS: treat-to-target, tight control, inflammatory bowel

disease

ABSTRACT: The availability of new treatment options in inflammatory bowel disease (IBD) challenges us to redefine the management of the disease and set new potential targets in disease control. The International Organisation for the Study of Inflammatory Bowel Disease (IOIBD) has recently updated the recommendations for IBD monitoring and treatment targets in STRIDE II initiative. The proposed algorithm suggests a treat-to-target approach that implies setting a treatment goal for an individual patient and further monitoring eventually optimising therapy to reach that goal. For Crohn's disease (CD) and ulcerative colitis (UC) symptomatic remission and endoscopic healing were defined as the most important targets in concordance with STRIDE I objectivesalong with the introduction of quality of life assessment and also considering the concept of histological healing as a treatment goal.Non-invasive markers of monitoring such as fecal calprotectin and C-reactive protein are recommended to assess disease progression and select the proper time for more extensive investigations such as endoscopy and imagistic procedures. Lately, intestinal ultrasound has evolve as an efficient non-invasive and well-accepted by patient procedure in disease monitoring. Despite the arrival of novel molecules with different mechanisms of action that aim to prevent disease progression and re-establish quality of life with decrease in disability and better established algorithm regarding the moment and type of procedure performed for tight disease control, in clinical practice intensive monitoring represents a burden for both the patient and health care system and in many cases targets such as hystological healing even endoscopic healing are impossible to reach. We aim to present the emerging strategies in IBD monitoring, define targets in IBD treatment, instruments used in monitoring and we also introduce real-life data regarding disease outcomes in patients with IBD from our IBD tertiary centre.

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METABOLOMICS ANALYSIS IN THE DIAGNOSIS AND ETIOLOGICAL DIFFERENTIATION OF ACUTE PANCREATITIS

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INTRODUCTION: Acute pancreatitis (AP) is a common disease with increasing incidence. Metabolomics is a systematic method for the qualitative and quantitative analysis of all low-molecular-weight metabolites in a certain biological or physiological period. Metabolite profiling is a promising tool for AP diagnosis, etiological differentiation, and even developing new drugs.
Aims and methods

THE AIM of the current study was to establish a serum metabolomics approach to identify the potential diagnostic biomarkers for AP and to distinguish between the two main types of the disease, biliary AP (BAP) and alcohol induced AP (AAP).
This was a prospective study that included patients with AP. Control group without known gastrointestinal disease, with match ages and sex distribution was selected.
All the AP participants underwent blood tests on the second day of admission.
Samples were centrifuged and then stored at -80°C, metabolites were extracted using solvents (methanol: acetonitrile, 1:1), then high performance liquid chromatography coupled with mass spectrometry (LC-MS) was performed. After a successive alignment and normalization of matrix data we performed statistical analysis, including random forest analysis, using the biomarker analysis, the receiver operating curves (ROC) were obtained, finally enrichment analysis allowed the identification of specific alterations of metabolic pathways.

RESULTS: We included 34 patients in the AP group, and 26 individuals in the control group.
We identified 13 molecules with AUC value >0.8 for predicting AP.
The majority of the molecules we identified were part of the lysophospholipids (LyP) subclass of lipids. Some of these metabolites were previously reported to play inflammatory, anti-haemostatic, and cytotoxicity roles, role in calcium signalling. Targeting these pathways were proposed as therapeutic targets for many inflammatory disorders.
To differentiate AAP form BAP the best AUCs obtained were only acceptable.

CONCLUSION: The current results suggested that metabolomics is a valuable tool for identifying the molecular mechanisms that are involved in the mechanism of AP.

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NEUTROPHIL TO LYMPHOCYTE RATIO, A NEW BIOMARKER IN CROHN DISEASE?

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KEYWORDS: biomarker, Crohn Disease, neutrophil/lymphocyte ratio

INTRODUCTION: Crohn disease (CD) is a chronic, recurrent and idiopathic ill, it's characterized by relapsing/remitting inflammation. The prevalence of Crohn disease is increasing in

many countries. In CD, the biomarkers are frequently used in the diagnosis and monitoring of disease activity. Neutrophil–lymphocyte ratio (NLR) is a hematologic, non-invasive biomarker of the systemic inflammatory response. We aimed to identify any changes of neutrophil to lymphocyte ratio in patients with CD in comparison with healthy controls without CD.

MATERIAL AND METHODS: We performed a retrospective case-control study in which we included patients with CD in remission and in activity from Department of Gastroenterology from Targu Mures and an healthy control group without CD. Patients with acute infection, acute gastrointestinal disease, malignancy, cirrhosis, other inflammatory diseases and incomplete data were excluded from the study. The final study group included 26 patients with CD in activity, 25 patients with CD in remission and the control group was formed by 28 healthy patients without CD.

RESULTS AND CONCLUSIONS: The mean value of the neutrophil/lymphocyte ratio is statistically higher in patients with Crohn's disease compared with those without inflammatory bowel disease (p <0.001), also the mean value of the ratio was significantly higher in those with active disease comparative with those in remission (p<0.001) and between the group of patients in remission and those without inflammatory bowel disease, the value of the ratio was not statistically different. In conclusion, the serum level of the neutrophil/lymphocyte ratio could be a good marker used in the follow-up of patients with Crohn's disease, but prospective studies and correlations with other inflammatory and endoscopic markers are needed.

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INCIDENCE OF CLOSTRIDIOIDES DIFFICILE IN PATIENTS DIAGNOSED WITH ACUTE PANCREATITIS: RESULTS FROM A TERTIARY REFFERAL CENTER

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KEYWORDS: acute pancreatitis, Clostridioides difficile infection, antibiotics

BACKGROUND: Clostridioides difficile infection (CDI) remains the leading cause of healthcare-associated diarrhoea worldwide. Despite multiple efforts to prevent this infection, CDI has increased over past years both in incidence and severity. The aim of our study was to assess the incidence of CDI in patients diagnosed with acute pancreatitis in our clinic.

MATERIAL AND METHODS: We conducted a descriptive cohort study with prospective data collected from all patients with acute pancreatitis (AP) admitted to our tertiary referral center in North Eastern Romania between January 1st and December 31th, 2021. Demographic data and clinical characteristics were reviewed.

RESULTS: The study population included 104 patients (mean age 49.62±13.59 years) diagnosed with AP, predominantly male patients (68.2%). A total of 40 (38.4%) were diagnosed with biliary AP and 64 (61.5%) with alcoholic AP. Twelve patients (11.5%) were diagnosed with CDI. Of those, 8 (66.6%) were diagnosed with alcoholic AP and 4 (33.3%) with biliary AP. Regarding AP severity in patients diagnosed with CDI, using modified CT severity index (mCTSI), we identified a number of 3 (25%) patients with severe AP (mCTSI: 8-10). A moderate form of AP was assessed in 5 (41.6%) patients (mCTSI: 4-6). The rest of patients had a mild form of AP with a mCTSI score of 2-4 (33.3%). Antibiotics were used in 8 (66.6%) of patients, with cephalosporins and fluoroquinolones being the most recommended.

CONCLUSION: Acute pancreatitis is a common cause of hospital admission and patients with severe disease are often given antibiotics. Due to the fact that CDI can complicate hospitalizations for acute pancreatitis. antibiotics should be used very judiciously.

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CHALLENGES IN CREATING THE HEREDITARY COLORECTAL CANCER SYNDROMES PATIENT REGISTER IN A TERTIARY CENTER

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KEYWORDS: colorectal cancer, hereditary syndromes, cancer register

INTRODUCTION: Hereditary colorectal cancer (HCRC) syndromes represent a relatively diverse group of disorders that exhibit different patterns of inheritance. Our aim is to create the very first patient register , making Fundeni Clinical Institute the center to seek for this category of patients

MATERIALS AND METHODS: We started interviewing patients that arrived in our clinic since August 2021. We gathered family and personal history, also we analyzed symptoms of debute like lower gatsronintestinal bleeding, transit abnormalities, abdominal pain, smoker status, and biological parameters like haemoglobin levels. Most patients performed during their multiple stays in hospital both upper endoscopy and colonoscopy, and at least one CT scan for screening of other organs that might have been affected

RESULTS: Until now, we have 19 index patients that have either a genetic, histological or clinical diagnosis. Out of them, six have been diagnosed with Lynch Syndrome (LS), one of them has the gene mutation for MUTYH associated polyposis, five with Familial Associated Polyposis (FAP), three of them with Attenuated FAP and last we have 4 patients with Peutz-Jeghers Syndrome, three of them being memebers of the same family We met some challenges in persuading their relatives that coming in for screening is the best solution in order to prevent a

cancer diagnosis in a late stage. Most challenges come from fear of knowing they carry an illness that they may have potentially transmitted to their children. There are already patients that suffered complications by not coming to their appointments, like bowel obstruction in one of the PJS patients, colonic cancer in the carriers of the LS gene.

CONCLUSION: While challenging, this first year demonstrated the urgent need for this register and for a better managements of these patients that carry multiple potential complications that come with their respective syndromes.

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CIRCULATING CELL-FREE DNA BIOMARKERS ARE ASSOCIATED WITH POOR PROGNOSIS IN PANCREATIC ADENOCARCINOMA – A SYSTEMATIC REVIEW AND META-ANALYSIS

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KEYWORDS: pancreatic adenocarcinoma, cell-freeDNA, prognosis

INTRODUCTION: Pancreatic cancer has a poor prognosis with a 5year overall survival rate of around 8%. (1,2). Biomarkers that early signal therapy resistance may allow a more accurate management adjustment. In our systematic review and meta-analysis, we assessed the prognostic role of circulating cell-free DNA (ccfDNA) biomarkers in pancreatic ductal adenocarcinoma (PDAC).

MATERIALS AND METHODS: The systematic search was performed on the 21st of October, 2020 in 5 databases without restrictions. Studies reporting on survival differences in PDAC based on peripheral blood cfDNA status were reviewed. The random effect model yielded the pooled hazard ratios (HRs) and 95% confidence intervals (CI).

RESULTS: We included in the meta-analysis 40 studies counting 3323 patients. Both detection of ctDNA (HR=2.17, CI:1.63-2.9, HR=2.16, CI:1.57-2.97) and specifically of KRAS mutations within ccfDNA (HR=1.49, CI:1.17-1.89, HR=1.88, CI:1.22-2.92) were associated with decreased overall survival (OS) and progression-free survival (PFS) respectively when all PDAC stages were analyzed together. In unresectable cases only ctDNA detection corresponded to decreased PFS (HR=2.46, CI=1.98-3.07) and OS (HR=2.42, CI=1.98-2.95), while KRAS mutations alone had no significant impact. From studies reporting on resectable cases, results for all types of biomarkers were pooled collectively, and their detection indicated a poorer prognosis.

CONCLUSION: Our data confirm that positive ccfDNA biomarkers indicate disease progression and a decreased overall survival in PDAC. Detection of ctDNA but not of KRAS mutations alone seems more appropriate to evaluate the unresectable cases.

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THE PROGNOSTIC ROLE OF CIRCULATING EXOSOMAL BIOMARKERS IN PANCREATIC DUCTAL ADENOCARCINOMA –A SYSTEMATIC REVIEW AND META-ANALYSIS

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KEYWORDS: apancreatic adenocarcinoma; exosomes; prognosis

INTRODUCTION: Extensive research is focused on the role of liquid biopsy in pancreatic cancer since reliable diagnostic and follow-up biomarkers represent an unmet need for this highly lethal malignancy. We performed a systematic review and meta-analysis on the prognostic value of circulating exosomal biomarkers in pancreatic ductal adenocarcinoma (PDAC).

MATERIALS AND METHODS: MEDLINE, Embase, Scopus, Web of Science, and CENTRAL were systematically searched without restrictions on the 18th of January, 2021 for studies reporting on the differences in overall (OS) and progression-free survival (PFS) in PDAC patients with positive versus negative exosomal biomarkers isolated from blood. The random-effects model estimated pooled multivariate-adjusted (AHR) and univariate hazard ratios (UHRs) with 95% confidence intervals (CIs).

RESULTS: Eleven studies comprising 634 patients were eligible for meta-analysis. When analyzing all PDAC stages jointly, detection of positive exosomal biomarkers indicated increased risk of mortality (UHR=2.81, CI:1.31–6,00, I2=88.7%, p<0.001), and progression (UHR=3.33, CI: 2.33–4.77, I2=0, p=0.879) Moreover, specific detectection of exosomal micro ribonucleic acids were associated with a decreased OS (UHR=4.08, CI: 2.16–7.69, I2=46.9%, p=0.152) In resectable stages, positive exosomal biomarkers identified preoperatively revealed a higher risk of mortality (UHR=5.55, CI: 3.24–9.49, I2=0, p=0.898). The risk of mortality in unresectable stages was not significantly increased with positive exosomal biomarkers (UHR=2.51, CI: 0.55–11.43, I2=90.3%, p<0.001).

CONCLUSION: Our results reflect the potential of exosomal biomarkers for the prognosis evaluation in PDAC. The associated heterogeneity reflects the variability of study methods across the eligible studies and need for their uniformization before transition to clinical use.

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HLA GENOTYPING IN ROMANIAN ADULT PATIENTS WITH CELIAC DISEASE, THEIR FIRST DEGREE RELATIVES AND HEALTHY PERSONS

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KEYWORDS: aRegorafenib, hepatocellular carcinoma, second-line

INTRODUCTION: Celiac disease is characterized by an inappropriate T-cell-mediated response to gluten in small bowel in genetically predisposed individuals, carriers of the DQ2 and/or DQ8 haplotypes of the human leukocyte antigen. The aim of our study was to asses HLA typing in adult patients with celiac disease, in their first degree relatives and in a healthy control group.

METHODS: We conducted a prospective observational study on three cohorts: 117 patients diagnosed with celiac disease, 41 first-degree relatives of celiac patients and 57 asymptomatic healthy volunteers. Low resolution HLA typing for DQ alleles was performed in all study subjects with DNA extracted from peripheral blood, using SSP HLA-DQB1 kit (Innotrain Diagnostik GmbH, Germany). Next Generation Sequencing (NGS) was used only in 18 patients for typing confirmation of DQB1 and DQA1 loci and whole gene sequencing.

RESULTS: Prevalence of HLA-DQ2 was significantly higher in the CD group compared to the healthy subjects group (95.6% vs 29.8%, p <0.001), with no statistically significant differences in HLA-DQ8 and combined HLA-DQ2/DQ8 prevalences. Several HLA DQA1 and DQB1 alleles (HLA-DQA1* 05:01, HLA-DQB1*02:01, HLA-DQB1*02:02) and haplotypes (DQA1*02:01-DQB1*02:02,DQA1*05:01-DQB1*02:01) were strongly associated with celiac disease in our group: OR 4.28, 4.28, 4.67 and 5.43 and 4.28 respectively. Predominantly, patients presented with typical symptoms and iron deficiency anemia. 95.5% of them had histological Marsh type modifications ≥3a. A relatively poor response to gluten-free diet was observed and 9.4% developed complications (refractory celiac disease, enteropathy-associated T cell lymphoma, intestinal adenocarcinoma), with a death rate of 6.8%. 23% associated other autoimmune diseases.Screening adherence for 1st degree relatives was very low: only 16%. Familial screening diagnosed 4 cases of asymptomatic celiac disease. 32 relatives (78%) had HLA-DQ2 haplotype, 5 carried HLA-DQ8, 4 didn't carry any risk haplotype.

CONCLUSIONS: This study demonstrated a higher prevalence of the HLA-DQ2 genotype in patients with celiac disease compared to the healthy population but not of HLA-DQ8 or combined HLA-DQ2/DQ8. Alleles HLA-DQA1* 05:01, HLA-DQB1*02:01, HLA-DQB1*02:02 and haplotypes (DQA1*02:01-DQB1*02:02,DQA1*05:01-DQB1*02:01) were strongly associated with celiac disease in our cohort.

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ACUTE PANCREATITIS IN PATIENTS WITH COVID-19: CLINICAL CASES

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KEYWORDS: aCOVID-19, pancreatitis, comorbidities

INTRODUCTION: Acute pancreatitis (AP) was rarely reported in COVID-19 and the pathogenetic mechanism of pancreatic injury is still under debate.

MATERIAL AND METHODS: We report three cases of AP in COVID-19 patients who were treated in our hospital during pandemic.

RESULTS: Case 1. A 60-year-old female was admitted for epigastric pain and vomiting. She was previously diagnosed with chronic pancreatitis, liver steatosis, hypertriglyceridemia, type 2 diabetes, and hypertension. Pulmonary computed tomography (CT) showed no lesions. Serum amylase (637 U/l) and abdominal CT (peripancreatic fluid collections, a large inhomogeneous collection 80/80 mm in pancreatic head) confirmed AP. The clinical evolution was favorable with treatment, and the patient was discharged on day 25.
Case 2. A 63-year-old female, diagnosed with decompensated alcoholic liver cirrhosis, type 2 diabetes, hypertension and cholecystectomy, was admitted with cough, chills, fever and generalized weakness. Pulmonary CT showed multiple ground-glass opacities (50% lung involvement). After ten days of antiviral therapy and antibiotics she presented upper abdominal pain and increased amylase (963 UI/l). Abdominal CT showed diffuse pancreatic enlargement. Despite therapy patient progressively developed liver and kidney failure, and died on day 24.
Case 3. A 83-year-old female with cardiac comorbidities (hypertension, coronary heart disease) and vascular dementia was admitted for shortness of breath, myalgia, fatigue. The lung involvement was more than 75% on CT (ground-glass opacities, interlobular septal thickening). After a week of antiviral treatment and antibiotics, she developed acute renal failure and elevated amylase level (850 UI/l). Abdominal CT showed enlarged pancreas and fluid collections. The evolution was refractory to therapy with respiratory failure, shock, and death on day 46.

CONCLUSIONS: AP in the setting of COVID-19 may have an unpredictable evolution. Fatal outcome occurrs in severe COVID-19 disease and in severe pancreatitis, in elderly patients with comorbidities who developed organ failure.

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ASOCIATION BETWEEN HELICOBACTER PYLORI INFECTION, ERYTHEMATOUS GASTRITIS AND ULCER DISEASE AMONG THE RURAL POPULATION

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KEYWORDS: H. Pylori, gastritis, ulcer

INTRODUCTION: Helicobacter Pylori is a gram-negative, microaerophilic bacterium, discovered in 1982, with a significant role in multiple gastric pathologies, such as gastritis, ulcer disease, adenocarcinoma and MALT (marginal lymphoma associated with lymphoid tissue). Since 1994, H. Pylori (Helicobacter Pylori) has been recognized as a grade I risk factor by the International Agency for Research on Cancer, with 90% of MALT lymphomas being caused by H. Pylori.

METHODS AND MATERIALS: This is a retrospective study, carried out between the years 2018 and 2019, on a group of 107 patients from the rural area of Bihor county, who performed upper digestive endoscopy and fecal antigen H. Pylori. The prevalence of H. pylori infection in rural areas and the association between it and erythematous gastritis and ulcer disease were followed.

RESULTS AND CONCLUSIONS: H. Pylori infection was diagnosed in 47.66% of patients, in concordance with international studies, that state that almost half the population worldwide is infected with H. Pylori.
Ulcer disease was diagnosed in 22 patients (20.5%), H. pylori being the etiological agent in 59% of them.
Hyperemic gastritis was diagnosed in 50 patients (46.7%), and H. pylori was the etiological agent in 47.6% of cases.
In conclusion, H. Pylori had a similar prevalence to the data in the literature and was the main etiological agent for hyperemic gastritis and ulcer disease.

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ROMANIAN PATIENTS WITH BILIO-PANCREATIC TUMORS HAVE A POOR PROGNOSIS AND LIMITED ACCESS TO BOTH CURATIVE AND PALLIATIVE TREATMENT: RESULTS OF A PROSPECTIVE OBSERVATIONAL STUDY

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KEYWORDS: cholangiocarcinoma, pancreatic cancer, surgery

BACKGROUND&AIMS: Biliopancreatic tumors (BPT) are among the most aggressive solid malignancies, and their incidence is rising. Good patient outcome relies heavily on a multidisciplinary approach to therapy, including timely access to endoscopy, surgery and chemo/radiotherapy. As previously shown by our group, Romanian biliopancreatic tumor patients have a poor overall prognosis, probably due to systemic barriers to healthcare access. We aimed to evaluate patient outcomes and access to care in the setting of a low-resource medical system and identify areas suitable for improvement.

MATERIAL AND METHODS: We conducted a prospective observational study of patients with pancreatic cancers and extrahepatic cholangiocarcinomas evaluated at a tertiary referral center in Romania. We collected data on the tumor type and disease stage as well as ECOG status at diagnosis. A telephonic follow-up visit was performed at 3 months from baseline to collect additional data regarding evolution and subsequent treatment modalities (surgery, chemo/radiotherapy and/or palliative endoscopic interventions drainage as applicable).

RESULTS AND CONCLUSIONS: One hundred patiens were included in our study 65 were diagnosed with pancreatic cancer and 35 with extrahepatic cholangiocarcinomas. Fine needle biopsy was used for pathology confirmation in 69 patients, of which 10 of them (14 %) were nondiagnostic. Most of the patients were diagnosed with advanced stages of the disease (51% were characterised as unresectable at diagnosis). With regard to their management, only 3 (6.1%) of the patients staged as either resectable or borderline resectable underwent surgery with curative intent and only 28%received chemotherapy. The overall mortality at 3 months was 36% with the mention that 27% of the patients were lost to follow up. In conclusion, our results confirm that BPT patients in Romania have a dire prognosis which is probably linked to significant delays in diagnosis and barriers to healthcare access. This data confirms the urgent need for corrective measures at a systemic level, to improve patient outcomes.

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HEMORRHOIDAL DISEASE: RUBBER BAND LIGATION RESULTS

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KEYWORDS: hemorrhoidal disease, ligation

INTRODUCTION: Hemorrhoidal disease (HD) benefits of several treatment approaches: medical, instrumental (in particular rubber band ligation-RBL) and surgical. The aim of our work was to evaluate the outcome and short- and long-term tolerance of RBL.

PATIENTS AND METHODS: This was a single-unit descriptive retrospective study spanning 3 years (2017-2020). We collected all patients who were treated with RBL on an outpatient basis. Demographic, clinical and endoscopic data relating to the patients and their disease were studied. Data entry was done using Excel software.

RESULTS: 54 patients (M/F =, mean age 43 years) were included and followed in average for 18.2 months (1-48). 15% of patients were smokers and 40% consumed alcohol. The predominant symptomatology was rectal bleeding followed by proctalgia and constipation in 42, 8 and 4 patients respectively. The proctological examination was motivated by anemia in 30% of cases (3.7 % requiring a transfusion). Two-thirds of patients had internal hemorrhoids (IH) grade2 according to Goligher's classification; 30% had grade 3 IH. The indication for RBL was a failure of medical treatment in 80% of cases. The average number of RBL sessions was 3 (1-8) and also the average number of rubber bands/patient was 3. RBL was complicated by: minimal bleeding in 8 patients (14.8%), pain within 24 hours of ligation in 14 patients (9 requiring analgesics and 2 with ulceration after fall of pressure sores) and external hemorrhoidal thrombosis in 4 cases. The evolution was good in the majority of cases (85.2%). Four patients underwent surgery due to the failure of RBL treatment.

CONCLUSION: In our series, the treatment of symptomatic IH by RBL was effective and without serious complications in the majority of cases. These results were consistent with the data in the literature, which underlines the important role of RBL in the management of HD.

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ANALYSIS OF THE EFFECTS OF PEPSIN ON WHOLE SALIVA BY HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY: PAVING THE WAY FOR POTENTIAL NEW GERD BIOMARKER DISCOVERY

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KEYWORDS: GERD; salivary biomarker; proteomics

INTRODUCTION: At the moment, establishing a diagnosis of gastroesophageal reflux disease (GERD) relies on a combination of clinical symptoms, response to acid suppressive treatment, endoscopic evaluation and ambulatory reflux monitoring. Given its complexity, there has been increasing interest in recent clinical research in finding practical reliable tools that could aid a GERD diagnosis. We present the proteomic analysis of the effects of pepsin on salivary proteins using High Performance Liquid

Chromatography (HPLC), which may pave the way for novel salivary biomarker discovery.

MATERIALS AND METHOD: Whole saliva was collected from a healthy volunteer. A 4.7% pepsin solution was prepared and then acidified to a pH of approximately 1.2 using hydrochloric acid in order to create an adequate environment to allow proper proteolytic activity. Two samples were prepared by mixing pepsin solution with whole saliva in a 1:2 ratio, which were then vortexed for two minutes at 3.000 rpm and incubated at 37°C for 5 and 30 minutes, respectively. Each batch was then centrifuged for 5 minutes at 12.000 rpm. Supernatant samples were then desalted, concentrated and purified using the ZipTip method, mixed with trifluoroacetic acid 0.1% (1:4) and analysed using HPLC.

RESULTS: The HPLC proteomic analysis identified new peaks in the mixture of whole saliva and pepsin that were not present previously in simple saliva samples. These striking peaks represent new peptides resulted from the proteolytic action of pepsin on salivary proteins. Detection of these distinct peptides in saliva retrieved from patients may prove useful as potential biomarkers for GERD, as their presence could suggest gastric reflux.

CONCLUSION: Salivary proteome analysis is a promising tool in novel GERD biomarker discovery. These results pave the way for further research which may prove clinically useful in the future.

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CORRELATION BETWEEN SMOKING INDEX AND OXIDATIVE STRESS VALUES IN PATIENTS WITH CHRONIC PANCREATITIS

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KEYWORDS: smoking index, chronic pancreatitis, oxidative stress

INTRODUCTION: The effect of both active and passive smoking in the development and evolution of chronic pancreatitis (CP) has been mentioned in numerous studies, demonstrating a direct correlation between chronic exposure to cigarette smoke and damage to pancreatic tissue.
Purpose. Assessment of the correlation between the smoking index (SI) ind the oxidative stress (OS) indices in the patients with CP.

MATERIAL AND METHODS: The study comprised of 100 patients with CP, male/female-55% /45%, mean age–47,02±0,93 (19-59) years. Clinical and paraclinical changes, specific to CP, were evaluated according to the recommendations of the European Society of Gastroenterology, the International Pancreatology Association. The informed consent was obtained from all individuals included in the study. OS was studied by revealing the indices of lipid peroxidation (LP) and the antioxidant system (AOS) in the venous blood. Indices of LP: early hydroperoxides in hexane / isopraponolic phase (early- HPL-hexane / isopr.), intermediate hydroperoxides in the hexane / isopraponol phase (intermediate-HPL-hexane / isopr.), late hydroperoxides in the hexane / isopraponol phase (late-HPL-hexane / isopr.), Malonic Dialdehyde (MDA). Indices of AOS: Total Antioxidant Activity (TAA) in the hexane and isopropanolic phases, Superoxidismutase (SOD), Catalase, Glutadione reductase (GR). The correlation between SI and OS indices was determined using the Pearson r xy linear correlation coefficient.

RESULTS: The mean value of SI was 23.13 ± 1.63. The presence of a direct average correlation was identified between SI and the LP parameters: early-HPL- hexan. (r = 0.51; p <0.001), intermediate.-HPL- hexane (r = 0.36; p <0.01), early-HPL- isopr. (r = 0.41; p <0.001). It was identified that the SI value is in inverse average correlation with the AOS values: TAA-hexane. (r = -0.41; p <0.01), TAA-isopr. (r = -0.40; p <0.01), SOD (r = -0.47; p <0.001), Catalase (r = -0.40; p <0.01), GR (r = - 0.4; p <0.001).
Conclusion. Active smoking is a risk factor for CP by inducing OS (increasing the activity of LP indices and decreasing the activity of AOS).

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DIAGNOSTIC ACCURACY AND OPTIMIZATION OF COLORECTAL CANCER TREATMENT IN COVID-19 PANDEMIC

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KEYWORDS: colorectal cancer, diagnostic, treatment

INTRODUCTION: Colonoscopy is the procedure of choice in screening and surveillance of colorectal polyps and cancers, providing the diagnostic and therapeutic evaluation in colonic neoplasms.

MATERIAL AND METHOD: The study included 134 patients (93 men and 41 women) with a mean age of 69 years admitted to the Gastroenterology Institute, ''St. Spiridon '' Hospital between March 2020 - April 2022 for lower bleeding, iron deficiency anemia, intestinal transit disorders, abdominal pain which were explored biologically, by colonoscopy, abdominal ultrasound, CT/MRI. The PCR test for Sars-Cov-2 was negative.

RESULTS: The colonic tumors were dysplastic polyps: 28-5 women and 23 men (21%), cecal neoplasm: 11 cases- 5 women and 6 men (8%), ascending colon neoplasm: 21 cases, 12 men and 9 women (16%), transverse colon neoplasm: 7 cases - 4 men and 3 women (5%), descending colon neoplasm: 20 cases - 7 women

and 13 men (15%), sigmoid neoplasm: 10 cases - 2 women and 8 men (7%), rectal neoplasm: 37 cases - 21 men, and 16 women (28%). A total of 92 complete colonoscopies were performed and the others 42 were incomplete due to stenotic tumors. Polypectomy was performed in polyps with severe dysplasia, while surgical and oncological treatment were performed in obstructive tumors. 29 patients with severe dysplastic polyps underwent endoscopic polypectomy (22%), 62 were referred for surgery (46%) and 43 patients (32%) to Regional Oncological Institute and Palliative Care.

CONCLUSIONS: CRC diagnosed by colonoscopy was predominantly in elderly men with iron deficiency anemia. Optimization of CRC treatment involves a multidisciplinary team and abdominal ultrasound extended with CT/MRI are required before surgical and oncological treatment. Excision of adenomatous polyps with severe dysplasia is mandatory in CRC prevention. Delaying colonoscopy after a positive FOBT/ FIT increases the risk of advanced CRC with emergency colonoscopy in the Covid-19 pandemic.

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EFFICACY AND TOLERANCE OF CHEMOTHERAPY BY LEUCOVORIN AND 5FLUOROURACIL 2 TIMES (LV5FU2)-CARBOPLATIN IN PATIENTS WITH PANCREATIC ADENOCARCINOMA (PA) AFTER FAILURE OF OTHER CHEMOTHERAPY

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KEYWORDS: aRegorafenib, hepatocellular carcinoma, second-line

INTRODUCTION: The aim of this retrospective study was to report the efficacy and tolerance of the combination 5-fluorouracil and carboplatin (LV5FU2-carboplatin) in patients with advanced PA and maintaining a general condition preserved after failure of standard chemotherapy.

PATIENTS AND METHODS: We included all consecutive patients who received at least one course of CT by LV5FU2carboplatin, for a Histologically proven PA evolved, in the Medical Oncology Department within the Paolo Giaccone University Hospital of Palermo between 05/2020 and 04/2022.

RESULTS: A total of 40 patients were included (sex ratio M/F=1) with a median age of 55. CT by LV5FU2-carboplatin was initiated a median of 15 months after the initial diagnosis of the PA (IQR, 11-22), for a locally advanced PA or metastatic in respectively 10% and 90% of cases; 50% of patients had extra-hepatic metastases. 75% of patients had received at least 2 prior lines of chemotherapy including oxaliplatin. the carboplatin was proposed due to tumor progression or oxaliplatin toxicity in respectively 80% and 20% of cases. Residual neurotoxicity was present in 80% of cases. The number of cycles administered and the duration of the CT

were respectively 3 (IQR, 2-6) and 1.5 months (IQR, 0.1-2.5) median. The most common grade 3-4 adverse reactions were neutropenia (20%) and thrombocytopenia (10%). A worsening of residual neurotoxicity was observed only in 15% of patients. The rates of objective response and tumor stabilization under LV5FU2carboplatin, evaluable in 32 patients, were 6.5% and 28%, respectively. The median progression-free survival was 2.7 months (95% CI, 2.4-3.0). In multivariate analysis, the risk of progression or death was significantly increased in case of ascites or pain morphino-requiring (HR 2; p=0.03).

CONCLUSION: The LV5FU2-carboplatin combination has limited efficacy in patients with of advanced AP after failure of other chemotherapies.

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ROMANIAN CURRENT TRENDS IN GASTRIC CANCER

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KEYWORDS: gastric cancer; prevalence; Romania

INTRODUCTION: Gastric cancer is the fourth most common cause of cancer death and the seventh most common type of cancer worldwide, based on GLOBOCAN 2020 data (1). Helicobacter pylori infection and diet carcinogens are frequently seen in high-risk populations. Current data indicates that Romania is a low-risk region for gastric cancer (2).

MATERIALS & METHODS: We aimed to provide updated clinical and epidemiological data of the current status of gastric cancer in Romania. We conducted a retrospective study using our tertiary care center's database of 188 patients diagnosed with primary gastric cancer in the Second Medical Department, Emergency Clinical County Hospital, Cluj-Napoca, Romania from January 2016 to December 2021.

RESULTS AND CONCLUSIONS: Out of 7316 upper gastrointestinal endoscopies performed in our department between 2016 to 2021, we identified 188 patients with a primary diagnosis of gastric cancer admitted in our department. 63% of patients were men and 37% were women. The mean age at admission was 69.2 years, while 68% of patients with this diagnosis had 65 years or above, distribution of age varied from 33 to 88 years. The most common sites of gastric cancer were the corpus (46.7%) and the antrum (31.9%). Adenocarcinoma was identified in 90.4% of patients, the intestinal subtype being predominant in 77,6% of patients, while the diffuse subtype was observed in 12.8% of patients. Helicobacter pylori infection at the time of diagnosis was present in 37% of cases. Romania continues to remain a low-risk country for gastric cancer. Although currently being described

as falling in incidence, the intestinal subtype of adenocarcinoma still remains the most prevalent subtype overall. Management of risk factors in high-risk population and endoscopic surveillance in patients with premalignant lesions may be the key to further-decrease the prevalence of the disease.

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COVID 19 PANDEMIC AND IBD PATIENTS – A TWO YEAR EXPERIENCE

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KEYWORDS: inflamatory bowel disease, COVID-19, quality of life

INTRODUCTION: It is well known that IBD patients are vulnerable to stress factors and anxiety, so the COVID19 pandemic has added one more layer of concern regarding the evolution of their illness. Due to the highly infectious and pathogenic nature of SARS-COV-2, patients have shown an increase in anxiety and even panic. One way of following the course of these patients was by using the IBD Disk questionnaire to try to apreciate how their quality of life has changed.

METHODS: A prospective review was performed between April 1, 2020 and March 1, 2022 on actively managed IBD patients using the IBD Disk questionnaire, as we tried to understand how their quality of life has changed throughout the pandemic. We have asked the patients to answer the IBD Disk questionnaire within the first month of the pandemic, then after 6 months, 1 year and finally after two years (march 2022).

RESULTS: 32 of current 146 active chronic care patients were included, with ages between 20 and 70 and 59% males. 72% have Crohn's disease, while 28% have ulcerative colitis. At the begining of the pandemic most of our patients were having trouble sleeping – 95,8% , and also have experience an increase in their anxiety- 87,5%. After 6 months of SARSCO2 pandemic, 100% of the patients were accusing lack of energy, and due to all restrictions 93,7% have had trouble with their interpersonal interactions. After 1 year when we gave them the IBD Disk questionnaire , the situation appeared to change and their reports regarding the quality of life have started to slightly improve: 37,5% were experiencing anxiety, 65,6% were having trouble sleeping, 78% were experiencing fatigue, but still 100%

have reported abdominal pain. After two years, when we asked the the same questions again, our patients seemed to respond quite similarly : 34,3% have reported anxiety, 62,5% said they were having difficulty sleeping, and the abdominal pain remained a constant issue for all the patients. Within the first year , 33,3% of our patients have had flare-ups, but our latest results have shown a decrease in their number- 9,3% have had flare-ups over the last year. There were 0 hospitalizations required for COVID management.

CONCLUSION: The IBD Disk questionnaire proved to be a usefull tool to asses the clinical and psychological evolution of our patients, especially durind this period of time with the SARSCOV2 pandemic, when hospital access has been limited. Although our study included just a few patients, it seems to be worth doing more studies using this questionnaire, in order to better and more easily evaluate our patients.

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KNOW YOUR POLYPS! – A CASE OF VANEK TUMOR

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KEYWORDS: Vanek tumor; Fibroid inflammatory polyp; Gastrointestinal stromal tumor

INTRODUCTION: Vanek's tumor or inflammatory fibroid polyp is a benign lesion of the gastrointestinal tract that usually presents as a submucosal tumor with normal covering mucosa that can easily be confused with a gastrointestinal stromal tumor (GIST).

METHODS: A 50-year-old female came to the emergency room complaining of melena and fatigability that started 5 days prior the presentation. Physical exam showed pallor of the skin and digital rectal examination was positive for melena. Biological tests revealed mild normochromic normocytic anemia with a hemoglobin of 11.5 g/dl. The patient was hospitalized, and one day later a drop of 2 points in hemoglobin was observed. Upper endoscopy revealed on the posterior wall of the antrum a 2.5 cm sessile lesion with normal covering mucosa but ulcerated in the centrum. The suspicion of an ulcerated GIST was raised, and biopsies were taken. Treatment of proton pump inhibitor was initiated with favorable evolution of the upper gastrointestinal bleeding and remission of the melena.
Standard microscopy examination showed foveolar hyperplasia and mild chronic inflammatory infiltrate, while

immunohistochemistry confirmed the final diagnosis of fibroid inflammatory polyp. The patient came back 2 months later for endoscopy control. Examination showed a change in the general appearance of the lesion that grew bigger and develop a stalk. Despite the good prognosis of the lesion, the patient wanted the polyp to be removed, because she was afraid of developing further complications.

RESULTS: Standard polypectomy technique was performed, and the histopathology exam of the resected piece confirmed one more time the diagnosis.

CONCLUSION: Vanek tumor is a rare lesion, that usually appears in the antrum and that can easily be mistaken by a GIST. Generally, is has a good prognostic but sometimes when the lesion is larger it can cause complications like bleeding or even gastric outlet obstruction.

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KRAS MUTATION PROFILE IN PANCREATIC DUCTAL ADENOCARCINOMA ASSESSED BY TARGETED DEEP NEXT GENERATION SEQUENCING OF FNA-GENOMIC DNA AND CFDNA SAMPLES

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BACKGROUND: Genomic profiling of non-resectable PDAC is important for personalized medicine. Plasma cfDNA is an attractive source of genomic information but concordance with primary tumor is currently under investigation.

THE AIM of our study was to assess by targeted deep NGS the genomic landscape of KRAS mutations in non-resectable PDAC samples. Genomic DNA and corresponding cfDNA were sequenced in 19 pathologically confirmed PDAC cases, whereas only cfDNA was available for genomic profiling in 9 cases. For all samples, clonal hematopoiesis was documented by sequencing corresponding leucocyte genomic DNA for each sample.

RESULTS: Pathogenic KRAS mutations were detected in 100% of PDAC samples. After excluding mutations of clonal hematopoiesis, FNA genomic DNA samples yielded 26 pathogenic KRAS mutations, whereas in cfDNA samples, 29 mutations were identified. The mean number of KRAS pathogenic mutations identified only in gDNA samples was 3.3 whereas the mean number of such mutations identified only in cfDNA samples, was 2.3. Concordance between the two DNA templates for at least one pathogenic KRAS mutation was encountered in 50% of cases. In gDNA, the most frequent pathogenic KRAS mutations were: p.(Asp57Asn) 36.8%, p.(Gly12Asp) 31.6%, p.(Gly12Val) 31.6%, p.(Ala18Val) 26.3%, p.(Ala66Val) 26.3%, p.(Ala11Val), p.(Gln43Ter), p.(Gly12Arg) 21% respectively. In cfDNA samples the most frequent pathogenic KRAS mutations were: p.(Ala59Val) 39.2%, p.(Gly12Asp) 28.5%, p.(Ala11Val) 17.8%, p.(Ala18Val) 17.8%, p.(Ala130Thr), p.(Ala146Val), p.(Ala59Thr), p.(Ala66Thr), p.(Gln43Ter) and p.(Gly15Asp), each 14.3% respectively. Overall, gDNA and cfDNA were complementary in assessing mutation landscape in our study group. Considering genomic landscape provided either by gDNA or cfDNA templates, the most frequent pathogenic mutation hot spot identified was G12 77.7%. Synchronous G12 and G13 pathogenic SNPs were identified in 22.2% of analyzed samples, whereas p.(Gly12Asp) mutation was present in 42.8% of cases.

CONCLUSIONS: Deep NGS of FNA gDNA and cfDNA provided complementary results to generate KRAS pathogenic mutations profile, in non-resectable PDAC patients. Pathogenic KRAS mutations were identified in 100% of samples, G12 being the most frequent mutation hotspot in our patients. The results are relevant since recently it has been shown that KRAS p.(Gly12Asp) can be subject of targeted therapies by potent inhibitors via formation of salt bridge.

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INTRAOPERATIVE ULTRASOUND GUIDED MICROWAVE ABLATION FOR INOPERABLE PANCREATIC CANCER – CASE SERIES

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KEYWORDS: pancreatic cancer (PC), locally advanced pancreatic carcinoma (LAPC), microwave ablation (MWA), radiofrequency ablation (RFA)

INTRODUCTION: Locoregional ablative treatments are presenting an increasing interest and broader use in oncologic diseases. Inoperable pancreatic tumors, refractory to neoadjuvant therapy, are calling for new approaches. Microwave ablation (MWA) showed some benefits over radiofrequency ablation in the past years. The aim of this paper is to underscore the benefits of performing intraoperative MWA of pancreatic tumors in a multimodality approach.

METHODS: We have retrospectively reviewed patients with

inoperable pancreatic cancer treated with intraoperative ultrasound guided MWA between 2019 and 2021. We used the Evident Medtronic ablation system, a generator producing 45 W at 950 MHz, and a 14Gauge antenna, with a 3.7mm active tip.

RESULTS: All five patients (3 females), with a median age of 52 yo, had histology proven for malignancy before procedure. Three patients had LAPC located in the head of the pancreas, one had a pancreatic neuroendocrine tumor (PNET) located in the uncinate process and one patient had five metastases from renal cell carcinoma located in the uncinate process (1), head (1), body (1) and tail (2) of the pancreas. The mean diameter of the tumor was 31.5 mm. The maximum follow up was up to 24 months after the procedure. Major complications encountered were necrotizing pancreatitis, pancreatic pseudocyst and pancreatic fistula with liver abscess. All have been resolved during hospitalization. One patient died from other complications, non-related to the ablation procedure, three months after the procedure.

CONCLUSIONS: Microwave ablation in advanced stage or inoperable patients with pancreatic head tumor is safe and feasible procedure. Multimodality approaches combining systemic chemotherapy and locoregional radiotherapy seem to offer better results in local tumor control and overall survival. Further studies should be supported in this direction.

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ENDOSCOPIC AND HISTOLOGICAL CORRELATIONS BETWEEN ULCEROHEMORAGIC PANCOLITIS AND COLONIC CROHN'S DISEASE IN PATIENTS EVALUATED IN A TERTIARY GASTROENTEROLOGY CENTER

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KEYWORDS: aRegorafenib, hepatocellular carcinoma, second-line

INTRODUCTION: Under the collective term of inflammatory bowel disease are combined Crohn's disease (CD) and ulcerative colitis (UC), which have similar clinical and paraclinical features, but the macroscopic and histological appearance is completely different, with distinct management implications. The definite diagnosis requires the corroboration of multiple informations and although most of the time doctors do not encounter problems in establishing a diagnosis, in 10% of cases the diagnosis cannot be specified without a doubt.

MATERIALS AND METHODS: We conducted a single-center study, including retrospectively detected patients with inflammatory bowel disease and aimed as primary endpoint to analyze data to certify whether or not there are correlations between the presumptive macroscopic diagnosis developed by the endoscopist and the histopathologicalone, reported by the histopathologist. Secondary endpoints were analysis of epidemiological data, clinical manifestations, description of macroscopic appearance and the existence of microscopic lesions specific to each pathology, as well as histopathological scores (GHAS for CD and Geboes for UC).

RESULTS AND CONCLUSIONS: 174 patients were eligible and were divided into two groups: 80 patients with a presumptive diagnosis of CD and 94 with UC. Of these, 52.9% are men and 47.1 are women, 74.7% are from urban areas and have an average age of onset of the disease of 38.0 years. The most frequently reported macroscopic appearance was erythema and edema for both groups: 76.4% and 87.4% people, respectively. Also, mucosal friability and granular appearance were reported in 36.2% and 44.3% of patients, respectively, predominantly in those with UC. The severe disease was argumented by the description of pseudopolyps and the existence of scars in 25.3% and 14.9% of patients, respectively. Mucosal erosions were reported in an overwhelming proportion of 75.9% of patients, with equal percentages between the two groups. The diagnosis of CD was justified by the specific "cobblestone lesions" described in 16.1% of patients, the lack of clear demarcation between lesions and normal mucosa in 67.2% of patients and the interposition of normal mucosa among lesions in 68.4% of patients. Regarding the histological features, severe forms are reported in overwhelming proportions for both groups. Data on the correlations between endoscopic severity and Mayo score reported positive statistical values. On the other hand, our study did not show a statistically significant association between predictors and BC severity, most likely translating the discontinuity of the lesions.

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NEW-ONSET DIABETES MELLITUS AFTER DIRECT ENDOSCOPIC NECROSECTOMY THROUGH EUS-GUIDED LAMS DRAINAGE: A PILOT STUDY

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KEYWORDS: walled-off necrosis (WON) – LAMS (lumen-apposing metal stent) – diabetes mellitus – endoscopic ultrasound.

BACKGROUND: Walled-off necrosis (WON) is a common complication of severe pancreatitis and patients with necrotizing pancreatitis have an increased risk of developing diabetes mellitus (DM). The endoscopic treatment of WON consists of transgastric necrosectomy after application of a lumen-apposing metal stent (LAMS).

AIM: to assess the frequency of new-onset DM after endoscopic drainage through LAMS using a Hot AxiosTM Stent Device if obstruction or infection of the WON is present.

METHODS: We included and retrospectively analyzed patients in one tertiary medical center who had developed WON after a severe episode of acute pancreatitis between October 2016 and April 2022. Necrosectomy was performed through application of LAMS with complete resolution of the WON. Blood glucose levels were monitored before endoscopic placement of the LAMS, one month and one year after its removal.

RESULTS: Of 50 included patients (male-to-female, 33:17; mean age, 60.06±11.54) with Hot Axios stent drainage of WON secondary to necrotizing pancreatitis, 24% (12 patients) had pre-existing DM. The follow-up of one year was available in 19 patients and 21% of these patients developed DM one year after the stent's endoscopic removal, while 31% had pre-existing DM (p=0.011, Fisher's test).

CONCLUSION: Our study showed that a small number of patients without DM prior to endoscopic drainage using a Hot Axios Stent Device developed DM one year after endoscopic removal of the stent. Considering the small group of patients, further multicenter prospective studies on this topic are needed to predict the risk of developing DM after drainage of WON using LAMS.

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IMPACT OF COVID-19 PANDEMIC ON IBD PATIENTS MANAGMENT

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KEYWORDS: COVID-19, pandemic, inflammatory bowel disease

AIM: to determine the impact of the COVID-19 pandemic on the management of inflammatory bowel disease (IBD) patients.

METHODS: we compared characteristics of IBD patients evaluated in the Gastroenterology Department, in two months of 2019 and two months of 2020. Study sheet: type of refferal (hospital admiossion or out patient), demographic data, activity and extent of the disease, number of new cases, type of treatment, proportion of colonoscopies, Clostridioides Difficile infection, history of SARS-CoV-2 infection.

RESULTS: The group from 2019 (group A) included 44 patients with UC and 18 patients with CD, and the group from 2020 (group B) - 57 patients with UC and 48 patients with CD. In both groups the number of admitted patients were significantly higher in the pre-pandemic period (UC - 80% vs 27%; CD - 83% vs 22%) but during the pandemic period the number of out patients were significantly higher (UC - 19% vs 73%). %; CD - 17% vs 79%). Severe activity was found only in patients with UC from group B. The number of patients evaluated by colonoscopy was higher, in both IBD from group B. During the pandemic, the number of newly diagnosed cases increased. The proportion of corticotherapy and biologics was higher in gropu B. Clostridioides Difficile infection was found only in patients with UC, especially group A. Also, only patients with UC had a history of SARS-CoV-2 infection (19.29%).

CONCLUSIONS: during the pandemic, the number of IBD patients increased significantly, the patients were younger and with more severe disease, especially those with CD. The proportion of out patients - admitted patients has been reversed. History of SARS-CoV-2 infection was found only in UC patients.
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GASTRO-ESOPHAGEAL REFLUX DISEASE AND COVID19 INFECTION- NEW CORRELATION?

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KEYWORDS: gastro-esophageal reflux, Covid 19

INTRODUCTION: One of the most frequent causes for addressing to a consultation in Gastroenterology Department are symptoms of gastro-esophageal disease (GERD). Unfortunately, during the first three months of 2021, the number of patients claiming an increased intensity of symptoms after Covid 19 infection seemed to be concerning.

MATERIAL AND METHODS: During 1st January-31st March 2021, from 500 patients addressed to an out-patient department, for a consultation concerning digestive symptoms, 110 patients had recent history of Covid 19 infection in the previous 3 months and had gastrointestinal symptoms, suggesting gastro-esophageal reflux disease. These symptoms included regurgitation, heartburn, and nausea. After excluding Helicobacter pylori infection, a number of 100 patients were studied for the course of their symptoms under treatment.
The inclusion criteria were: age above 18 years, symptoms absent before diagnosis of Covid 19 infection, follow up for 3 months after the 14 days of infectiousness, considered from the 1st day of a positive PCR SARS COV2 result.
For the 100 patients included, we used the GERDQ questionnaire to quantify the intensity of symptoms, at the first consultation and after 4 weeks of treatment.

RESULTS AND CONCLUSION: For 75 patients, the GERDQ scores where between 11 and 18 points, but were associated with extra-intestinal symptoms, such as mild dyspnea, persistent fatigue, myalgia.

The treatment for all patients included proton-pump inhibitors, antacids if needed and prokinetics. After one month of treatment, patients were asked to complete GERDQ questionnaire and we compared the two results. 50 patients had the same score as the initial one, which means that half of the included patients had no change or slight amelioration of symptoms under treatment. Although only 45 of patients accepted the upper-gastrointestinal endoscopy, we did not find significant lesions to support the intensity of symptoms.

There is a need for a continous evaluation for these patients, including gastroscopy, to find new elements to help us in treating them. There are further studies needed to prove a potential connection between symptoms of GERD and Covid 19 infection. Our major concern is to find the optimal way of treating patients in order to relieve the intensity of symptoms.

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PANCREATIC CANCER AND AUTOIMMUNE CONNECTIVE TISSUE DISEASE – TWO CASE REPORTS

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KEYWORDS: pancreatic cancer, paraneoplastic, autoimmune connective tissue disease

BACKGROUND / OBJECTIVES: We present two female patients with pancreatic cancer and autoimmune connective tissue disease diagnosed, treated and monitored at IC Fundeni. We aim to establish possible pathogenic links by taking into consideration genetic susceptibility, therapeutic implications and possible paraneoplastic syndromes.

METHODS: Two women were diagnosed with mixed collagenosis prior to the diagnosis of ductal pancreatic adenocarcinoma. We summarized the existent data in the literature regarding the autoimmune connective tissue paraneoplastic syndromes which occurred in patients with pancreatic cancer.

RESULTS: The first patient, a 66-years old woman, was diagnosed with mixed collagenosis 3 years before the diagnosis of pancreatic adenocarcinoma. The clinical features were similar to seronegative rheumatoid arthritis and systemic lupus erythematosus, also in the absence of an autoimmune diagnostic panel. The pancreatic tumor was detected at an early stage, following a routine ultrasound investigation, and its surgical resection determined the remission of joint and skin manifestations.

The second patient, a 68-years old woman, was diagnosed with morphorea more than 20 years before the diagnosis of pancreatic tumor. The disease was complicated by benign esophageal stenosis (2008) and treated with endoscopic dilations until 2017. In early 2021 she complained of epigastric pain, initially attributed to the esophageal stenosis. The abdominal CT scan revealed a pancreatic cephalic tumor. Due to

the pandemic situation, the surgery was delayed with negative outcome.

In rheumatic diseases, patients have an increased carcinogenic risk secondary to chronic inflammation or by malignant transformation promoted by immunosuppressives. Recent studies confirm the presence of genetic mutations (TNF, MMP9, PTGS2) in primary pancreatic tumoral cells, leading to various antigen expression and aberrant connective tissue immune response. A subset of patients develop cancer around the time that scleroderma clinically manifests, raising the question of cancer-induced autoimmunity. Typically, the onset of the autoimmune manifestation is at an older age that usual.

CONCLUSIONS: There are multiple links and triggers of malignancy that can be incriminated in Autoimmune Connective Tissue Diseases. Early recognition can lead to diagnose of the underlying neoplasm, in particular when paraneoplastic syndromes are involved.

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QUANTITATIVE ASSESSMENT OF CONTRAST ENHANCED ENDOSCOPIC ULTRASONOGRAPHY (CE-EUS) WASHOUT RATE IN PREDICTING MALIGNANCY IN PANCREATIC SOLID MASSES: A PILOT STUDY

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KEYWORDS: contrast enhanced endoscopic ultrasound (CE-EUS) – solid pancreatic tumor – chronic pancreatitis

BACKGROUND & AIM: Contrast enhanced endoscopic ultrasound (CE-EUS) is a sensitive method to evaluate pancreatic solid masses, with arterial hypoenhancement in adenocarcinomas and hyperenhancement in case of inflammatory masses or neuroendocrine tumors. However, the importance of venous wash-out has been less studied.

THE AIM: to evaluate the diagnostic role of CE-EUS wash-out rate in the early and late venous phase based on quantitative analysis.

METHODS: We prospectively analyzed patients from one center with solid pancreatic masses on CT scan who underwent conventional EUS followed by CE-EUS and EUS-fine needle aspiration. Quantitative parameters were generated by time-intensity curve analysis. A standardized region of interest inside the tumor was examined and the quantitative uptake of Sonovue was recorded. The analyzed parameters in the wash-out phase were: peak intensity between 25-30 seconds, uptake at 45 seconds – defined as early washout and uptake at 60 seconds – defined as late washout. The early and late washout rates were analyzed as a ratio compared to the peak and as decrease in absolute values on the time-intensity curve. The final diagnosis

was based on surgery or EUS tissue acquisition results and 6 months follow-up.

RESULTS: A total of 31 patients were included, 23 adenocarcinomas and 8 chronic pancreatitis patients. In adenocarcinomas the early wash-out was 80,3%±26,4% (absolute values -3,6±-7,1) and the late wash-out was 73±34,1% (absolute values: -6,9±-15,7), showing slow wash-out. In case of chronic pancreatitis, the early wash-out was 81,8±15,7% (absolute values: -7,4±-3,25) and late wash-out was 61,4±18,4% (absolute values: -15±6,16). There was no statistically significant difference between the adenocarcinomas and chronic pancreatitis group.

CONCLUSION: The washout rates between pancreatic adenocarcinoma and chronic pancreatitis were not different. The high standard deviation value at 60 seconds in the adenocarcinoma group shows the heterogeneity of the washout rate and further assessment based on different grading of adenocarcinoma is needed.

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RARE CASE OF SIGNET RING CELL APPENDICULAR ADENOCARCINOMA

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KEYWORDS: signet ring cell adenocarcinoma, appendix

INTRODUCTION: Primary adenocarcinoma of the appendix is a rare neoplasm, accounting 0.5% of all gastrointestinal neoplasms. Signet-ring cell adenocarcinoma of the appendix is extremely rare, being diagnosed in only 4% of all appendiceal neoplasms. It can mimic acute appendicitis, but in asymptomatic patients, these neoplasms can often be found incidentally

CASE REPORT: A 69 years old patient with history of hypertension, dyslipidemia and hemorrhoids, presented for a screening colonoscopy. The colonoscopy showed an abnormal appendiceal orifice with ulcerations, central necrosis, and elevated margins. Biopsies were taken, revealing a poorly differentiated signet ring cell adenocarcinoma of the appendix. A Computer tomography scan was performed, without revealing any metastases. The patient underwent surgery with right hemicolectomy and was referred to an oncologist.

RESULTS AND CONCLUSIONS: With the signet ring cell adenocarcinoma of the appendix being a rare neoplasm, this case report highlights the importance of inspecting the cecum and the appendiceal orifice at colonoscopy in diagnosing the appendiceal tumors.

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PREDICTIVE FACTORS FOR REBLEEDING IN VARICEAL UPPER GASTROINTESTINAL BLEEDING

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KEYWORDS: Rebleeding, Mortality, HDS

INTRODUCTION: Upper gastrointestinal bleeding (HDS) is a major public health problem and a major cause of morbidity and mortality. Patients surviving in the first episode of variceal hemorrhages are at risk of rebleeding of about 60% in the first year

MATERIALS AND METHODS: A retrospective study was performed on 128 patients with variceal upper gastrointestinal bleeding. In the evaluated group, the predictive factors for rebleeding studied were: personal history of upper gastrointestinal bleeding, low levels of hemoglobin at admission, elevated urea and creatinine at admission, presence of comorbidities, Child-Pugh class of cirrhosis, and presence of blood in the stomach.

RESULTS: The parameters that correlated with the unfavorable evolution of the hemorrhage (with the lack of hemostasis control) were the systolic blood pressure below 90 mmHg and the increased value of creatinine. There is a statistically significant association of the recurrence of hemorrhagic recurrence with the Child-Pugh class of cirrhosis. Patients with hepatic cirrhosis class Child-Pugh B (69%) and C (17%), especially compared to patients in class Child-Pugh A (14%), had hemorrhagic recurrence.

CONCLUSIONS: The only parameters that were statistically correlated with rebleeding were a history of upper gastrointestinal bleeding and Child-Pugh class of cirrhosis. Rebleeding was identified in 48 patients (37%).

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THE ROLE OF NLR IN THE EVOLUTION AND PROGNOSIS OF RECURRENT CHRONIC PANCREATITIS

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KEYWORDS: NLR, chronic pancreatitis, prognosis

INTRODUCTION: Chronic pancreatitis is a pathological entity with an increased incidence and prevalence that poses many problems of diagnosis and treatment due to the complex and incompletely elucidated pathophysiology. The neutrophil-lymphocyte ratio (NLR) has been proposed as a marker of prognostic inflammation in various diseases including chronic pancreatitis.

THE AIM of our study was to investigate the possible predictive value of NLR in patients diagnosed with recurrent chronic pancreatitis.

MATERIAL AND METHODS: The study was a prospective one, lasting 1 year between January and December 2021. Biological samples (whole peripheral blood) were obtained from patients admitted to the 2nd Internal Medicine Clinic of the Emergency County Clinical Hospital of Craiova. NLR was calculated from blood samples collected from patients diagnosed with recurrent chronic pancreatitis (n = 45) and patients without pancreatic pathology (n = 90).

RESULTS: The association of NLR was evaluated and corroborated with the clinical and paraclinical data of the patients included in the study. Patients with high NLR had an unfavorable overall clinical outcome.

CONCLUSION: Elevated NLR has been statistically significantly associated with an increased risk of developing recurrent chronic pancreatitis and may be an early independent predictor in patients with this condition.

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DONOR SCREENING FOR FECAL MICROBIOTA TRANSPLANTATION- RESULTS FROM THE PROCESS OF BUILDING THE FIRST ROMANIAN STOOL BANK

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KEYWORDS: fecal microbiota transplantation, donor screening, questionnaire

INTRODUCTION: Implementing fecal microbiota transplantation (FMT) and stool banking in a safe manner is demanding significant resources, considering the need for extensive donor screening. We present the preliminary results of the initial round of screening donors for building the first Romanian stool bank.

MATERIAL AND METHODS: We applied an extensive donor screening questionnaire including 71 items to third year medical students. The questionnaire was offered via an electronic platform and was designed following the current international recommendations and the Romanian guideline for implementing FMT.

RESULTS AND CONCLUSIONS: A total of 140 medical students in early year of study were invited to participate in the screening process. 64 volunteers were willing to participate and completed the screening questionnaire. A number of 8 volunteers(12,5%)

successfully passed the first screening stage, based on the results of the questionnaire. 56 volunteers (87,5%) were excluded at this stage, due to recent antibiotic intake (11 students), multiple allergies (9 volunteers), recent invasive procedures (5 volunteers). 23 volunteers were excluded due to chronic pathology- 9 cases involving the gastrointestinal tract, 3 with chronic viral hepatitis and 11- other non-digestive pathology. Potential COVID-19 related aspects lead to exclusion of 24 volunteers: 20 due to respiratory symptoms or fever at the completion of the questionnaire, 1 contact with a confirmed COVID-19 case in the past 14 days prior to filling in the questionnaire and 3 cases of documented SARS CoV- 2 infection in the past 3 months. Although the screening was initiated among young volunteers, in medical training, only 45,7% of the invited students accepted to participate. Moreover, the percentage of students who qualified for proceeding to the next screening phase was only 12,5%. Rigorous donor screening for FMT is challenging, but essential for obtaining proper material for stool banking and maximizing the safety of the final product.

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SARCOPENIA ASSESSMENT USING HANDGRIP STRENGH MEAUSREMENTS IN INFLAMMATORY BOWEL DISEASES

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KEYWORDS: inflammatory bowel disease, sarcopenia, handgrip strength

INTRODUCTION: Malnutrition and sarcopenia represent a major burden in inflammatory bowel diseases (IBD), increasing risk of morbidity and mortality. Our aim was to evaluate sarcopenia in acute IBD patients using handgrip strength (HGS) measurements.

MATERIALS AND METHODS: We analysed 25 patients hospitalized between January 2021 and Mars 2022 in Fundeni Clinical Institute, Bucharest, with ulcerative colitis (UC) or Crohn's disease (CD) flares that required biologic therapy initiation. 12 patients were revaluated at 6 months follow-up visit. Biological and clinical markers, anthropometric and HGS measurements were collected. HGS was measured using Jamar hydraulic hand dynamometer according to standard protocol and values were converted to Z scores corrected for age and gender, based on normative data. Sarcopenia cut-off points were <27kg for men and <16kg for women.

RESULTS AND CONCLUSIONS: The mean age was 37.32±10.9 years old and 52% were women. 56% of patients were diagnosed with UC and 44% with CD. 6.41±5.32 years elapsed from diagnosis. According to body mass index (BMI), 36% were underweight. 85% of participants reported 8±4.41kg weight loss in the past 3

months. Using HGS measurements, 20% of patients had Z score ≤-2 standard deviations (SD), 48% between -1 and -2 and 24% between 0 and -1. Sarcopenia was identified in 16% of patients. No correlations were found between sarcopenia and age, sex, disease duration, BMI, weight loss, previous therapy or biologic markers such as serum albumin, haemoglobin, C-reactive protein and faecal calprotectin. After 6 months of biologic therapy and clinical remission, significant weight gain (p=0.001) and HGS improvements (p=0.05) were reported.

CONCLUSION: weight loss and undernutrition are frequently reported during IBD flares and some patients develop sarcopenia. Clinical remission after 6 months of biologic therapy is associated with significant improvement of muscle strength and weight gain.

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SHEAR-WAVE ELASTOGRAPHY IN SOLID ANCREATIC LESIONS: A PILOT STUDY

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KEYWORDS: endoscopic ultrasound (EUS) – endoscopic ultrasound elastography (EUS-EG) – solid pancreatic tumor

BACKGROUND: Strain elastography histogram endoscopic ultrasound (SH) has been proved as a valuable supplement to endoscopic ultrasound (EUS) in assessing solid pancreatic lesions, with sensitivity of 98% and specificity of 63%. However, the value of newly available shear wave EUS elastography (EUS-SWM) has been disappointing in one retrospective study.

AIM: to assess the diagnostic value of SH and EUS-SWM in solid pancreatic lesions.

METHODS: Our prospective study was started in August 2021 in one tertiary medical center and we recruited patients with solid pancreatic masses> 2 cm in diameter at CT scan for EUS assessment first with strain histogram (SH) (3 measurements), followed by EUS-SWM (3 measurements with VsN>20). Patients with inconclusive pathology results were excluded. The final diagnosis was based on surgery or EUS tissue acquisition results.

RESULTS: 37 patients with solid pancreatic lesions were evaluated. The final diagnosis was 26 pancreatic adenocarcinomas, 2 neuroendocrine pancreatic tumours (NETs). Nine patients (24,32%) were excluded because of inconclusive biopsy results or other kind of lesions. The mean value of SH for pancreatic adenocarcinoma was 35,93 and for NETs 38,83 (p<0,05). The mean values of EUS-SWM were 45,86kPa for pancreatic adenocarcinomas and 20,59kPa (p<0,05).

CONCLUSION: In this prospective study we found a significant difference between SH and EUS-SWM in differentiating pancreatic adenocarcinomas and NETs. Semiquantitative assessment by strain ratio was higher in neuroendocrine tumors compared with pancreatic adenocarcinoma, which was discordant compared to the results of shear-wave. Further research is needed in this topic with a larger database in order to face the challenges in standardizing the EUS-SWM procedure in pancreatic lesions.

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ASSESSING THE RISK FOR DEVELOPING NON-ALCOHOLIC FATTY LIVER DISEASE AMONG PATIENTS WITH CROHN'S DISEASE

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KEYWORDS: non-alcoholic fatty liver disease, Crohn's disease, controlled attenuation parameter

BACKGROUND AND AIMS: Inflammatory bowel disease (IBD) is a pathology of the gastrointestinal tract in which Ulcerative Colitis and Crohn's Disease (CD) are the two major forms. Non-alcoholic fatty liver disease (NAFLD) is a common extraintestinal finding among IBD patients, and the link between these two pathologies is yet to be completely understood. The aim of this study was to assess the potential of CD, for being a risk factor in the development of NAFLD.

METHODS: In total, 48 UC patients and 75 healthy controls were enrolled between April 2021 to September 2021. The two groups had a body mass index < 30 kg/m2 and had no known history of type 2 diabetes or metabolic syndrome (MetS). Clinical features, biological parameters and anthropometric measurements were collected. Vibration-Controlled Transient Elastography with Controlled Attenuation Parameter (CAP) was used to diagnose NAFLD, with a cut-off for CAP score of 248 dB/m. Significant liver fibrosis was considered at a liver stiffness measurement (LSM) value of ≥ 7.0 kPa.

RESULTS: Of 48 UC patients, 19 (39.5%) were diagnosed with NAFLD with a mean CAP score of 255±27 dB/m vs. 231±39 dB/m (p=0.005) in the control group. Regarding LSM, there were 7 (36,8%) patients with at least significant liver fibrosis in the UC cohort. The multivariate analysis showed that patients with CD had a 2.6-fold higher risk for the presence of NAFLD [odds ratio: (OR)-2.6, 95%; confidence interval (CI) 2.32–8,9, p < 0.001]. In the UC group, liver steatosis was independently associated with older age (OR- 1.51; 95% CI, 1.22–2,31) and longer disease

duration (OR- 1.7; 95% CI, 2,3–5,72).

CONCLUSION: NAFLD is a consistent finding in CD patients. Liver steatosis can be present in this group of patients in the absence of classic risk factors like obesity and MetS, suggesting a more complex interaction between the two pathologies.

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THE CONTRAST-ENHANCED ENDOSCOPIC ULTRASOUND GUIDED FINE NEEDLE ASPIRATION UTILITY IN THE DIAGNOSIS OF PANCREATIC CYSTS

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KEYWORDS: CH-EUS(contrast-enhanced endoscopic ultrasound) – EUS-FNA (endoscopic ultrasound fine needle aspiration) – endoscopic ultrasound – pancreatic cyst – mural nodule

PURPOSE: Endoscopic ultrasound fine needle aspiration (EUS-FNA) cytology from an intracystic fluid is useful in differentiation of pancreatic cysts, with low sensitivity, which increases when the solid component is targeted. The results of contrast-enhanced guided EUS-FNA (CH-EUS-FNA) in the solid component are not known. We aimed to assess the diagnostic value of CH-EUS-FNA in enhanced mural nodules and discrimination between different cysts using contrast enhanced endoscopic ultrasound (CH-EUS).

MATERIAL AND METHODS: The prospective study recruited patients with pancreatic cysts with unclear diagnosis on transabdominal imaging. The CH-EUS was followed by CH-EUS-FNA towards the most enhanced part of the cysts. The final diagnosis was based on surgery or the correlation between clinical history, cross-sectional imaging, echoendoscopic morphology, cystic fluid analysis and follow-up.

RESULTS: Eighty- five patients with pancreatic cysts were evaluated. The mucinous cysts had wall arterial enhancement more often than non- mucinous cysts (p<0.0001), with 90.2% sensitivity and 70.6% specificity, but without importance for diagnosing malignancy. The CH-EUS-FNA from cystic fluid and mural nodules identified mucinous cysts and malignancy with 82.4% and 84.2% sensitivity and 92% and 100% specificity. Twenty-one cysts had solid components, and 13 were enhanced mural noduls with conclusive cytology in all cases and malignancy in 76.9%.

CONCLUSIONS: CH-EUS should be done in all PCN with solid component in order to avoid unnecessary EUS-FNA and to guide FNA for identification of malignant cyst. The wall enhancement helped to differentiate mucinous from non-mucinous cysts.

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THE ROLE OF CONTRAST-ENHANCED IMAGING TECHNIQUES IN DETERMINING THE SEVERITY OF ILEAL CROHN'S DISEASE

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KEYWORDS: Crohn's disease; gastrointestinal ultrasound ; MR-enterography

OBJECTIVES: Imaging techniques like gastrointestinal ultrasound (GIUS) and MR-enterography can be used as additional methods to colonoscopy for a complete assessment of Crohn's disease patients. The main advantage of GIUS is that it can be repeated whenever needed to monitor the patients' evolution. The aim of this study is to evaluate the severity of intestinal damage in patients with ileal Crohn's disease using GIUS and MR-enterography.

MATERIALS AND METHODS: The study included 12 patients with ileal Crohn's disease with a mean age of 38 years. Patients were assessed via GIUS + CEUS, using a Hitachi Arieta ultrasonography system with a 7.5 MHz linear transducer. The contrast agent used was SonoVue, 4,8 ml. The assessed parameters included: the thickness of the intestinal wall, parietal stratification, the presence of lymphnodes , color Doppler parameters. Using a dedicated software CEUS parameters were assessed: Peak enhancement (PE), Wash-in area under the curve (WiAUC), Rise time (RT), Mean transit time (MTT), Wash-in rate (WiR), etc. The MR-enterography was performed using a Philips Ingenia 3T device and for the quantification of severity we used the simplified MaRIA index.

RESULTS: The mean severity index (CDAI, respectively HBI-Harvey-Bradshaw Index) was 170.1 (STDEV 99.01) for CDAI and 6.5 (STDEV 3.84) for HBI. The parameters that were statistically correlated with the activity and severity of the disease assessed by CDAI and HBI are: thickening of the intestinal wall over 4 mm, the presence of Doppler signal at the level of intestinal wall

(Limberg classification) and enhancement parameters on CEUS. On GIUS, the average thickness of the terminal ileum wall was 6.55 mm (STDEV 1.20). The average for the Limberg score was 2 (STDEV 0.85) and for the simplified MaRIA score was 7.83 (STDEV 4.68). We found that there are correlations between GIUS parameters, MR-enterography parameters and the severity of the disease.

CONCLUSIONS: GIUS may be useful in assessing the severity of ileal Crohn's disease comparable to MR-enterography. MR-enterography seems to be superior to GIUS in detecting proximal stenosis of ileum.

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UPPER DIGESTIVE TRACT COMORBIDITIES FOUND IN HELICOBACTER PYLORI INFECTION

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KEYWORDS: H.Pylori, esophagitis, polyps

INTRODUCTION: Helicobacter Pylori, the most common bacterial infection in humans, is a major pathogen that causes chronic and progressive lesions of the gastric mucosa, etiologically associated with chronic gastritis, peptic ulcer, MALT lymphoma (marginal lymphoma associated with lymphoid tissue) and gastric cancer.

METHODS AND MATERIALS: Retrospective study conducted between 2019-2022, on a group of 315 patients diagnosed after digestive endoscopy and urease test, with positive H. Pylori (Helicobacter Pylori) gastritis. The study followed the association between these 2 entities and other diseases of the upper digestive tract: gastric ulcer, duodenal ulcer, gastric polyps, gastric cancer, esophagitis.

RESULTS AND CONCLUSIONS: Following the study, gastric ulcer was present in 29 of the cases (9.2%), duodenal ulcer in 28 patients (8.8%), gastric cancer in 26 cases (8.2%), gastric polyps (mostly hyperplastic) in 71 cases (22.5%) and esophagitis in 59 of the patients (19%).
Although studies on the role of H. pylori infection in ulcerogenesis and gastric carcinogenesis are numerous and consistent, much of the research is still contradictory regarding the relationship between H. pylori and esophagitis or other digestive pathologies,. Although in our study, esophagitis was among the most common comorbidities after gastric polyps, in most of the studies on the relationship of H. pylori with reflux esophagitis, the association is negative.
For this reason, more extensive, lengthy research is needed to confirm or disprove these possible asociations.

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PROFILE OF PATIENTS WHO INITIATED BIOLOGICAL THERAPY IN INFLAMMATORY BOWEL DISEASE - RETROSPECTIVE STUDY

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KEYWORDS: biological therapy, Ulcerative colitis, Crohn's disease

INTRODUCTION: Biological therapy has revolutionized the management of inflammatory bowel disease (IBD), changing its evolution and prognosis.

PURPOSE: Assessment of the clinical-evolutionary profile and the type of biological therapy initiated in a group of patients with IBD in a tertiary gastroenterology center.

MATERIALS AND METHODS: Retrospective study performed over a period of 4 years (January 2018-December 2021) which included patients with IBD in whom biological therapy was initiated. The following parameters were analyzed: demographic data, phenotype, extent and severity of IBD, surgical history, extraintestinal manifestations, type of biological therapy.

RESULTS: We studied 40 patients, 24 with ulcerative colitis (UC) (60%) and 16 with Crohn's disease (CD) (40%), with a mean age of 41 years (21-63), 28 females (70%). All patients had moderate (15 patients - 25% of UC and 56.2% of CD) and severe (25 patients - 75% with UC and 43.7% of CD) forms of the disease. Left colic extension predominated in patients with UC (62.5%); in CD, ileo-colonic localization (68.75%) and inflammatory phenotype (62.5%) were the most frequent. Biological therapy was initiated in 16 patients in 2018-2019 and in 24 patients in 2019-2020. Of these, 26 (65%) were in the first administration, the rest of 14 (25% - 3 with UC and 11 with CD) being at the second or third biological agent. Infliximab was initiated in 19 patients (14 with UC, 5 CD), Adalimumab in 13 patients (6 with UC, 7 with CD), Vedolizumab in 5 patients (4 with UC and 1 with CD) and Ustekinumab in 3 patients with CD . Regarding the new molecules, 7 out of 8 patients were tested for anti-TNF.

CONCLUSION: Anti-TNF agents remain the first line of therapy for moderate and severe forms of IBD. Vedolizumab and Ustekinumab were mostly used as second or third line of biologic therapy. The number of cases of IBD requiring biological therapy is increasing.

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Digestive functional disorders

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FEATURES OF PH IMPEDANCE DATA IN PATIENTS WITH ATYPICAL SYMPTOMS OF GERD

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KEYWORDS: GERD, atypical symptoms, pH-impedance

INTRODUCTION: GERD is difficult to be objectified in patients complaining of atypical symptoms.Ph-impedance evaluation brings most of the information in these cases, being able to completely exclude GERD a s a diagnosis but also in imposing invasive procedures in resolving the hidden disease.

MATERIAL&METHODS: Seventy eight patients with atypical symptoms of GERD(chest pain, globus, cough, ENT symptoms) were investigated with ph-impedance/24h. Sandhill/Sleuth Zephr was the system used for the investigation. The ph catheter was positioned 5 cm proximally to LES, based on the manometric findings. The investigated features were: demographic findings (age,sex), frequency of atypical symptoms as main symptom, deMEester score, Acid exposure time, number of reflux episodes (acid and nonacid), index for correlations between symptoms and reflux (SAI, SAP). The main diagnosis categories were: acid reflux disease, nonacid reflux disease, hypersensitive esophagus, functional dyspepsia.

REZULTATE. Seventy eight patients were evaluated (56.4% males), with median age 46.1 years (SD 13.5). The most frequent atypical main symptoms were chest pain (38.5%) and globus (15.7%). 41% of these patients associated typical symptoms of reflux.as a secondary symptom (heartburn 15.4%, regurgitation 25.6 %). GERD was diagnosed in 28.2% of cases, the most frequently encountered diagnosis were functional dyspepsia (38.5%) and hypersensitive esophagus (33.3%). GERD was mostly diagnosed in patients with chest pain and globus as the main complaining symptom (33.3%).

CONCLUSIONS: Ph-impedance monitoring is an useful investigation in evaluating patients with atypical symptoms of GERD, making the therapeutic decision targeted and correctly driven.

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PATIENTS WITH DEFECATION DISORDERS: ROLE OF HIGH RESOLUTION ANORECTAL MANOMETRY (HRAM)

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KEYWORDS: high resolution anorectal manometry, fecal incontinence, dyssinergia

BACKGROUND: HRAM is the gold standard investigation when evaluating patients with defecation disorders. It provides data that are useful in diagnosing different types of fecal incontinence (FI) , dyssnergia, proctalgia and Hirschprung disease, but also in pre and postoperatory evaluation of patients with rectal resections or in selecting patients suitable for biofeedback therapy.

METHODS: We retrospectively evaluated 120 patients with defecation disorders who performed HRAM between May 2017 - May 2022.

RESULTS: More than half of the patients presented for difficulty in evacuation of stool (55.83%). 59.8 % of them were diagnosed with dyssinergia. 25% complained of FI, out of which 58.33 % were found to have hypocontractility , 33.33 % hypotonicity and 8.33% had both. 20% of patients complained both of FI and difficulty in evacuation, the majority in this group meeting the criteria for dyssinergia (overflow FI).

CONCLUSION: HRAM is an useful method in detecting patients with defecation disorders and it should be used in conjunction with endoanal ultrasound and defecography for a proper diagnosis.

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PREVALENCE OF HELICOBACTER PYLORI AMONG DYSPEPTIC PATIENTS IN A TERTIARY CARE CENTER

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KEYWORDS: Helicobacter pylori, dyspepsia, prevalence

INTRODUCTION: Helicobacter pylori (HP) is one of the most quoted risk factors in upper gastrointestinal tract diseases. Recent data describes a falling in Helicobacter pylori prevalence rate in Romania in the last 30 years, although it is still one of the most common infections among patients (1). Our study aims to provide an updated clinical and epidemiological data of the current status of HP infection among dyspeptic patients in north-western Romania.

MATERIALS AND METHODS: We conducted a retrospective study using our tertiary care center's database in the Second Department of Internal Medicine, Emergency Clinical County Hospital, Cluj-Napoca, Romania from January 2019 to May 2022. We selected patients with dyspeptic symptoms which had indication for upper gastrointestinal endoscopy and were tested

for active HP infection using histopathologic examination or rapid urease test. Out of 820 upper gastrointestinal endoscopies, 715 matched the study's criteria.

RESULTS AND CONCLUSION Out of 715 patients, active HP infection was identified in 194 patients (27,13%). HP prevalence in men was 24,14% and 29,21% in women. Mean age at admission was 58,5±15.6 years old, distribution of age was between 18 and 90 years old. We confirmed the recent data that suggested HP prevalence in Romania as being lower compared to 30 years ago and also found lower rates of infection compared to those previously described in recent years. This decrease in prevalence in our region can be partially explained by the continuous development in socioeconomic status of the population. The infection rates described by our study are comparable to data shown by other studies in western Europe (2).

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THE ROLE OF ESOPHAGEAL MANOMETRY IN CHOOSING ENDOSCOPIC TREATMENT IN PATIENTS WITH ACHALASIA

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KEYWORDS: high resolution anorectal manometry, fecal incontinence, dyssinergia

INTRODUCTION: Esophageal manometry is essential for the endoscopic therapy choice in patients with achalasia but also for post-therapeutic follow-up, especially in patients treated by oral endoscopic myotomy (POEM).

OBIECTIVE: To asseses the importance of esophageal manometry in the therapeutic decision in clinical practice in patients with achalasia.

METHODS / METHODOLOGY: Between 01/2019-02/2022, the esophageal manometry was performed in 130 consecutive patients for various symptoms. We evaluated the patients diagnosed with achalasia, the type of achalasia, endoscopic treatment and post-therapeutic evolution.

RESULTS: From 130 evaluated patients, 79 (60.76%) patients were diagnosed with achalasia according to the Chicago classification. 37(46.83%) men, 69(53.16%) female. The average age was 52 years.
Achalasia type I: 31 patients (39.24%), mean integrated relaxation pressure (IRP) 53.92mmHg; type II: 38 patients (48%), mean IRP 57.50 mmHg; type III: 3 patients (3.79%), mean IRP 25.53mmHg. Non-concludente results in 7 patients (8.8%) with the suspicion of achalasia at onset.
Endoscopic treatment was performed in 70 patients (88.6%).
Endoscopic dilation: 61 patients (87.14%). Achalasia type I 26 patients (42.62%), mean 1.7 sessions (1-4); achalasia type II 33 patients (54.09%), mean 1.7 sessions (1-3) and achalasia type III 2 patients, mean 1 session.
POEM: 9 cases (12.85%): 5 patients (55.55%) with achalasia type I, mean IRP 62.94 mmHg, 4 patients (44.44%) with type II of achalasia, mean IRP 24.57 mmHg.
Follow-up at 3 months postPOEM by manometry was performed in 7 patients (77.77%). Mean IRP normalized in all patients (from 50.92 mmHg initially to 7.43 mmHg postPOEM). Achalasia type I: mean IRP significantly decreased from 62.94 mmHg to 10.26 mmHg; achalasia type II: initial IRP 24.57 mmHg decreased to 4.6 mmHg posprocedure.

CONCLUSIONS/ DISCUTIONS: The endoscopic treatment choice (dilation or POEM) was not influenced by the achalasia type. POEM is an effective therapeutic procedure with a significant reduction of IRP.

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Oral Presentation

OP 1

FEATURES OF PH IMPEDANCE DATA IN PATIENTS WITH ATYPICAL SYMPTOMS OF GERD

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KEYWORDS: GERD, atypical symptoms, pH-impedance

INTRODUCTION: GERD is difficult to be objectified in patients complaining of atypical symptoms.Ph-impedance evaluation brings most of the information in these cases, being able to completely exclude GERD a s a diagnosis but also in imposing invasive procedures in resolving the hidden disease.

MATERIAL&METHODS: Seventy eight patients with atypical symptoms of GERD(chest pain, globus, cough, ENT symptoms) were investigated with ph-impedance/24h. Sandhill/Sleuth Zephr was the system used for the investigation. The ph catheter was positioned 5 cm proximally to LES, based on the manometric findings. The investigated features were: demographic findings (age,sex), frequency of atypical symptoms as main symptom, deMEester score, Acid exposure time, number of reflux episodes (acid and nonacid), index for correlations between symptoms and reflux (SAI, SAP). The main diagnosis categories were: acid reflux disease, nonacid reflux disease, hypersensitive esophagus, functional dyspepsia.

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CONCLUSIONS: Ph-impedance monitoring is an useful investigation in evaluating patients with atypical symptoms of GERD, making the therapeutic decision targeted and correctly driven.

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OP 2

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CONCLUSION: HRAM is an useful method in detecting patients with defecation disorders and it should be used in conjunction with endoanal ultrasound and defecography for a proper diagnosis.

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OP 3

PREVALENCE OF HELICOBACTER PYLORI AMONG DYSPEPTIC PATIENTS IN A TERTIARY CARE CENTER

Ioana Ş. Deac[2], Adriana M. Ofrim[2], Radu A. Fărcaș[2], Simona Grad[1,2], Cosmin Grad[2], Dan L. Dumitrașcu[1,2]

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2.2nd Dept. of Internal Medicine, Emergency Clinical County Hospital, Cluj-Napoca, Romania

KEYWORDS: Helicobacter pylori, dyspepsia, prevalence

INTRODUCTION: Helicobacter pylori (HP) is one of the most quoted risk factors in upper gastrointestinal tract diseases. Recent data describes a falling in Helicobacter pylori prevalence rate in Romania in the last 30 years, although it is still one of the most common infections among patients (1). Our study aims to provide an updated clinical and epidemiological data of the current status of HP infection among dyspeptic patients in north-western Romania.

MATERIALS AND METHODS: We conducted a retrospective study using our tertiary care center's database in the Second Department of Internal Medicine, Emergency Clinical County Hospital, Cluj-Napoca, Romania from January 2019 to May 2022. We selected patients with dyspeptic symptoms which had indication for upper gastrointestinal endoscopy and were tested for active HP infection using histopathologic examination or rapid

urease test. Out of 820 upper gastrointestinal endoscopies, 715 matched the study's criteria.

RESULTS AND CONCLUSION: Out of 715 patients, active HP infection was identified in 194 patients (27,13%). HP prevalence in men was 24,14% and 29,21% in women. Mean age at admission was 58,5±15.6 years old, distribution of age was between 18 and 90 years old. We confirmed the recent data that suggested HP prevalence in Romania as being lower compared to 30 years ago and also found lower rates of infection compared to those previously described in recent years. This decrease in prevalence in our region can be partially explained by the continuous development in socioeconomic status of the population. The infection rates described by our study are comparable to data shown by other studies in western Europe (2).

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OP 4
LIVER STIFFNESS MEASUREMENT BY FIBROSCAN® – PREDICTOR OF MORTALITY IN PATIENTS WITH AL AMYLOIDOSIS

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INTRODUCTION: Many patients with systemic amyloidosis are underdiagnosed and approximately 25% of patients with immunoglobulin light chain (AL) amyloidosis die within 6 months of diagnosis. AL amyloidosis affects mainly kidney and heart, but any organ can be involved.

AIM: The aim of our study was to determine a clinical profile of patients diagnosed with AL amyloidosis in our hospital evaluated by a multidisciplinary team, as well as to establish the main predictors of death in systemic AL amyloidosis. Area under the ROC curve (AUC) with the corresponding 95% confidence intervals, sensitivity (SE), specificity (SP), positive (PPV) and negative (NPV) predictive values, positive likelihood ratios (LR+) were calculated.

METHODS: The Cox proportional hazards model was used to assess overall survival of patients with AL and to identify independent predictors of death in this cohort of patients.
RESULTS: One hundred and one AL patients admitted to the Department of Hematology, Fundeni Clinical Institute were enrolled in the study (56.4% males, median age 61.1 years, liver involvement present in 51.5%. Multivariate Cox regression analysis identified the following independent predictors of death: hepatic AL amyloidosis (p=0.001), orthostatic hypotension (p=0.001) and lack of administration of CyBorD (p=0.007). A cut-off value >21.5kPa of liver stiffness evaluated by Fibroscan® presented an AUC of 0.81, SE 61.2%, SP 88.5%, LR (+) of 5.31, PPV 83.3% and NPV 70.8% for prediction of liver AL amyloidosis. Mean survival in patients with liver stiffness >21.5 kPa was 22.3±5.2months compared to patients with AL and liver stiffness <21.5 kPa and a mean survival time of 52.2±6.9 months, p=0.002.

CONCLUSION: LS > 21.5kPa is suggestive of AL hepatic disease and predicts significantly lower overall survival in these patients.

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OP 5
THE ROLE OF ESOPHAGEAL MANOMETRY IN CHOOSING ENDOSCOPIC TREATMENT IN PATIENTS WITH ACHALASIA

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INTRODUCTION: Esophageal manometry is essential for the endoscopic therapy choice in patients with achalasia but also for post-therapeutic follow-up, especially in patients treated by oral endoscopic myotomy (POEM).

OBIECTIVE: To asseses the importance of esophageal manometry in the therapeutic decision in clinical practice in patients with achalasia.

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CONCLUSIONS/ DISCUTIONS: The endoscopic treatment choice (dilation or POEM) was not influenced by the achalasia type. POEM is an effective therapeutic procedure with a significant reduction of IRP.

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OP 6

DIAGNOSTIC AND PROGNOSTIC VALUE OF PRESEPSIN IN LIVER CIRRHOSIS AND SEPSIS: A PROSPECTIVE OBSERVATIONAL STUDY ACCORDING TO THE SEPSIS-3 DEFINITIONS

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KEYWORDS: liver cirrhosis; presepsin, infections

INTRODUCTION: Infections complicated with sepsis have a high prevalence in liver cirrhosis, and early recognition of sepsis could be challenging in these patients. We investigated the diagnostic and prognostic value of presepsin among patients with liver cirrhosis, according to the Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3).

MATERIAL AND METHODS: This prospective observational study included 120 patients divided into three groups: decompensated liver cirrhosis (n=40), sepsis (n=40), and septic shock (n=40). Optimal cut-off values of presepsin to discriminate between the three groups were evaluated using receiver operating characteristic curve analysis. Cox proportional hazards model was performed to determine the risk factors for 30-day mortality, after we established the presepsin level cut-off.

RESULTS: Presepsin levels were significantly higher in sepsis than in decompensated liver cirrhosis cases (p<0.001) and significantly higher in patients with septic shock than in those with sepsis (p=0.002). The optimal cut-off value of the presepsin level to discriminate between sepsis and decompensated liver cirrhosis was 885 pg/mL (p<0.001) and between sepsis and septic shock was 2505 pg/mL (p<0.001). The optimal cut-off value of the presepsin level for predicting the 30-day mortality was 1085 pg/mL (p=0.005) for patients with sepsis. Patients with higher presepsin levels (≥1085 pg/mL) had significantly higher mortality rates than those with lower presepsin levels (<1085 pg/mL) (p=0.004). In the multivariate Cox proportional hazards model, presepsin could predict the 30-day mortality in sepsis cases (p=0.042).

CONCLUSIONS: Presepsin levels could effectively diagnose sepsis in patients with decompensated liver cirrhosis, and could help clinicians identify patients with sepsis with poor prognosis. Presepsin was an independent risk factor for 30-day mortality among cirrhotic patients with sepsis and septic shock.

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OP 7

VARICEAL BAND LIGATION VERSUS BETA BLOCKERS FOR PRIMARY PREVENTION OF VARICEAL BLEEDING: AN UPDATED META –ANALYSIS

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KEYWORDS: Variceal band ligation (VBL), bleeding, beta-blockers (BB).

BACKGROUND: Variceal band ligation (VBL) can reduce the rate of the first variceal bleed by 45-52% compared with beta-blockers (BB).An updated meta-analysis was performed incorporating 9 peer-reviewed randomized controlled trials.

METHODS: Relative risk (RR) using a fixed effects model was utilized. Sensitivity analysis using a random effects model was performed to assess consistency of results.

RESULTS: 734 patients were studied (356,VBL;378,BB).The pooled RR significantly favored VBL for the first variceal bleed (0.61;95% CI,0.44-0.84) with the NNT of 11   (95% CI , 7-33), and for adverse events with treatment withdrawal(0.20;95%CI, 0.10-0.39) with the NNT of 9 (95% CI, 7-33). There was a trend towards reduced bleeding deaths with VBL (RR, 0.65; 95%ci, 0.35-1.18) There was no evidence of differences in overall mortality. There was no significant heterogeneity or publication bias, and outcomes were robust following sensitivity analysis.

CONCLUSIONS: VBL was superior to BB for preventing the first variceal bleed and resulted in fever adverse events.VBL has a role in patients unlike to comply with drug therapy, or unable to tolerate /bleed on BB therapy.

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OP 8

UNDERREPORTING OF NONALCOHOLIC FATTY LIVER DISEASE IN DIABETIC PATIENTS WITH POORLY GLYCAEMIC CONTROL

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KEYWORDS: type 2 diabetes mellitus, NAFLD, haemoglobin A1c

BACKGROUND: Patients with type 2 diabetes mellitus (T2DM) have an increased risk for developing nonalcoholic fatty liver disease (NAFLD). Moreover, poor glycaemic control is associated with progression to advanced liver disease among NAFLD patients. The aim of this study was to evaluate the relationship between glycaemic control and NAFLD in T2DM patients.

MATERIAL AND METHODS: A total of 114 patients with T2DM were prospectively enrolled and were evaluated using Vibration-Controlled Transient Elastography (VCTE) with Controlled Attenuation Parameter (CAP) from June 2021 to December 2021. The presence of NAFLD was established using a cut-off value for CAP of 248 dB/m. Clinical features and laboratory data including glycated haemoglobin (HbA1c) were recorded in all patients. Subjects were stratified in two groups according to their HbA1c levels.

RESULTS: Seventy-six patients (66.6%) had HbA1c levels greater than 7 % (60.4% females, mean age of 56.15±10.42 years, mean BMI 26.73 ± 7.49 kg/m2). Among them, 54 (71%) were diagnosed with NAFLD and 28 (51.8%) patients had severe steatosis. Regarding patients with good glycaemic control, 14 (36.8%) of them had CAP score ≥ 248 dB/m. In group with poor glycaemic control, CAP score was positively correlated with waist to hip ratio (WHR) (r = 0.321, p = 0.043), body mass index (BMI) (r = 0.214, p < 0.026), fasting plasma glucose (r = 0.409, p = 0.012) and levels of triglycerides (r = 0.304, p = 0.038). There were significant statistical differences for alanine aminotransferase (ALT) (p = 0.01) in patients with liver steatosis and poor glycaemic control comparing with those with HbA1c < 7 %.

CONCLUSION: Poorly controlled T2DM is associated with high prevalence of NAFLD, and this fact is underrecognized despite of risk of progressive liver disease. Therefore, it is important to develop screening strategies to identify patients with poorly glycaemic control, NAFLD and its complications.

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OP 9

EPIDEMIOLOGY OF CHRONIC VIRAL HEPATITIS B/D AND C IN THE VULNERABLE POPULATION IN THE NORTH-EAST AND SOUTH-EAST REGIONS OF ROMANIA – INTERMEDIATE STAGE RESULTS IN THE LIVE(RO)2 - EAST SCREENING

Anca Trifan[1,2], Laura Huiban[1,2], R. Nastasa[1,2], S. Zenovia[1,2], R. Stafie[1,2], Ermina Stratina[1,2], A. Rotaru[1,2], Ana Maria Sîngeap[1,2], Camelia Cojocariu[1,2], C. Sfarti[1,2], Irina Gîrleanu[1,2], S. Chiriac[1,2], T. Cuciureanu[1,2], Mihaela Dimache[1,2], Carmen Anton[1,2], Cristina Muzîca[1,2], Mihaela Moscalu[1], Carol Stanciu[1,2]

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2."St. Spiridon" Emergency Hospital, Institute of Gastroenterology and Hepatology, Iasi, Romania

KEYWORDS: chronic viral hepatitis, epidemiology, vulnerable population

INTRODUCTION: In order to meet the requirements of the WHO, namely - the eradication of viral hepatitis by 2030, UMF "Grigore T. Popa" from Iasi together with ARAS and the Hospital "St. Spiridon" from Iasi, carries out since 2020 the project "LIVE(RO) 2 - Integrated regional program for prevention, early detection (screening), diagnosis and targeting treatment of patients with chronic liver disease secondary to viral infections with liver viruses B/D and C in the North-East and South-East regions". This study aimed to assess the epidemiological characteristics of the vulnerable population in the eastern part of the country diagnosed with chronic B/D and C viral infection.

MATERIALS AND METHODS: Between July 2021 and May 2022, we performed a prospective screening of chronic viral hepatitis B/D and C in vulnerable people in the counties of North-East and South-East of Romania, within the national program LIVE(RO) 2 - EST. Rapid diagnostic tests were used to detect HBs antigen (HBsAg) and anti-HCV antibodies (HCVA): HBV (Wama Immuno-Rapid HBV®) and HCV (Wama Immuno-Rapid HCV®). Rapid test-positive patients were tested for HBV DNA and HCV RNA and those eligible under the national protocol were treated with antivirals.

RESULTS: The study included 55593 individuals tested rapidly, of which 2160 (3.8%) patients were tested positive (1120 women, 1040 men, mean age 55.86 ± 6.023 years, predominantly rural background - 76.19%). Of these, 1077 (49.8%) were HBsAg positive, 918 (42.5%) with HCV positive needle, 37 (1.7%) HBV/HCV coinfection and 128 (5.9%) HBV/VHD coinfection. HBV-DNA was performed in 724 (67.3%) individuals, of which 452 (62.5%) subjects > 2,000 children/ml. Also, 518 (54.3%) patients with HCV-positive Ac had detectable HCV RNA, of which 375 (72.3%) received antiviral treatment. Depending on the ethnicity, the prevalence of viral infection was 4.29% in Roma people and 3.23% in Romanian people. Among the vulnerable groups determined by work, inactive people (27.7%), uninsured people (11.2%), unskilled people (1.87%), unemployed people (0.6%) and people working in agriculture (0.59%) were predominantly tested. Among the special vulnerable groups, people with disabilities (3.99%), people addicted to alcohol (2.43%) and people with a

minimum income (1.21%) were predominantly tested.

CONCLUSIONS: The high prevalence of B / D and C viral infection in the vulnerable population tested in the North-East and South-East Region of Romania compared to the rest of the population, indicates the significant viral spread of the infection in these people, a condition that requires further testing and the need for policies. public health in vulnerable groups to promote access to existing health services and early initiation of optimal antiviral treatment.

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OP 10

COMORBIDITY ASSESSMENT IN THE VULNERABLE POPULATION DIAGNOSED WITH CHRONIC B/D AND C VIRAL INFECTION FROM THE NORTHEAST REGION OF ROMANIA – STAGE SCREENING RESULTS LIVE(RO) 2 – EAST

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KEYWORDS: Gchronic viral hepatitis, comorbidities, vulnerable population

INTRODUCTION: Chronic viral hepatitis B/D and C can be complicated by comorbid conditions that may influence treatment eligibility and outcomes. The aim of this study was to evaluate the presence of the most common comorbidities in patients diagnosed with chronic viral B/D and C infection using rapid diagnostic tests (TDR).

MATERIALS AND METHODS: Between July 2021 and May 2022, we performed prospective screening for chronic viral B/D and C infection in people in vulnerable groups (poor, uninsured, rural people, people in foster care, people without shelter, Roma people, people with disabilities, people suffering from alcohol and drug addiction) from different areas of North-Eastern Romania, during the national program for the elimination of viral hepatitis LIVE(RO) 2-EST using TDRs for hepatitis B virus (Wama Immuno-Rapid HBV®) and hepatitis C virus (Wama Immuno-Rapid HCV®). We also investigated the presence of comorbid conditions in patients tested positive and presented at the Institute of Gastroenterology and Hepatology in Iasi for the staging of liver disease and the establishment of antiviral treatment.

RESULTS: Our study included 1176 patients who came to a tertiary center for the staging of liver disease, of which 422 men (35.8%) and 754 women (64.1%), aged 35 to 83 years, with an average age of 56.32 years. The predominant source of origin was rural (73.1%). Of the patients with positive TDR, 635 (53.9%) of patients were detected with HBsAg, 521 (44.3%) of patients with anti-HCV antibodies, and 20 (1.7%) of patients with anti-HVD antibodies. Of these, 646 patients (54.9%) had at least one comorbid condition. The most common comorbidities were cardiovascular disease (21.5%), psychiatric disorders (11.5%), type 2 diabetes (8.9%), metabolic disorders (6%), thyroid disorders (5%) and cancer (2%). In addition, the presence of comorbidities was higher among patients with HCV infection than in those with HBV infection (64.9% vs. 48.5%, p = 0.014), while psychiatric disorders were most common in patients with HBV/HVD coinfection (42.3%), most likely due to the Interferon regimen that has been administered in the past to 19 individuals.

CONCLUSIONS: Patients with chronic viral hepatitis B/D and C had a high prevalence of multiple comorbidities. Effective strategies are needed to manage these comorbid conditions as well as interdisciplinary collaboration to allow greater access to antiviral treatment and to reduce the future burden of advanced liver disease and its manifestations.

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OP 11

POINT SHEARWAVE ELASTOGRAPHY TECHNIQUES FOR THE ASSESSMENT OF LIVER STIFFNESS

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KEYWORDS: liver stiffness measurements, pSWE, Auto pSWE

BACKGROUND: Non-invasive ultrasound-based techniques for liver stiffness assessment (LSM) were developed as an alternative to liver biopsy. Transient Elastography (TE) is the first method validated by several guidelines and recentlyother new methods were developed. The aimof this study was to evaluate the performance of two pointShear Waves Elastography (pSWE) techniques implemented in the same ultrasound system for liver stiffness assessment, using TE as reference.

MATERIALS AND METHODS: A prospective study was conducted, in which 271 consecutive patients with or without previously diagnosed liver disease were included.
LSM was evaluated by point Shear Wave Elastography (pSWEand AutopSWE) implemented on a Siemens ACUSON Sequoia system (Deep Abdominal Transducer-DAX) and by TE, using a FibroScan Compact M 530 system (M and XL probes).
For AutopSWE, 15 measurements/values are automatically

obtained in a singleevaluation and the median and IQR aredisplayed. For p-SWEand TE, reliable measurements were defined as the median value of 10 measurements and IQR/M<0.3 for all probes. For significant fibrosis, a cut-off value byTE of 7 kPa was used, and for liver cirrhosis 12 kPa[1].

RESULTS: Valid LSM were obtained in all 271(100%) patients using both elastographic methods. A very good positive correlation was found between the LS values obtained by TE and bothAuto pSWEand pSWE: r=0.78, p<0.0001; and between Auto pSWEand p-SWE: r=0.92, p<0.0001. The best pSWE and Auto pSWEcut-off value for significant fibrosis (F≥2) was 5.1 kPa (p-SWE: AUC- 0.81; Se-58.3%; Sp-94.6%; PPV-83.1%; NPV-83.5%; Auto pSWE: AUC- 0.82; Se-63.1%; Sp-90.4%; PPV-76.8%; NPV-84.4%) and for liver cirrhosis (F4) was 6.7 kPa (p-SWE: AUC- 0.92; Se-73.8%; Sp-94.3%; PPV-83.8%; NPV-95.3%; Auto pSWE: AUC-0.93; Se-78.5%; Sp-97.8%; PPV-86.8%; NPV-96.1%).

CONCLUSION: The two techniques, pSWE and Auto pSWE have very good correlations with TE and similar performance for predicting significant fibrosis and liver cirrhosis in a mixed cohort of patients.

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OP 12
COMPARISON BETWEEN TWO 2D-SWE TECHNIQUES USING TRANSIENT ELASTOGRAPHY AS A REFERENCE METHOD FOR LIVER STIFFNESS ASSESSMENT

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KEYWORDS: liver stiffness measurements, 2D-SWE tehniques, fibrosis stages

BACKGROUND: Ultrasound-based liver elastography techniques are non-invasive methods used for the assessment of liver stiffness (LS). In addition to Transient Elastography (TE), new methods were developed. Aim: to compare the performance of 2D-SWE technique implemented on two different ultrasound probes from different vendors for the assessment of liver stiffness measurements (LSM) using transient elastography (TE) as reference method.

MATERIAL AND METHODS: A prospective study was conducted in which LSM were performed in 201 consecutive patients with or without chronic liver disease, evaluated in the same session by 2D-SWE and TE implemented on the following systems:

Siemens ACUSON Sequoia (5C-1 convex transducer and Deep Abdominal Transducer-DAX), Aixplorer Mach 30 (C2-1X convex transducer) and FibroScan Compact M 530 (M and XL probes). Reliable measurements were defined as the median value of 10 measurements and an IQR/M<0.3. For significant fibrosis a cut-off value for TE of 7 kPa was used, for advanced fibrosis 9.5 kPa and for liver cirrhosis 12 kPa.

RESULTS: From 201 patients, 198 patients had reliable measurements in all techniques and were included in the final analysis, mean age 54.8±13.3 years, mean BMI28.8 ± 5.0, 58% (116/198)men. 58.5% were without or with mild fibrosis, 14.1% had significant fibrosis, 6.2% had advanced fibrosis and 21.2% had liver cirrhosis. For significant fibrosis the performance was slightly better for 2D-SWE.SSI (AUROC=0.89, p<0.0001, >7.3 kPa, Se=85.1%, Sp=87.9%)followed by 2D-SWE.5C1 (AUROC=0.79, p<0.0001, >6.9 kPa, Se=33.7%, Sp=96.7%) and 2D-SWE.DAX (AUROC=0.78, p<0.0001, >6.3 kPa, Se= 36.4%, Sp=96.7%), p=0.01. For advanced fibrosis the best performance was slightly better by 2D-SWE.SSI (AUROC=0.92, p<0.0001, >8.8 kPa, Se=92.5%, Sp=91.9%), and by 2D-SWE.DAX (AUROC=0.86, p<0.0001, >7.6 kPa, Se= 38.8%, Sp=99.3%), followed by 2D-SWE.5C1 (AUROC=0.84, p<0.0001, >8.6 kPa, Se=38.8%, Sp=96.5%), p=0.02. For liver cirrhosis the performances were similar: 2D-SWE. SSI (AUROC=0.91, p<0.0001, >10.3 kPa, Se=92.8%, Sp=90.3%), followed by 2D-SWE.DAX (AUROC=0.90, p<0.0001, >10 kPa, Se= 23.8%, Sp=98.7%) and 2D-SWE.5C1 (AUROC=0.84, p<0.0001, >9.9 kPa, Se=33.3%, Sp=96.7%), p=0.10.The cut off values for predicting different stages of fibrosis ranged from 6.3-7.3 kPa for F2, 7.6-8.8 kPa for F3 and 9.9-10.3 for F4.

CONCLUSION: The performance of the evaluated 2D SWE techniques for liver fibrosis assessment was similar.

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OP13
POTENTIAL BIOMARKERS FOR DIFFERENTIATING ALCOHOLIC HEPATITIS FROM DECOMPENSATED CIRRHOSIS BY SERUM METABOLOMIC ANALYSIS

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BACKGROUND AND AIMS: Patients with alcoholic hepatitis (AH) have a high risk of short-term mortality. The diagnosis of AH relies on clinical and biochemical parameters, but it is impossible to differentiate from alcoholic related decompensated cirrhosis (ArDC) without liver biopsy. The main objective of this study was to assess the metabolomic fingerprint of AH; Secondary objective was to identify potential biomarkers to differentiate between the

AH and ArDC.

METHOD: We performed an untargeted metabolomic profiling of blood serum from 34 patients with biopsy proven AH and 36 patients with ArDC, using high performance liquid chromatography and mass spectrometry. More than 300 metabolites were identified; Eighty-three molecules were selected for further analysis and the most significant biomolecules were selected to discriminate the AH versus ArDC phenotype and infection status.

RESULTS: Seventy-two percent of patients were male and 97% of them had cirrhosis. The main molecules that showed increased levels in AH group comparative to ArDC group were C16 Sphinganine-1-phosphate (S1P), Prostaglandin F1a/b (PGF1a/b), Cerotic acid and arachidic acid while Prostaglandin D2/E2 (PGD2/E2), Prostaglandin E2-ethanolamide (PGE2-EA), dinor cholic acid, 12-ketodeoxycholic acid 2-hydroxy stearic acid, D-Sphingosine decreased (1a).
In the multivariate analysis, PLSDA score plot showed a co-variance of 19.4%, with a good discrimination between AH and ArDC groups (figure 1b)
In the subgroup analysis, (infected AH and ArDC and non-infected AH and ArDC), a good discrimination was showed by S1P, with a p value = 1.49E-15, Mean Decrease Accuracy (MDA) >0.035 and an area value under ROC curve (AUC) of 0.984 (0.943-1) and PGD2/E2, which had a decreased level (p = 2.56E-1, MDA >0.025 and AUC 0.958 (0.898-0.994)) (Figure 1c,d). The semiquantitative analysis of the combination between S1P&PGE2 showed increased (95%) diagnostic accuracy to discriminate AH from ArDC, with 100% NPV and 100% Se.
In the AH group (n=34), overall mortality (during a median follow-up of 42 months) was 50%, while 1 month mortality was 12%. Half of the patients were treated with Corticosteroids, 76% of them being responders, as per Lille score at 7 days.
PLSDA score plot showed a moderate discrimination between patients who survived and those who died. Nevertheless, based on the VIP scores 10 molecules were identified, among which Oleamide and Ursodeoxicolic acid (OAMD and AUDC, both decreased in the deceased group) showed MDA values > 0.0045 and AUC of 0.746 (p=0.005 and 0.01, respectively). In the semiquantitative analysis, AUDC was correlated with both MELD and Maddrey scores (r=-0.385, p=0.05, and r=-0.540, p=0.006, respectively) and showed an association with biopsy proven canalicular cholestasis (chi2 test = 5.83, p=0.016, Fischer exact test =0.05). OAMD was only associated with hepatic cholestasis (chi2 test = 5.18, p=0.023, Fischer exact test =0.045). None of the compounds were associated with either fibrosis, steatosis, ballooning, inflammation, neutrophil infiltration, or megamitochondria. Based on AUC analysis, cutoff values for both OAMD and AUDC were calculated (<18.6 arbitrary units (AU), and <15 AU) which had an accuracy of 77.27% and 66.7%, respectively to predict overall mortality (Kaplan-Mayer log rank values 0.053, and 0.035, respectively). Notably, the NPV for AUDC predicting mortality was 100%.

CONCLUSION: Sphingolipids are now known to regulate important physiological cellular processes (1). Especially, S1P has anti-necrotic and anti-inflammatory effects via TNF-a signaling pathway; In an ischemia/reperfusion (I/R) model, plasma S1P levels were noted to be decreased after hepatic I/R injury (2). Prostaglandins have protective effects by inhibiting the generation of reactive oxygen species and regulating the production of inflammatory cytokines. In this study, the prostaglandin levels were decreased in patients with AH showing that beta-oxidation could be a valuable target pathway.
Oleamide, and especially AUDC are promising potential biomarkers to predict poor outcome in patients with severe AH. Further studies are needed to confirm this hypothesis.

OP 14

HEPATITIS DELTA – ONE OF THE BIGGEST HEALTHCARE CHALLENGES IN ROMANIAN POPULATION

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KEYWORDS: hepatitis delta, epidemiology, risk factors

INTRODUCTION: Hepatitis delta is the most severe form of chronic hepatitis, which progresses rapidly to cirrhosis and hepatocellular carcinoma. In Romania, HBV and HDV coinfection represents a major public health problem with a high prevalence among HBV chronic hepatitis and still the leading indication for liver transplantation.

METHODS: This is a prospective study conducted for 4 months in our tertiary hepatology centre. All patients admitted with HBV+HDV infection were included. Sociodemographic data and risk factors for HBV+HDV infection were collected via a questionnaire. Additionally, disease stage, complications and severity (MELD-Na score) were evaluated.

RESULTS: From a total number of 113 patients included, 53.1% were males, with a mean age of 48.5+/-11.4, with 71.4% from urban area and 39.3% with higher education. On admission, 42.5% had chronic hepatitis, 36.3% had compensated cirrhosis and 21.2% had decompensated cirrhosis. The most frequent complications of cirrhosis were upper gastrointestinal bleeding (31.4%), infections (31.4%) and portal vein thrombosis (22.9%). 31.3% of the subjects were listed for liver transplant and 34.3 % of the patients posttransplant. Mean MELD Na was 13.3+/-6. Detectable HBV DNA and HDV RNA were found in 48.8% and 87.3% of the subjects. On presentation, 35.4% of the patients were already on entecavir/tenofovir and 55.4% of the patients had previous treatment with PegIFN. The most frequent risk factors for HBV+HDV infection were: frequent hospitalisations (92.5%), surgical interventions (71.7%), lack of anti-HBV vaccination (79.2%), blood transfusions (30.2%) and multiple sexual partners (30.2%).

CONCLUSIONS: The majority of patients presented with chronic hepatitis and compensated cirrhosis, thus gaining access to the new emerging therapies would be a major step further in order to try to prevent disease progression and complications of cirrhosis. The identified risk factors reemphasize the need for HBV immunization for the whole population, as well as the need for screening programs.

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OP 15
PREDICTIVE EVOLUTIONARY FACTORS FOR THE PROGNOSIS OF ALCOHOLIC CIRROSIS

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KEYWORDS: alcoholic liver cirrhosis, mortality, prediction

INTRODUCTION: Alcoholic cirrhosis (AC) is a disease with multiple complications, associated with poor prognosis and significant mortality. Identifying risk factors is important to ensure effective treatment and increase life expectancy. We aimed to evaluate the predictive role of complications for mortality in AC.

MATERIAL AND METHOD: We retrospectively analyzed 1429 patients with alcoholic cirrhosis hospitalized between January 2019 and April 2022 in the Institute of Gastroenterology and Hepatology Iasi. The electronic medical record was interrogated to obtain information about demographic data, complications, comorbidities and prognostic scores MELD-Na (Model for end stage liver disease-sodium) and CTP (Child Turcotte Pugh). Based on uni- and multivariate analysis, independent predictors of mortality were identified.

RESULTS: The mean age at diagnosis was 56.32 ± 11.45 years, with variations between 25-92 years, and a ratio of 2.1: 1 in favor of males. There were 296 deaths (20.8%), majority related to the first hospitalization (208/14.6%). Complications of the disease, univariate analyzed, negatively affect the survival rate, significant values being related to infections (sepsis, RR=4.09; OR=13.15, p=0.001; spontaneous bacterial peritonitis RR=2.34; OR=3.35; p <0.001) and hepato-renal syndrome (RR=3.01; OR=2.57; p<0.001). In patients with a CTP class C score (85.1%; 12.32±1.34) the risk of death was 5 times higher (RR=5.42; OR=7.74; p<0.001) compared to compensated patients (0.7%, RR=0.04; OR=0.03; p<0.001).The multivariate analysis showed that 1/4 of deaths at the first hospitalization were caused by the association of digestive hemorrhages with infections and hepatic encephalopathy (R2 adjusted =0.227; p=0.001).

CONCLUSIONS: The prognosis of the disease is negatively influenced by the worsening of liver dysfunction and the appearance of complications. The main predictors of mortality are infections and hepato-renal syndrome. Improving compliance and strict application of specific follow-up and treatment strategies could contribute to a better prognosis of patients with alcoholic cirrhosis.

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OP 16
IMPACT OF THE COVID-19 PANDEMIC ON METABOLIC SYNDROME IN COHORT OF LIVER TRANSPLANT RECIPIENTS

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KEYWORDS: metabolic syndrome, COVID-19 pandemic, liver transplantation

INTRODUCTION: Liver transplant patients had an increased risk during the COVID-19 pandemic, both due to immunosuppressive therapy and associated comorbidities. The relationship between metabolic syndrome and the COVID-19 pandemic is dual, with an increase in the metabolic syndrome rate and the increased risk of patients with metabolic syndrome for developing severe forms of COVID-19 infection.

MATERIAL AND METHOD: A cohort of 62 patients who received a liver graft between 2014-2017 was followed prospectively, both before and after transplantation by blood tests, abdominal ultrasound and Fibroscan with CAP module. The pre-pandemic (2019) and post-pandemic (2022) data were compared to assess the effect of the measures implemented in a population with an increased metabolic syndrome incidence.
Data was analyzed in IBM SPSS Statistics, version 26.

RESULTS: In the studied population, the majority of patients are men (62.3%) with an average age of 56 years and an incidence of metabolic syndrome of 53.3%.
Using the paired t-test function, no statistically significant differences were observed between the values of ALT (p = 0.18), AST (p = 0.71) and triglycerides (p = 0.38), and no differences in the degree of liver fibrosis assessed by both Fib-4 (0.49), as well as by Fibroscan (p = 0.37) between patients with metabolic syndrome and those without by comparing pre and postpandemic data.
The difference was observed using the same comparison analysis between total serum cholesterol values (p = 0.03) - a component of the Framingham cardiovascular risk score and CAP assessment (p <0.01), with significantly increased post-pandemic values.

CONCLUSION: The effect of the COVID-19 pandemic on liver transplant patients increased the severity of the metabolic syndrome (by increasing the degree of hepatic steatosis and cardiovascular risk score), but without increasing fibrosis, demonstrating the lack of direct impact on the graft, but increasing the risk of cardiovascular complications.

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PO 17

ASSOCIATION BETWEEN HLA ZYGOSITY AND CHRONIC HEPATITIS B VIRUS INFECTION IN ROMANIAN PATIENTS

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KEYWORDS: HLA genes, zygosity, hepatitis B virus

INTRODUCTION: Hepatitis B virus (HBV) is an important cause of chronic viral infection, cirrhosis, and hepatocellular carcinoma. The human leukocyte antigen (HLA) system is highly polymorphic and influences the natural history of HBV infection through the ability of HLA molecules to trigger immune responses in pathogen infections. Genetic HLA heterozygosity is thought to enhance resistance of hosts to infectious diseases, and offers positive outcomes of infection with either hepatitis B virus or human immunodeficiency virus (the "heterozygote advantage"). Revealing HLA gene polymorphisms in patients with chronic HBV infection by next-generation sequencing could help to better understand the immune pathogenesis and the clinical course of the disease.

PATIENTS AND METHODS: We have enrolled 190 patients with chronic HBV infection (positive for HBs Ag and total anti-HBc antibodies). The control group consisted of 200 bone marrow volunteer donors. None of the donors reported a personal history of cancer, or any HLA-associated disease, including chronic infections or autoimmune diseases. The HLA typing for all the patients was performed using next-generation sequencing method provided by Immucor (Mia Fora NGS Mflex) run on Illumina system platform.

RESULTS AND CONCLUSIONS: Our preliminary results showed that homozygosity at HLA-B, HLA-DPA1 and HLA-DRB1 loci was associated with risk of persistent HBV infection compared to the healthy control group.
HLA molecules through their role in regulating innate and adaptive immune responses could have different impact on pathogenesis of chronic HBV infection in our Romanian patients.

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OP 18

NONTUMORAL PORTAL VEIN THROMBOSIS IN PATIENTS WITH HEPATITIS C VIRUS AND SUSTAINED VIROLOGICAL RESPONSE - A FURTHER CHALLENGING CONSEQUENCE OF LIVER CIRRHOSIS

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KEYWORDS: direct antivirals, sustained virologic response, thrombosis

INTRODUCTION: The advent of direct-acting antivirals (DAAs) is a major breakthrough in hepatology representing the therapeutical standard of care in patients with chronic hepatitis C virus infection. Despite high rates of sustained virological response (SVR), DAAs therapy doesn't eliminate the risk of thrombotic events. We aimed to assess the prevalence of nontumoral portal vein thrombosis (PVT) after SVR.

MATERIAL AND METHODS: We prospectively analyzed a cohort of patients with HCV-related liver cirrhosis treated with paritaprevir/ritonavir, ombitasvir and dasabuvir (PrOD) ± ribavirin and ledipasvir/sofosbuvir (LED/SOF) ± ribavirin for 12/24 weeks, in a gastroenterology center from Romania, between January 1st 2016 and July 1st 2021. All patients with presumption of thrombosis were evaluated by vascular Doppler, abdominal ultrasound and confirmed by CT scan.

RESULTS: The study included 730 patients treated with DAAs, of which 35 were diagnosed with non-malignant PVT after-SVR (15 men and 20 women, mean age 57.86 ± 7,068 years), corresponding to a prevalence of 4.8%. The mean time from SVR to complication was 290.00 ± 116.639 days. Most patients with nontumoral PVT received LED/SOF (71.4%), while the rest received PrOD (28.6%). During the study, an improvement in the Child-Pugh and MELD score was observed at the SVR. The evolution changes slightly at the 48-week assessment, with a slight increase in the proportion of patients in the Child B class and MELD ≥ 15. The pro- and anticoagulant factors evaluated reflect the classic hemostatic profile of patients with liver cirrhosis and PVT, characterized by increased FII, FVIII and FvW and decreased anticoagulant factors (PC, PS, ATIII).

CONCLUSIONS: We conclude that thrombotic events in patients with HCV-related liver cirrhosis treated with DAAs are not influenced by the variations of coagulation parameters, rather correspond to the hypercoagulability status and the natural evolution of the cirrhotic patient.

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OP 19

COMBINED COVID-19 TESTING AND HEPATITIS B AND C VIRUS SCREENING INTERVENTION FOR PATIENTS PRESENTED FOR HOSPITALISATION AT AN EMERGENCY HOSPITAL, BUCHAREST, ROMANIA

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KEYWORDS: COVID-19, hepatitis B and C, pandemic

BACKGROUND The COVID-19 pandemic had a negative impact on viral hepatitis services globally. Romania's population is extremely under investigated in what concerns the diagnosis of hepatitis B, C, and D, and we took the advantage of the context created by the COVID-19 pandemic in order to promote a micro-elimination programme for the viral hepatitis.Micro-elimination programs in vulnerable groups are strongly recommended for the control and elimination of viral hepatitis.

METHODS: From may 2020 until may 2022, a group of 20736 patients that presented to our hospital for elective admission for medical or surgical diseases, has been tested for the presence of SARS-COV2, using the RT-PCR method. As well we tested those patients for the presence of HBs antigen and of HVC antibodies.

RESULTS: 1,14% and 1,12%   patients from the patients have been tested positive for HCV and HBV respectively, and 4 patients of the HBV carriers were simultaneously infected with HVD as well. 49,63% were women and the rest were men. The average age was 71 years old for women and 70 years old for men. Of 237 patients tested positive for HCV, 23% of them had detectable viremia, requiring further evaluation in order to stage the liver disease and initiate the antiviral treatment. 16.8% of 234 patients tested positive for HBV were eligible for antiviral treatment.

CONCLUSION: The concomitant testing for SARS CoV-2 and for hepatitis B, C and D in the hospitals was a good exercise in screening and micro-elimination during the pandemic and despite the primary concern of COVID-19, viral hepatitis is still an ongoing silent epidemic.

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OP 20
EVALUATION OF BODY FAT PERCENTAGE IN LEAN NAFLD PATIENTS USING CUN-BAE

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KEYWORDS: CUN-BAE, lean NAFLD, body fat percentage

BACKGROUND&AIM: Non-alcoholic fatty liver disease (NAFLD) has become the most common cause of chronic liver disease, its growing prevalence being mostly associated with the obesity pandemic and other metabolic conditions. NAFLD is also present in normal weight patients (body mass index (BMI) ≤25 kg/m²) – lean NAFLD with no clear risk factors, but lipids accumulation and increased body fat percentage (BF%) may play an important role in its development. Clinica Universidad de Navarra-body adiposity estimator (CUN-BAE) can be used to assess the BF%, when more accurate means are unavailable. The aim of this study was to evaluate the correlation between Vibration Controlled Transient Elastography (VCTE) with Controlled Attenuation Parameter (CAP) values and CUN-BAE.

MATERIAL AND METHODS: 141 lean patients with NAFLD diagnosed by VCTE with CAP were enrolled between January 2021 to March 2022. Clinical and biochemical data were collected for all participants. BMI and CUN-BAE were calculated.

RESULTS: In total, 141 patients (61.2% males) were included in the final analysis. According to the CUN-BAE cut-offs for BF%, there were 44 (31.2%) normal weight patients, 65 (45.6%) overweight and 32 (23.2%) obese individuals. Subjects with high CUN-BAE values had a higher prevalence of dyslipidemia (p=0.035) and type 2 diabetes mellitus (p=0.039). A significant stabistical difference can be seen between the two groups regarding total cholesterol (p=0.039), serum creatinine (p=0.047) and fasting plasma glucose (p=0.035) values. The mean value of liver steatosis for the overall cohort 272 ± 26.3 dB/m. There was a strong positive correlation between CUN-BAE values and age (r=0.532, p<0.001), CAP value (r=0.372, p=0.041) and total cholesterol level (r=0.237, p=0.041).

CONCLUSION: Although lean NAFLD patients have a normal BMI, their BF% can correspond to overweight or obese status. BF% assessment with CUN-BAE can be an accessible tool in identifying lean subjects at risk for developing NAFLD and other metabolic disorders.

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OP 21
CONTRAST-ENHANCED ULTRASOUND AND ARTIFICIAL INTELLIGENCE IN THE EVALUATION OF LIVER TUMORS

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KEYWORDS: artificial intelligence; liver tumors; contrast-enhanced ultrasound

INTRODUCTION: Standard ultrasound and contrast-enhanced ultrasound (CEUS) are the most widely used methods for the evaluation of liver tumors and they represent an extension of the anamnesis and clinical examination of the patient. Artificial intelligence (AI) has been introduced in ultrasound imaging and may improve diagnostic accuracy.

MATERIALS AND METHODS: In this paper, we propose a deep-learning system to assess hepatologists in diagnosing liver tumors, using CEUS, clinical data and AI methods. We included 49 patients with benign or malignant liver tumors evaluated with CEUS in the Gastroenterology Clinic from the Emergency Clinical Hospital of Craiova, between February 2, 2018 and December 17, 2020.

RESULTS: In the first step, we trained a model for image segmentation in order to extract the time-intensity curve. Then, we used the features extracted from TIC and clinical data to train a second deep learning model, represented by a connected neural network. We compared the performance of the AI method with two hepatologists with high expertise in ultrasound and CEUS of the hepatobiliary system. One of them was aware of the patient's clinical data, while the other performed a blind assessment for which the only data available was the presence of underlying liver disease. For the blinded evaluation, we have obtained a sensitivity of 0,81 and a specificity of 1, while the clinician who had acces to the clinical information obtained a sensitivity of 0,87 and a specifity of 1. The AI-based software obtained a sensitivity of 0,82 and specificity of 0,93.

CONCLUSIONS: The AI method demonstrated a reliable diagnostic accuracy and it may be used in clinical practice to assess liver tumors diagnosis.

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OP 22
PREDICTIVE FACTORS OF TRANSARTERIAL CHEMOEMBOLIZATION REFRACTORINESS IN PATIENTS WITH HEPATOCELLULAR CARCINOMA

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BACKGROUND: Repeated transarterial chemoembolization (TACE) can lead to loss of its efficacy with tumor progression and also can be associated with a deteriorated liver function. The aim of the study is to identify factors associated with TACE refractoriness.

MATERIAL AND METHODS: A number of 169 patients with hepatocellular carcinoma (HCC) who underwent TACE as a first-line treatment between 2013 and 2018 were analyzed. TACE refractoriness was determined according to the Japan Society of Hepatology guidelines. Univariate and multivariate analyses were performed to investigate the association between clinical features, tumor markers and TACE refractoriness.

RESULTS: Median follow-up was 47.4 months (range 37-98 months). The mean patient age was 62.2±7.9 years. Eighty-three patients had an alfa-fetoprotein (AFP) level > 20ng/mL. The median maximal diameter of the tumors was 3.5 cm. One hundred and ten patients (65.5%) were considered TACE refractory. The following independent features associated with TACE refractoriness were evaluated: maximum tumor size; tumor number; initial AFP value, initial prothrombin induced by vitamin K absence (PIVKA) value, AFP and PIVKA at one month after TACE. In the univariate analysis the presence of more than one nodule, an AFP greater than 20 ng/ml and PIVKA greater than 100 mAU/mL were associated with TACE refractoriness. In the multivariate analysis PIVKA greater than 100 mAU/mL and multinodular HCC were found to be predictive factors for TACE refractoriness, with a hazard ratio (HR) of 3.083 (p=0.003) and 1.520 (p=0.05), respectively.

CONCLUSION: In patients with HCC treated with TACE as an initial therapy, an elevated value of PIVKA greater than 100 mAU/mL and multinodular HCC were associated with TACE refractoriness.

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OP 23
SCREENING FOR HEPATITIS B VIRUS IN HIGH-RISK CATEGORIES OF ROMANIAN POPULATION IN LIVERO2SUD PROJECT AND CHARACTERISTICS OF HBSAG POSITIVE PATIENTS

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BACKGROUND: The 2016 Polaris Observatory study reported a global HBV prevalence of 3.9% (292 million persons) based on a country- and region-level modelling study of 120 countries; the collaborators furthermore estimated that only 10% (29 million) of infected persons were diagnosed. Romania, with a reported prevalence rate of 4.4 for HBs antigen (Ag), based on the nationwide cross-sectional survey conducted during 2006-2008,

represents a high figure within the European Union.

AIM: To screen socio-economic vulnerable population in order to provide high-quality medical services for the prevention, diagnosis, and referral to treatment for HBsAg positive subjects, as well as to refresh the HBV prevalence in this high-risk population. The screening project will be conducted till November 2023 in 12 out of the 41 counties of Romania, covering the Southern part of the country.

METHODS: Subjects from vulnerable categories as defined for the study purpose signed the informed consent and were consequently enrolled. Screening providers are family physicians (FPs) affiliated with the project who perform HBsAg rapid diagnosis tests in their office. Linkage-to-care and therapy will be further provided for all HBV-positive subjects. The project started on 28th of July 2021 (World Hepatitis Day) in the first 4 out of the 12 counties.

RESULTS: Between 28th of July and 28th of May 2022, 69,131 subjects have been screened. The overall prevalence of HBsAg was 1.44%, with a higher prevalence among urban population and males. Patients with the highest risk of being HBV chronically infected are patients aged between 30 and 39 years, Roma ethnicity, unemployed, divorced and showing low education level. The mean liver stiffness value was 5.95±3.90 kPa, with 3.38% of them having liver cirrhosis; mean HBV DNA value was 629414.18 ±579393.9 UI/mL. 66.2% of HBV positive patients do not need antiviral therapy. Among HBsAg positive patients, 1.97% had HDV coinfection. 14.29% of patients with positive HDV Ab had liver cirrhosis and the mean HDV RNA viral load was 877009.7 ± 265299.2 UI/mL; only 2 patients had undetectable HDV RNA.

CONCLUSIONS: The study demonstrated that the prevalence and profile (younger, urban residence) of HBV infection dramatically changed as compared to previous data. Majority of the HBsAg positive patients have chronic HBV infection but without fibrosis and no need for antiviral therapy. The understanding of the true burden of viral hepatitis in vulnerable Romanian population is necessary to develop targeted prevention and screening strategies aiming at achieving the 2030 WHO objectives of viral hepatitis elimination.

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OP 24
SCREENING FOR HEPATITIS C VIRUS IN HIGH RISK CATEGORIES OF ROMANIAN POPULATION IN LIVERO2SUD PROJECT AND CHARACTERISTICS OF HCV AB POSITIVE PATIENTS

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BACKGROUND: Romania was considered over the last 15 years, the European country with the highest prevalence rate of HCV infection based on our previous reported HCV prevalence from the single nationwide cross-sectional study. The POLARIS group used these data to create a model about the changing prevalence of HCV due to ageing, treatment and cure and mortality.

AIM: To screen socio-economic vulnerable population in order to provide high-quality medical services for the prevention, diagnosis, and referral to treatment for HCV-Ab positive subjects, as well as to refresh the HCV prevalence in this high-risk population. The screening project will be conducted till November 2023 in 12 out of the 41 counties of Romania, covering the Southern part of the country.

METHODS: Subjects from vulnerable categories as defined for the study purpose signed the informed consent and were consequently enrolled. Screening providers are family physicians (FPs) affiliated with the project who perform HCV-Ab rapid diagnosis tests in their office. Linkage-to-care and therapy will be further provided for all HCV-positive subjects. The project started on 28th of July 2021 (World Hepatitis Day) in the first 4 out of the 12 counties and engaged 321 FPs.

RESULTS: Between 28th of July and 28th of May 2022, 69,131 subjects have been screened. The overall prevalence of anti-HCV antibodies was 0.93%. The HCV prevalence was higher among female patients (p=0.0001) and increased with age (p=0.01). According to our results, a higher risk of being anti-HCV positive is associated with age >60 years, female gender, Roma ethnicity, inactive/retired, without or with low education level. Among patients that were detected HCV Ab positive, 13.43% had liver cirrhosis; the mean liver stiffness obtained at Fibroscan® was 8.84±6.61 kPa and mean CAP value was 250.21±64.11dB/m. HCV RNA was positive in 96.8% of patients and the mean viral load is 174615.8 ± 370271.7 UI/mL.

CONCLUSIONS: The burden of HCV infections is significantly lower than previous estimates even in this vulnerable high risk category of screened persons, with moderate to advanced liver fibrosis probably due to ageing population with increased mortality due to both liver and non-liver related causes. Our results contribute to more objective data compared to modelling forecasting, as well as to development of national strategies to achieve the WHO elimination targets for 2030.

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OP 25

THE FREQUENCY AND IMPACT OF INFECTIONS IN PATIENTS WITH ALCOHOLIC HEPATITIS

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BACKGROUND: Alcoholic hepatitis (AH) is one of the most severe forms of alcohol induced liver disease, especially severe alcoholic hepatitis (sAH), defined by a modified discriminant function (MDF) >32, being associated with 1 month mortality of 30%. Infections complicates AH and is the main cause of death in these group of patients, even in those who benefit from corticotherapy. Aim: to evaluate the frequency of infections in patients with AH and the outcome of this patients.

MATERIAL AND METHODS: a retrospective study was performed including 150 patients with AH over a period of 6 years in a tertiary Department of Gastroenterology and Hepatology. Systematic screening of infections was performed at admission, including chest x-ray, blood, urinary and ascites cultures. Severe AH was defined by a MDF score >32, response to corticotherapy was evaluated by Lille score at 7 days. Univariate regression was use to determine independent factors related to mortality.

RESULTS: One hundred and fifty subjects were included in the final analysis, 84% male, mean age 55.5 ±9.42. All patients were previously diagnosed with liver cirrhosis. 39.3% (59/150) presented infections at admission and 37.3% of the subjects with infections (22/59) died during admission, while only 19.7% (18/91) of those without infections, died (p=0.0283). 72.7% (109/150) of the included subjects had MDF>32 and received corticosteroid therapy and 42.2% of these (46/109) had an associated infection. In the group of those who received corticosteroid therapy, 35/109 (32.1%) deaths were recorded, 18/35 of them in patients with an associated infection (51.4%). Lille-7 was calculated in 90/109 subjects. 75.2% (82/109) of the subjects who received corticosteroid therapy were not responsive at 7 days and 31.7% of them (26/82) died, while 25% (2/8) of the responders died (p=0.9926).
In univariate regression analysis the presence of infections at admission was found to be an independent predictor for mortality (p=0.027).

CONCLUSION: AH is associated with a high risk of infection and infection screening is mandatory in these patients. The presence of infections at admission was found to be an independent predictor for mortality.

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OP 26

NOVEL SERUM BIOMARKERS FOR DETECTING INFECTIONS IN PATIENTS WITH LIVER CIRHOSSIS

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INTRODUCTION: Sepsis is a common cause of decompensation in cirrhotic patients, leading to multiple organ dysfunction syndrome and death. Patients with acute-on-chronic liver failure (ACLF) can develop bacterial infections once addmited in a hospital, the most frequent sites being ascites, lungs, urinary tract and bloodstream infections. Rapid diagnosis and treatment are required in order to improve the prognosis of cirrhotic patients.

MATERIALS AND METHODS: This is a prospective cohort study that included 50 patients diagnosed with liver cirrhosis, with ACLF grades 1 and 2, addmited in Fundeni Clinical Institute since 15January 2020 and is still ongoing. Data collected included demographic, biochemical, bacterial cultures and 3 serum biomarkers, human presepsin (sCD14-ST), human carbamoyl-phosphate synthase 1 mitochondrial (CPS-1) and interleukin 6 (IL-6). Data were analyzed using 2 sample t-test.

RESULTS: For the 50 patients with liver cirrhosis, the median age was 51±13.63 years, with 32(64%) males and 18 (36%) females. The most frequent etiology of liver disease was alcoholic, in 42% of cases, with hepatocarcinoma in 20% of cases. 17 patients had grade 1 ACLF (34%) and 16 (32%) grade 2 ACLF. There was a significant association between human presepsin and procalcitonin levels (161.98 pg/ml vs 2.06 ng/ml, p<0.001), and also with C reactive protein (CRP) levels (161.98 pg/ml vs. 39.29 mg/L, p<0.001). CPS-1 mean levels also correlate with procalcitonin and CRP levels (0.175 ng/ml vs 2.06 ng/ml, p=0.022, respective 0.175 ng/ml vs 39.29 mg/L, p<0.0001). IL-6 levels in acute decompensation did not correlate with procalcitonin and CRP levels (p=0.34 and p=0.37). High death rates were recorded, in 42% of cases and for 9 patients (18%) liver transplantation was possible.

CONCLUSIONS: Human presepsin and CPS-1 can be useful for early diagnosis of infections in cirrhotic patients, in order to institute antibiotic therapy, even prior to bacterial cultures results, thus reducing the mobidity and mortality.

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OP 27

OSTEOPOROSIS IN CIRRHOTIC PATIENTS BEFORE AND AFTER LIVER TRANSPLANTATION: THE RELATIONSHIP BETWEEN MALNUTRITION AND INFLAMMATORY SYNDROME

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KEYWORDS: liver cirrhosis, bone mineral density, osteoporosis

INTRODUCTION: Liver cirrhosis is associated with osteoporosis and liver transplant (LT) with increased bone demineralization. This study aimed to investigate the relationship between bone mineral density (BMD) and bone matrix demineralization in transplant candidates with malnutrition, inflammatory syndrome and altered levels of stress hormones.

MATERIALS AND METHODS: We included 99 patients diagnosed with cirrhosis and included for LT between May 2016 and April 2021 in CHU Saint Eloi, Montpellier, France. BMD was assessed by osteodensitometry (DXA). Malnutrition has been defined through anthropometry and the assessment of recent weight loss. The hormone TSH, free triiodothyronine (T3), free thyroxine (T4) and growth hormone (GH), cortisol, free testosterone, estradiol, interleukin-6 and tumor necrosis factor were evaluated in 74/99 patients. Overall, 57/99 patients received LT and 47/99 were followed-up for one year after transplantation. At follow-up, nutritional status and BMD were assessed in all the patients (n = 47), while 34/47 had blood samples available for analysis.

RESULTS: From all transplant candidates, 41% had osteopenia or osteoporosis. Malnutrition was associated with osteopenia/osteoporosis (probability: 3.5, 95% CI 1.4, 9.9). The hip Z score decreased by -0.25 (95% CI -0.41, -0.09) from the initial assessment to one year after transplantation. Initially high TNF-α values correlated with a more pronounced decrease in BMD (partial correlation (r) = -0.47, p <0.05) as well as high levels of initial cortisol (r = -0, 49, p <0.05).

CONCLUSION: Malnutrition in liver cirrhosis appears to be associated with osteopenia/osteoporosis, systemic inflammation (elevated TNF-α) and systemic stress (elevated plasma cortisol levels).
Liver transplantation improves the quality of life of these patients but can increase the bone demineralization process in the medium term by increasing the release of stress hormones.

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OP 28

THE THREAT OF CARBAPENEM RESISTANCE IN EASTERN EUROPE IN PATIENTS WITH DECOMPENSATED CIRRHOSIS ADMITTED TO INTENSIVE CARE UNIT

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KEYWORDS: cirrhosis; ICU; multidrug resistant organisms

INTRODUCTION: Multidrug-resistant organisms are an increasing concern in patients with decompensated cirrhosis. We aimed to evaluate the prevalence of infections with carbapenem-resistant Enterobacteriaceae in patients with decompensated cirrhosis.

MATERIAL AND METHOD: Patients with decompensated cirrhosis admitted to ICU were included. The isolated Enterobacteriaceae strains were tested for carbapenemase-producing genes using the Roche LightMix® Modular VIM/IMP/NDM/GES/KPC/OXA48-carbapenemase detection kit.

RESULTS AND CONCLUSIONS: 48 culture-positive infections were registered in 75 patients with acutely decompensated cirrhosis. Thirty patients contracted a second infection. 46% of bacteria isolated at admission and 60% of bacteria responsible for infections identified during ICU-stay were multiresistant. ESBL+ Enterobacteriaceae were predominant at admission, while carbapenem-resistance was dominant in both Enterobacteriaceae and Non-Fermenting-Gram-Negative Bacteria responsible for infections diagnosed during hospitalisation. OXA 48 or KPC type carbapenemases were present in 30% of the analyzed Enterobacteriaceae and in 40% of the phenotypically carbapenem-resistant Klebsiella pneumoniae strains. The length of ICU stay was a risk-factor for a second infection (p=0.04). Previous carbapenem usage was associated with occurence of infections with carbapenem-resistant Gram-negative bacteria during hospitalization (p=0.03).
The prevalence of infections with carbapenem-resistant Enterobacteriaceae is high in patients with decompensated cirrhosis admitted to ICU. Carbapenemase-producing genes in Enterobacteriaceae in our center are bla OXA-48 and bla KPC.

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OP 29

MAGNETIC RESONANCE SPECTROSCOPY IN HEPATIC ENCEPHALOPATHY: SYSTEMATIC REVIEW AND META-ANALYSIS

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KEYWORDS: hepatic encephalopathy, MRI spectroscopy, meta-analysis

INTRODUCTION: The impact of hepatic encephalopathy (EH) on the patient's prognosis is often underestimated. MRI spectroscopy (MRS) offers the possibility of studying in detail the pathophysiology of this condition. This review aimed to systematize and analyze the results of studies using MRS for the diagnosis of hepatic encephalopathy.

MATERIAL AND METHOD: To conduct this systematic review, a rigorous protocol was followed, indexed in the Prospero database (CRD42018109935), in accordance with PRISMA criteria. The studies included in the meta-analysis used 1H-MRI spectroscopy (1H-MRS), and the data were stratified according to the brain metablyte examined - N-acetylaspartate (NAA), myo inositol (mI), cholin (Cho) and glutamate/glutamine (Glx), trying to characterize the differences between healthy volunteers, cirrhotic patients without EH (CH), patients with minimal EH (MHE), patients with clinical EH (OHE). For each comparison, the randomized effect model was used to calculate the average standard deviation (SMD) and 95% CI in the Comprehensive Meta-Analysis® software program (version 3).

RESULTS: The systematic search identified 44 studies that met the inclusion criteria, and of these 36 were included for quantitative analysis. With the progression of hepatic encephalopathy, the concentration of mI progressively decreases in the parietal lobe (p<0.0001) and in the occipital lobe (p<0.0001), as well as the concentration of Cho in the parietal lobe (p<0.0001) and the basal ganglia (p<0.0001), while the concentration of Glx increases in all regions examined (p<0.0001). With regard to the differentiation between MHE and CH, the concentration of mI was lower in the parietal lobe (p<0.001) and occipital (p=0.001), Cho was lower in the parietal lobe (p=0.007), while the Glx concentration was higher in all regions examined (p<0.01).

CONCLUSIONS: MRS can differentiate with very good accuracy between cirrhonic patients with MHE versus those without MHE, based on concentrations of myo-inositol, choline and glutamate/glutamine in the parietal lobe.

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OP 30

VISCOSITY PLANE-WAVE ULTRASOUND FOR THE ASSESSMENT OF LIVER INFLAMMATION IN HEPATOCITOLYSIS SYNDROME

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KEYWORDS: elastography, viscosity, hepatocitolysis

INTRODUCTION: It is well-known that liver necroinflammation plays a key role in the process of hepatic fibrogenesis, thus there are several studies that assessed different methods for the evaluation of necroinflammatory activity in liver diseases. Viscosity Plane-Wave UltraSound (Vi.PLUS) 2D imaging mode, a parameter embedded in 2D - ShearWave Elastography (2D-SWE) ultrasound machine allows the quantification of tissue viscosity, which has been demonstrated to be is associated with liver inflammation due to shear wave dispersion. Hence, we aimed to assess the necroinflammatory activity in patients with hepatocitolysis syndrome.

MATERIAL AND METHODS: We prospectively enrolled consecutive patients referred by primary care physicians to the Institute of Gastroenterology and Hepatology, Iași with high transaminase levels (ALT or AST ≥ 50 U/L), between September 2021 to February 2022. All participants were evaluated using Aixplorer MACH 30 (Supersonic Imagine, Aix-en-Provence, France) ultrasound machine equipped with 2D-SWE.PLUS for quantifying liver fibrosis (LSM), Sound Speed Plane-wave UltraSound (SSp.PLUS) concomitant with Attenuation Plane-wave UltraSound (Att.PLUS) for liver steatosis, and Vi.PLUS for liver viscosity assessment.

RESULTS: In total, 83 patients (54.2% females, mean age 55.2 ± 15.05, BMI 25.69 ± 4.77 kg/m2) were included in our study. Valid measurements, according to guidelines, were obtained in 81 (97.6%) patients, and they were included in the final analysis. Among them 18 (21.7%) patients declared chronic alcohol consumption (> 30 g/day), and 6 (7.2%) patients tested positive for viral hepatitis (2.5% HBsAg, 4% HCV antibody). Forty-one (50.6%) patients were diagnosed with liver steatosis (SSp.PLUS ≤ 1537 Pa.s) with a mean SSp.PLUS of 1485 ± 36.89 m/s, and Att.PLUS of 0.44 ± 0.11 dB/cm/MHz. Regarding LSM, 61 (75.3%) patients had F0-1 (< 8 kPa) , 11 (13.6%) F2-3 (8-12.4 kPa), and 9 (11.1%) in F4 (≥12.5 kPa) degree, with a mean 2D-SWE.PLUS of 8.3 ± 7.18 kPa. 50 (61.7%) patients present an increased liver viscosity (≥ 1.8 Pa.s.) with a mean Vi.PLUS of 1.96 ± 0.50 Pa.s, being strongly correlated with ALT (r = 0.405, p <0.001), AST (r = 0.573, p <0.001), BMI (r= 0.284, p = 0.005), LSM (r = 0.803, <0.001), SSp.PLUS (r = 0.413, p <0.001), and Att.PLUS (r = - 0.331, p = 0.003). Participants with chronic alcohol consumption had an

increased Vi.PLUS [2.35 ± 0.77 vs. 1.86 ± 0.35 Pa.s (p < 0.008)] with an increased risk of liver necroinflammation (OR 2.13, 0.62 – 7.32, p <0.001) than nonalcoholic subjects. Moreover, patients with abnormal AST level had an increased risk of liver inflammation (OR 1.34 CI 0.52 – 3.42, p = 0.031), while an AST value of 72 U/L could modestly predict a ViPLUS score > 2.2 Pa.s (moderate liver inflammation) (ROC curve = 0.649, Sp = 75 , Ss = 57%).

CONCLUSION: Vi.PLUS parameter represents a novel tool for non-invasive liver inflammation assessment which correlates with both fibrosis and steatosis ultrasound parameters, thus being a promising and a highly interesting method for disease staging in patients with NAFLD and abnormal liver enzymes.

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OP 31
FEATURES AND OUTCOME OF ACUTE HEPATITIS E INFECTION AMONG PATIENTS WITH CIRRHOSIS

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KEYWORDS: hepatitis E, cirrhosis, ACLF

INTRODUCTION: With at least two million locally acquired infections in Europe every year, hepatitis E viral infection (HEV) represents a significant cause of morbidity and mortality, especially in patients with chronic liver disease or immunocompromised states.
We aimed to assess the features of hepatitis E infection in our center and evaluate the impact of HEV infection in patients with advanced liver disease.

MATERIAL AND METHODS: All consecutive patients detected with HEV RNA viremia and/or anti-HEV IgM antibodies, and elevated transaminases between January 2019 and March 2022 were retrospectively included.

RESULTS: Ninety-two patients were included (mean age was 59±15, 69.6% were males). HEV infection affected 15 patients with diabetes (16.3%), 8 (8.7%) with malignancy, one patient (1.1%) was immunosuppressed (post kidney transplant therapy), 14 (15.2%) with choledocholithiasis, and 35 patients (38.0%) had cirrhosis. A total of 21 (23.1%) cases received treatment with Ribavirin.
Out of cirrhotic patients, 31 (88.6 %) were decompensated, and 19 (54.3%) were documented as having acute on chronic liver failure (ACLF). Ten patients (52.6%) with HEV-related ACLF also

had associated alcoholic hepatitis, significantly higher than the HEV non ACLF group (p=0.04). A total of 12 deaths (13%) were recorded during hospitalization, of which 11 had cirrhosis (90.9% had ACLF, p=0,01).
Univariate analysis revealed that cirrhosis (OR=25.66, 95% CI 3.13-210.06, p=0,002), acute alcoholic hepatitis (OR=7.0, 95% CI 1.88-25.97, p=0,004) and ACLF (OR=23.33, 95% CI 2,58-210,36, p=0.005) were associated with death. On multivariate analysis the only predictor of mortality was the presence of ACLF (p =0.02).

CONCLUSIONS: Hepatitis E virus infection is a common cause of viral hepatitis and carries a significant risk of cirrhosis decompensation, ACLF and mortality. Additional precipitating factors, mainly alcoholic hepatitis is associated with higher risk of ACLF in HEV cirrhotic patients.

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OP 32
CORRELATION BETWEEN ALTERATIONS OF GUT-BRAIN AXIS AND PROLONGED POST-INFECTIOUS DIARRHEIC SYNDROME IN PATIENTS WITH SYSTEMIC SCLEROSIS

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KEYWORDS: sclerosis, dysbiosis, diarrhea

INTRODUCTION: Recent analyses of patients with systemic sclerosis indicate that the gut-brain axis plays a crucial ethiopathogenetic role, responsible of various clinical manifestations . The gut-brain axis can be considered as a bi-directional multi-crosstalk pathway that governs the interaction between the gut microbiota and the organism. It therefore seems that inflammation in the gut can indeed result in activation of cytotoxic T lymphocytes that can travel to the central nervous system where they can induce inflammatory damage with subsequent demyelination and axonal loss, clinically manifested as intestinal transit disorders.

MATERIAL AND METHODS: Treatment and follow up of a patient with prolonged post-infectious diarrheic syndrome, occured on the background of a systemic sclerosis with digestive and respiratory impairment. Comparative analysis of existent data in literature regarding the etiopathogenesis of intestinal dysbiosis in patients with systemic sclerosis and therapeutic alternatives.

RESULTS: Six weeks after the diagnosis and treatment of a Clostridium Difficile infection, a patient with a personal history of systemic sclerosis admitted in our Department had severe diarrhea, emetic syndrome and anorexia. No infectious cause was detected We related her diarrheic syndrome to an intestinal dysbiosis. Systemic neuroinflammation is responsible for intestinal dysbiosis that promotes bacterial translocation, local and systemic inflammation and alters the enteric parasympathetic

nervous response. The imbalance of the intestinal microbiota in patients with systemic sclerosis consists of a reduced number of Bacterioides, Firmicutes, Faecalibacterium, Prevotella and Anaerostipes species.

CONCLUSIONS: Microbiota restoration with probiotics based on Lactobacillus Rhamnosus, Bifidobacterium, Prevotella Histolitica can improve both neurological and intestinal symptoms. A vegetarian diet rich in propionic acid or intermittent fasting strategies may have an enteral immunomodulatory effect and may promote the development of Lactobacillius species.

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OP 33

EFFICACY AND SAFETY OF FOLFOX-BEVACIZUMAB IN PROGRESSIVE METASTATIC NEUROENDOCRINE TUMORS

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INTRODUCTION: Neuroendocrine Tumors (NETs) well-differentiated are relatively rare and highly vascularized neoplasms expressing VEGF receptors. Anti-angiogenic treatments have shown encouraging results in patients with advanced NETs.
The aim of this study was to report the effectiveness and safety of the FOLFOX-bevacizumab combination in patients with metastatic NETs.

PATIENTS AND METHODS: We studied retrospectively all consecutive patient records with well-differentiated digestive NETs, metastatic and histologically proven, treated with FOLFOX-bevacizumab, in an expert center, from 2019 to 2021. The primary endpoint was the time to treatment failure, and the secondary endpoints were objective response rate and toxicity.

RESULTS: We included 19 patients (63% men, median age 60). The primitive was mainly the pancreas (68%), the small intestine (15%) or the lungs (5%), most patients (58%) had extrahepatic metastases and 37% of patients had bone metastases. Grade 1 NETs, grade 2 and grade 3 respectively accounted for 5%, 53% and 42% of cases, with a median Ki-67 of 21%. The patients were treated with FOLFOX-bevacizumab due to progression (79% cases, 2 previous lines , or first line for metastatic disease (21%). Patients have received a median of 17 cycles of FOLFOX-bevacizumab, including a median of 10 maintenance cycles per bevacizumab and/or LV5FU2. The median for treatment failure was 15.5 months. Rates objective response and disease control were respectively of 42% and 95%. The most common grade 3/4 toxicities were peripheral neuropathy (47%), asthenia (16%), arterial hypertension (11%) and neutropenia (11%).

CONCLUSION: The FOLFOX-bevacizumab combination has promising efficacy in patients with NETs progressive metastases, especially in those with G3 NETs, for which the optimal treatment is still poorly defined.

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OP 34

ULTRASOUND GUIDED MICROWAVE ABLATION FOR HEPATOCELLULAR CARCINOMA – A SINGLE CENTER EXPERIENCE

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INTRODUCTION: Hepatocellular carcinoma (HCC) is currently the second leading cause of cancer related- death worldwide.
Ultrasound-guided ablation is recommended in patients with early-stage HCC according to the Barcelona Clinic Liver Cancer (BCLC) classification, when surgery is not possible.
In recent years, microwave ablation (MWA) has become increasingly used as a minimally invasive technique with results similar to surgery in term of overall survival (OS) and recurrence free survival (RFS)

MATERIALS AND METHODS: We present a retrospective, observational and interventional study on a sample of 19 patients who underwent MWA for HCC with curative intent between 2018-2021 .

RESULTS: The average age was 66.4 years (50-86) including 4 women (21.1%) and 15 men (78.9%). Of these, 17 patients (89.5%) had liver cirrhosis of which 84.2% had a Child A score (n = 16) and 15.8% Child B (n = 3). The median follow up was 8.26 months.
According to the BCLC classification, stage 0 was registered in 5 patients (26.3%) and stage A in 14 patients (73.7%).
Restrictive mean of OS and PFS were 22 and 7.81 months respectively.
Multivariate analysis showed that age and MELD score are predictors of disease progression (OR=1.25, p = 0.03)(OR=1.6, p=0.05).

CONCLUSIONS: Microwave ablation is a safe method, and the data from our study on survival are comparable to those in the literature.
Independent predictors of disease progression were MELD score and age.
The results must be validated on a larger group and for a longer period of time

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OP 35

MORE THAN ONE WAY TO SKIN A CAT: MANAGEMENT OF PERIPANCREATIC FLUID COLLECTIONS IN A TERTIARY REFERRAL CENTER

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KEYWORDS: pancreatic collections, endoscopic drainage

INTRODUCTION: Pancreatic and peripancreatic collections (PPC) are important causes of increased morbidity and mortality for patients with acute pancreatitis. Recently either transpapillary or trasmural endoscopic drainage has become a viable option to surgery. However there is still no agreement regarding the optimum method of endoscopic treatment, the decision being often influenced by the local expertise.

MATERIAL AND METHODS: We made a retrospective analysis of the PPC cases treated in our centre, in order to describe the types of minimally-invasive treatement performed and to assess the rates of technical and clinical succes.

RESULTS AND DISCUSSION: We introduced 23 patients with PPC reffered to Colentina Gastroenterology Department from January 2016 until May 2022. They presented with walled-off pancreatic necrosis (9/23) and pancreatic pseudocysts (18/23) and complained of abdominal pain (20/23), gastric outlet obstruction (2/23) and intractable singultus (1/23). Their mean age was 55± 14.4 years old, and were predominantly males (18/23). We performed a total number of 49 endoscopic procedures (median 3, minimum 1 – maximum 6) as follows: endoscopic retrograde cholangiopancreatography-guided transpapillary drainage using plastic stents (10/45), endoscopic ultrasound-guided drainage with plastic stents (22/45), endoscopic ultrasound-guided drainage with metal stents (LAMS – lume-apposing metal stents) (3/45) and evaluation endoscopy at the end of the treatment (10/45). Technical succes was achieved in 73% (17/23), while clinical succes was achived in 81% (13/16) of patients. 4 patients (17%) were reffered to surgery (2) and to percutaneous drainage (2) after initial endoscopic ultrasound evaluation. There were also 9 (22%) periprocedural complications consisting of bleeding (2/45), infection of the collection (2/45) and stent migration (5/35) – solved mainly endoscopically with the exception of one bleeding patient that needed urgent surgery.

CONCLUSION: endoscopic drainage has proved to be safe and efficient for the majority of our
patients, with an increased rate of clinical succes and a good safety profile.

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OP 36

DETECTION OF COLONIC ADENOMAS USING SFI-SPECTRAL FOCUSED IMAGING IN AN OPPORTUNISTIC SETTING

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AIM: Colorectal cancer remains a major health issue and colonoscopy is the main method proved to decrease incidence and mortality. Different quality measure items for screening colonoscopy were introduced over time. A higher adenoma detection rate (ADR) has been shown to be related to a lower incidence and mortality of colorectal cancer. We used spectral focused imaging SFI for assessing the detection and miss of various featured adenomas as compared with white light imaging (WLI). The adenomas were characterized using the VALID classification that we firstly introduced in 2019.

METHODS: We conducted a prospective, randomized, tandem trial in opportunistic screening patients using the 4 LED 550 HD series endoscopy system form Sonoscape (Shenzen,China) The participants were randomly assigned to two groups: first observation by SFI, then second observation by WLI (group A); or both observations by WLI (B group). Examinations were conducted by 3 junior and 3 senior endoscopists. The primary outcome was to compare the ADR during the first observation. Secondary outcomes included evaluation of adenoma miss rate (AMR) and visibility score.

RESULTS: A total of eighty patients were randomized, 70 of whom were included in the final analysis. The ADR was 71% and 65.2% in the SFI and WLI groups, respectively, with no significant statistical difference.
However, SFI improved the average ADR in low-detectors compared to high-detectors (73.0% vs 51%; P < 0.001). The adenoma miss rate AMR was 20.6% in the SFI group, which was significantly lower than that in the WLI group (32%) (P < 0.001). The AMR in the SFI group was significantly lower, especially for diminutive adenomas less than 10 mm in diameter (24% vs 35.1%; P < 0.001) and non-polypoid lesions (26% vs 38%; P < 0.001) as compared to the WLI group.

CONCLUSION: Although both methods provided a similar ADR, SFI had a lower AMR than WLI. Further studies are necessary to validate these findings especially in real life screening colonoscopy conditions.

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OP 37

FNA NEEDLES – ARE THEY CAPABLE OF ACQUIRING TISSUE FRAGMENTS?

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INTRODUCTION: Endoscopic ultrasonography with fine needle aspiration (EUS FNA) has become an increasingly important tool to achieve a definitive diagnosis of solid pancreatic tumors. One major issue of FNA is the inability of acquiring enough material for cytology using the small diameter needles or the difficulty of reaching tumors located in the uncinate process or the head of the pancreas.

MATERIALS AND METHODS: The aim of this study was to demonstrate the ability to obtain fragments of tissue with FNA needles that can be processed into paraffin blocks, cut, then stained and later assessed by the histopathologist. For the unity of the study, we selected the last 100 patients who underwent EUS FNA for solid pancreatic tumors in which we used only middle-sized needles of 22G.

RESULTS: The average number of passages with the 22G needle through the lesion was of 2.4 times and we obtained an average of 8.9 smears per case. The total cases positive for pancreatic ductal adenocarcinoma (PDAC) or pancreatic neuroendocrine tumor (PNET) cytology were 93% (n= 93, PDAC 98% and PNET 2%). We acquired visible tissue fragments which were assessed macroscopically by the endoscopist and by the on-site histopathologist, in 93% of cases (n= 93), as well. Therefore, the visible tissue samples were processed by the histopathologist into paraffin blocks, out of which 89.3% (n= 83) were positive for the PDAC/PNET diagnosis (p< 0.05).

CONCLUSIONS: We find the FNA a cost effective and capable technique in the hand of an experienced endoscopist of acquiring fragments of tissue that later, can be processed into cell block for histology assessment.

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OP 38

SPECTRAL FOCUSED IMAGING IN DIAGNOSING INTESTINAL METAPLASIA AND H PYLORI INFECTION- A PILOT STUDY

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OBJECTIVE: Digital chromoendoscopy is widely available with the new generation of endoscopes; a novel image-enhanced endoscopy- spectral focused imaging SFI(Sonoscape corp, China) can be used to recognize differences in mucosal color. We investigated whether SFI could improve the diagnostic accuracy of gastritis and gastric intestinal metaplasia.

MATERIALS AND METHODS: Upper endoscopy videos from 100 patients were analyzed; endoscopy was performed using white light imaging (WLI) and SFI.
Images were assessed by two expert and two junior endoscopists which reviewed the videos for endoscopic diagnosis of atrophic gastritis, metaplastic gastritis, nodular gastritis and H. pylori infection. Tissue biopsies with histologic examination and with rapid urease tests for H. pylori infection status and intestinal metaplasia detection were performed according to Sydney classification.

RESULTS: Kappa values for the inter-observer variability among the four endoscopists were fair to moderate under WLI and fair to good under SFI; no difference were observed between the senior and junior endoscopists.
Sensitivity, specificity, positive predictive value and negative predictive value for diagnosing H. pylori infection using WLI were 29.4%, 91.3%, 83.4% and 54.%, respectively, while those for SFI were 58%, 92.2%, 88 % and 65 %, respectively. The accuracy and sensitivity of SFI for diagnosing H. pylori infection were significantly higher than those of WLI (p < .001 for both). SFI better diagnosed the extent of intestinal metaplasia but we fail to demonstrate a superiority in detection over WLI.

CONCLUSIONS: SFI has better diagnostic accuracy for H. pylori infection status than WLI.
Future studies are necessary for the evaluation of this method in detection of intestinal metaplasia and its extent.

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OP 39

WET-SUCTION VERSUS SLOW-PULL TECHNIQUE FOR ENDOSCOPIC ULTRASOUND-GUIDED FINE-NEEDLE BIOPSY OF SOLID LESIONS: A MULTICENTER, RANDOMIZED, CROSS-OVER TRIAL

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KEYWORDS: EUS-FNB, wet suction, slow pull

INTRODUCTION: Limited data on EUS-FNB comparing wet-suction (WS) and slow-pull (SP) found no difference in cellularity scores and blood contamination based on technique utilized. We aimed to compare histological yield, sample quality, and diagnostic accuracy of EUS-FNB performed with WS versus SP technique.

MATERIAL AND METHODS: Consecutive patients with solid lesions ≥1cm who underwent EUS-FNB with a 22G fork-tip or Franseen needle were enrolled in a multicenter, randomized, single-blind, cross-over trial. Lesions were sampled with both WS and SP alternating the sampling techniques in a randomized fashion. Samples taken during 1st/3rd and 2nd/4th passes were placed in separate vials and processed as standard histology. The primary aim was the histologic yield, defined as rate of samples containing a tissue "core". Secondary endpoints were: sample quality in terms of tissue integrity and blood contamination measured using predefined scores; diagnostic accuracy measured against the final diagnosis after resection surgery or a clinical follow-up of at least 6 months.

RESULTS: 210 patients (men 55.5%; mean age 65.9) with 146 pancreatic and 64 nonpancreatic lesions were analyzed. A tissue core was retrieved in 150 (71.4%) and 129 (61.3%) cases using the WS and the SP, respectively (p=0.03). Mean tissue integrity score was higher using the WS (2.6±0.6 vs 2.5±0.5, p=0.02). Blood contamination was higher using the WS (2.1±0.8 vs 2.4±0.5, p<0.001). Similar results were observed for nonpancreatic lesions. Differently, for pancreatic lesions tissue core rate and tissue integrity score were similar but with a higher blood contamination using the WS. Diagnostic accuracy was similar in the two groups, overall and in subgroups of pancreatic/ nonpancreatic lesions.

CONCLUSION: For pancreatic lesions, WS negatively impacts blood contamination of EUS-FNB samples without significantly influencing diagnostic accuracy. Differently, EUS-FNB of nonpancreatic lesions could be performed using WS, but the risk of higher blood contamination should be further evaluated.

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OP 40
GENES AND GENETICS IN CELIAC DISEASE

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KEYWORDS: aceliac disease, HLA-DQ susceptibility, phenotype

INTRODUCTION: Celiac disease (CD) is considered to have a high heritability. Several studies have indicated that a strong HLA-DQ 'gene dose' effect exists with apparent implications on CD development and disease phenotype.

MATERIAL AND METHODS: A retrospective analysis of medical records was performed using the adult CD patient cohort attending a single tertiary referral centre. The study was carried out between January 2015- December 2019 and included 81 patients. Complete HLA-DQ typing alleles were isolated using genomic DNA extracted from EDTA-anticoagulant peripheral blood according to the manufacturer instructions.

RESULTS: HLA-DQA1*02/DQA1*05 was identified in 49.3%, DQA1*05/DQA1*05 in 21.3% of cases, and HLA-DQB1*02/DQB1*02 in 41.3 % of cases. 8% of patients are DQ2.5 homozygous, 64% are DQ2.5 heterozygous, 24 cases DQ2.5 / DQ2.2, 24 (32%) have the DQ2 genotype 2.5/DQX, 2.67% inherited DQ2.5/DQ7, respectively 1 isolated HLA-DQ2.2 homozygous case. DQX/DQX were identified at 10 (13.33%). Low frequency was identified for HLA-DQ8. When assessing disease phenotype, the carriage of 2 HLA-DQB1*02 copies was associated with the presence of anaemia (P=0.024), but not with the presence of recurrent or chronic diarrhea, loss of weight, infertility or dyspepsia. No differences were detected between the presence of one vesus two DQB1*02 copies and the different Marsh classifications, P=0.725. However, the CD patients expressing 2 copies were more likely to have increased IgA-tTG and IgA AGA levels compared to those expressing only one copy.

CONCLUSIONS: The number of copies inherited by CD patients influences disease phenotype, but does not interfere with histological involvement. The lack of dosage effect on histological changes suggests that the presence of HLA-DQ heterodimers confers risk of disease, but there are additional factors that determine severity.

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POOR OUTCOME FOR PATIENTS WITH ACUTE PANCREATITIS AND COVID19 INFECTION

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KEYWORDS: acute pancreatitis, COVID19

BACKGROUND: The novel coronavirus disease 2019 (COVID-19) has caused a global pandemic. The aim of the study was to assess the influence of COVID-19 infection on the outcome of acute pancreatitis (AP) and to identify risk factors for poor prognosis in these patients.

METHODS: We retrospectively reviewed medical charts of all patients with AP admitted in a tertiary referral center during the 2-year COVID outbreak. We assessed two control groups: patients with AP and COVID (COVID-AP) and non-COVID patients with AP (non-COVID-AP).

RESULTS: During the study period, 293 patients with AP were admitted, of whom 31 (10.5%) tested positive for COVID19 infection. Most of the patients were males (61.1%), mean age 53.4 ± 17.5 years and had alcoholic pancreatitis (50.1%). The majority of patients included in the study groups had at least one comorbidity 77.4% (COVID-AP), and 82.1% (non-COVID-AP) respectively. The multivariate Cox regression analysis demonstrated that alcoholic etiology (HR 1.345, 95% CI 1.037-1.744, p = 0.048) and COVID19 infection (HR 5.603, 95% CI 3.002-10.457, p <0.001) were independent risk factors for poor outcome. Patients with COVID-AP had more severe AP (p=0.021), required ICU admission (<0.001), and had longer hospitalization (<0.001) compared to non-COVID-AP. The in-hospital mortality of COVID-AP did not differ from non-COVID-AP (OR = 1.12, 95% CI = 0.45-245) but was higher than non-COVID-AP (OR = 2.46, 95% CI = 1.35-4.48).

CONCLUSIONS: In-hospital mortality of COVID-AP does not differ from non-COVID-AP but is higher than non-COVID-AP, and the higher severity of AP in COVID patients could partially contribute to this increment. Alcoholic etiology was also an independent risk factor for poor outcome for patients with AP.

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QUANTITATIVE ASSESSMENT OF CONTRAST ENHANCED ENDOSCOPIC ULTRASONOGRAPHY (CE-EUS) WASHOUT RATE IN PREDICTING MALIGNANCY IN PANCREATIC SOLID MASSES: A PILOT STUDY

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KEYWORDS: contrast enhanced endoscopic ultrasound (CE-EUS) – solid pancreatic tumor – chronic pancreatitis

BACKGROUND & AIM: Contrast enhanced endoscopic ultrasound (CE-EUS) is a sensitive method to evaluate pancreatic solid masses, with arterial hypoenhancement in adenocarcinomas and hyperenhancement in case of inflammatory masses or neuroendocrine tumors. However, the importance of venous wash-out has been less studied.

THE AIM: to evaluate the diagnostic role of CE-EUS wash-out rate in the early and late venous phase based on quantitative analysis.

METHODS: We prospectively analyzed patients from one center with solid pancreatic masses on CT scan who underwent conventional EUS followed by CE-EUS and EUS-fine needle aspiration. Quantitative parameters were generated by time-intensity curve analysis. A standardized region of interest inside the tumor was examined and the quantitative uptake of Sonovue was recorded. The analyzed parameters in the wash-out phase were: peak intensity between 25-30 seconds, uptake at 45 seconds – defined as early washout and uptake at 60 seconds – defined as late washout. The early and late washout rates were analyzed as a ratio compared to the peak and as decrease in absolute values on the time-intensity curve. The final diagnosis was based on surgery or EUS tissue acquisition results and 6 months follow-up.

RESULTS: A total of 31 patients were included, 23 adenocarcinomas and 8 chronic pancreatitis patients. In adenocarcinomas the early wash-out was 80,3%±26,4% (absolute values -3,6±-7,1) and the late wash-out was 73±34,1% (absolute values: -6,9±-15,7), showing slow wash-out. In case of chronic pancreatitis, the early wash-out was 81,8±15,7% (absolute values: -7,4±-3,25) and late wash-out was 61,4±18,4% (absolute values: -15±6,16). There was no statistically significant difference between the adenocarcinomas and chronic pancreatitis group.

CONCLUSION: The washout rates between pancreatic adenocarcinoma and chronic pancreatitis were not different. The high standard deviation value at 60 seconds in the adenocarcinoma group shows the heterogeneity of the washout rate and further assessment based on different grading of adenocarcinoma is needed.

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SHEAR-WAVE ELASTOGRAPHY IN SOLID ANCREATIC LESIONS: A PILOT STUDY

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KEYWORDS: endoscopic ultrasound (EUS) – endoscopic ultrasound elastography (EUS-EG) – solid pancreatic tumor

BACKGROUND: Strain elastography histogram endoscopic ultrasound (SH) has been proved as a valuable supplement to endoscopic ultrasound (EUS) in assessing solid pancreatic lesions, with sensitivity of 98% and specificity of 63%. However, the value of newly available shear wave EUS elastography (EUS-SWM) has been disappointing in one retrospective study.

AIM: to assess the diagnostic value of SH and EUS-SWM in solid pancreatic lesions.

METHODS: Our prospective study was started in August 2021 in one tertiary medical center and we recruited patients with solid pancreatic masses> 2 cm in diameter at CT scan for EUS assessment first with strain histogram (SH) (3 measurements), followed by EUS-SWM (3 measurements with VsN>20). Patients with inconclusive pathology results were excluded. The final diagnosis was based on surgery or EUS tissue acquisition results.

RESULTS: 37 patients with solid pancreatic lesions were evaluated. The final diagnosis was 26 pancreatic adenocarcinomas, 2 neuroendocrine pancreatic tumours (NETs). Nine patients (24,32%) were excluded because of inconclusive biopsy results or other kind of lesions. The mean value of SH for pancreatic adenocarcinoma was 35,93 and for NETs 38,83 (p<0,05). The mean values of EUS-SWM were 45,86kPa for pancreatic adenocarcinomas and 20,59kPa (p<0,05).

CONCLUSION: In this prospective study we found a significant difference between SH and EUS-SWM in differentiating pancreatic adenocarcinomas and NETs. Semiquantitative assessment by strain ratio was higher in neuroendocrine tumors compared with pancreatic adenocarcinoma, which was discordant compared to the results of shear-wave. Further research is needed in this topic with a larger database in order to face the challenges in standardizing the EUS-SWM procedure in pancreatic lesions.

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THE CONTRAST-ENHANCED ENDOSCOPIC ULTRASOUND GUIDED FINE NEEDLE ASPIRATION UTILITY IN THE DIAGNOSIS OF PANCREATIC CYSTS

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KEYWORDS: CH-EUS(contrast-enhanced endoscopic ultrasound) – EUS-FNA (endoscopic ultrasound fine needle aspiration) – endoscopic ultrasound – pancreatic cyst – mural nodule

PURPOSE: Endoscopic ultrasound fine needle aspiration (EUS-FNA) cytology from an intracystic fluid is useful in differentiation of pancreatic cysts, with low sensitivity, which increases when the solid component is targeted. The results of contrast-enhanced guided EUS-FNA (CH-EUS-FNA) in the solid component are not known. We aimed to assess the diagnostic value of CH-EUS-FNA in enhanced mural nodules and discrimination between different cysts using contrast enhanced endoscopic ultrasound (CH-EUS).

MATERIAL AND METHODS: The prospective study recruited patients with pancreatic cysts with unclear diagnosis on transabdominal imaging. The CH-EUS was followed by CH-EUS-FNA towards the most enhanced part of the cysts. The final diagnosis was based on surgery or the correlation between clinical history, cross-sectional imaging, echoendoscopic morphology, cystic fluid analysis and follow-up.

RESULTS: Eighty- five patients with pancreatic cysts were evaluated. The mucinous cysts had wall arterial enhancement more often than non- mucinous cysts (p<0.0001), with 90.2% sensitivity and 70.6% specificity, but without importance for diagnosing malignancy. The CH-EUS-FNA from cystic fluid and mural nodules identified mucinous cysts and malignancy with 82.4% and 84.2% sensitivity and 92% and 100% specificity. Twenty-one cysts had solid components, and 13 were enhanced mural noduls with conclusive cytology in all cases and malignancy in 76.9%.

CONCLUSIONS: CH-EUS should be done in all PCN with solid component in order to avoid unnecessary EUS-FNA and to guide FNA for identification of malignant cyst. The wall enhancement helped to differentiate mucinous from non-mucinous cysts.

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DIAGNOSTIC RESULTS COMPARISON OF ENDOSCOPIC ULTRASOUND FINE NEEDLE BIOPSY VERSUS FINE NEEDLE ASPIRATION IN FOCAL LIVER LESIONS

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KEYWORDS: COVID-19, hepatitis B and C, pandemic

INTRODUCTION: Accurate diagnosis in focal liver lesions is related to the possibility of performing histology diagnosis and immunohistochemistry. The endoscopic ultrasound- fine needle biopsy(EUS-FNB) or fine needle aspiration(EUS-FNA) represents the way of their sampling when percutaneous biopsy is limited by ascites or poorly accessible lesions or when concomitant pancreatic or gastric lesions should be approached by endoscopic ultrasound (EUS). However, the superiority of different needles of same size has not been established.

AIM: to compare the diagnostic accuracy and adequacy for histology of core obtained with EUS-FNB needle compared to FNA needle in focal liver lesions.

MATERIAL AND METHOD: In this prospective one center study(January 2019 to Mars 2021) were included patients with left lobe hepatic focal lesions with contraindication for percutaneous liver biopsy or need for EUS for concomitant lesions. Each patient had a sequence of EUS-guided tissue acquisition with a sequence of one pass of 22G FNB (Franseen) needle followed by one pass of 22G EUS-FNA. Specimens were then reviewed separately by pathologist to determine the diagnostic and the adequacy for histologic diagnosis. The final diagnosis was based on EUS-FNB or EUS-FNA results or suggestive imaging of the primary lesion in case of negative biopsies during follow-up.

RESULTS: Sixty biopsies (30 each with 22G FNB and 22G FNA needle) were obtained. Tissue adequacy and cellularity was greater for FNB samples (90% vs 63.3%,p=0.014 and 53 vs 39 cells/mm3, p=0.0039). After processing, core tissue aggregates length was higher for the FNB versus FNA (12.1 vs 7.9 mm, p= 0.0085). EUS-FNB accuracy was 100% while EUS-FNA was 86.7%(p=0.038). No post-procedure complications were noted.
Conclusion: The 22G EUS-FNB needle proved as safe and better method of tissue acquisition diagnostic accuracy compared to 22G EUS-FNA in focal liver lesions.

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NEW-ONSET DIABETES MELLITUS AFTER DIRECT ENDOSCOPIC NECROSECTOMY THROUGH EUS-GUIDED LAMS DRAINAGE: A PILOT STUDY

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KEYWORDS: walled-off necrosis (WON) – LAMS (lumen-apposing metal stent) – diabetes mellitus – endoscopic ultrasound

BACKGROUND: Walled-off necrosis (WON) is a common complication of severe pancreatitis and patients with necrotizing pancreatitis have an increased risk of developing diabetes mellitus (DM). The endoscopic treatment of WON consists of transgastric necrosectomy after application of a lumen-apposing metal stent (LAMS).

AIM: to assess the frequency of new-onset DM after endoscopic drainage through LAMS using a Hot AxiosTM Stent Device if obstruction or infection of the WON is present.

METHODS: We included and retrospectively analyzed patients in one tertiary medical center who had developed WON after a severe episode of acute pancreatitis between October 2016 and April 2022. Necrosectomy was performed through application of LAMS with complete resolution of the WON. Blood glucose levels were monitored before endoscopic placement of the LAMS, one month and one year after its removal.

RESULTS: Of 50 included patients (male-to-female, 33:17; mean age, 60.06±11.54) with Hot Axios stent drainage of WON secondary to necrotizing pancreatitis, 24% (12 patients) had pre-existing DM. The follow-up of one year was available in 19 patients and 21% of these patients developed DM one year after the stent's endoscopic removal, while 31% had pre-existing DM (p=0.011, Fisher's test).

CONCLUSION: Our study showed that a small number of patients without DM prior to endoscopic drainage using a Hot Axios Stent Device developed DM one year after endoscopic removal of the stent. Considering the small group of patients, further multicenter prospective studies on this topic are needed to predict the risk of developing DM after drainage of WON using LAMS.

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ANTICOAGULANTS DECREASE MORTALITY AND MAJOR COMPLICATION RATES IN MODERATELY SEVERE AND SEVERE ACUTE PANCREATITIS - A SYSTEMATIC REVIEW AND META-ANALYSIS -

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KEYWORDS: acute pancreatitis; anticoagulants; low-molecular-weight-heparin

INTRODUCTION: Anticoagulant therapy, despite being frequently utilized in clinical practice for the management of acute pancreatitis (AP) relies on no formal consensus recommendation. We aimed to investigate the safety and efficacy of anticoagulation addition in the management of acute pancreatitis across all severity stages.

MATERIALS AND METHODS: A systematic search was performed on PubMed, Embase, and Cochrane from inception until 15th October 2021, without restrictions. Randomized controlled trials (RCTs) and observational studies that reported on the differences in the outcomes of AP patients treated with vs. without anticoagulation therapy (intervention vs. control group) were eligible. The random-effects model estimated pooled odds ratios (OR) and mean differences (MD) with 95% confidence interval. The study protocol is registered on PROSPERO, CRD42021283239.

RESULTS: Out of 7799 articles, we included seven in the meta-analysis. Analyses of the RCTs revealed that: mortality is significantly decreased in the anticoagulation group (236 patients) by comparison with the control group (237 patients) [OR 0.24; 95%CI 0.13; 0.45; I2 = 0%]. Moreover, anticoagulant treatment was associated with a significantly lower rate of multiple organ failure in the intervention vs control group (219/213 patients) [OR 0.33, 95%CI 0.18; 0.63; I2=0%]. Also need for endoscopic/surgical interventions for the management of AP was lower in the intervention vs. control group (236/237 patients) [OR 0.41, 95%CI 0,19; 0.90; I2=0%]. Length of hospital stay was shorter in the anticoagulation vs. control (6012/6013 patients) [MD -5,48 days, 95%CI -9,87; -1.10; I2=98%]. The analysis included both RCTs and observational studies. One RCT evaluated the risk of bleeding which had a lower incidence in the intervention group.

CONCLUSIONS: Based on our results, anticoagulants are safe and reduce the complication rates in moderately severe and severe AP cases. Further trials are needed to assess the safety of anticoagulant in mild AP and evaluate the risk of bleeding.

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USEFUL BOWEL ULTRASOUND CHARACTERISTICS IN MONITORING INFLAMMATORY BOWEL DISEASE PATIENTS

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KEYWORDS: Inflammatory bowel diseases, bowel ultrasonography.

BACKGROUND: Bowel ultrasound (BUS) is becoming a useful tool in managing inflammatory bowel diseases (IBD). Current guidelines recommend BUS as a complimentary imaging technique together with other cross-sectional imaging modalities to diagnose and monitor IBD patients. IBD are chronic diseases that require multiple endoscopic and imaging assessments, being diseases that not only involve a multitude of medical resources but patient compliance too.

METHODS: The study included 117 IBD patients of which 28 were diagnosed with ulcerative colitis and 89 with Crohn's disease. Diagnosis was established endoscopically and histologically and both patients with active and inactive disease were included. Exclusion criteria consisted in patients with other causes of inflammatory syndrome or with solely rectal localization of the disease. Subjects were prospectively evaluated using BUS and several sonographic aspects of the bowel wall were monitored (bowel wall thickness (BWT), bowel echo pattern, Doppler signal (DS) presence, hypertrophic mesentery and presence of lymph nodes). Biological markers of inflammation were obtained including faecal calprotectin. Patients were followed up for the next 6 months and data regarding switching therapy was noted.

RESULTS: Good correlations were observed for the measurement of the BWT (Pearson equation, r= 0.41, r=0.45 and r=0.45, r= 0,57 p<0.001) and values of C-reactive protein (CRP), erythrocyte sedimentation ratio (ESR), faecal calprotectin, and disease activity scores.
Significantly higher values of clinical and biological markers were associated with the presence of parietal DS (p<0.0001) suggesting that this BUS feature is an important bowel wall

inflammation surrogate. Higher Limberg scores correlated with increased values of biological markers of inflammation (p=0.002). The multivariate analysis showed that DS and a thicker than 5 mm bowel wall were independent predictors of step-up therapy. A higher than 5 mm BWT multiplied the risk of step-up therapy 2.4 folds. The presence of parietal DS raised the patient risk of switching therapy 7.6 times, making this BUS feature the most useful in evaluating inflammatory activity and predicting the need for treatment intensifying.

CONCLUSIONS: BWT and DS are two of the most important BUS features to use in evaluating and monitoring IBD patients and could have a role in disease decision making. These ultrasonographic characteristics are easy to identify even by someone with little experience in BUS, encouraging this imaging method use.

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OP 45
METABOLOMICS ANALYSIS IN THE DIAGNOSIS AND ETIOLOGICAL DIFFERENTIATION OF ACUTE PANCREATITIS

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INTRODUCTION: Acute pancreatitis (AP) is a common disease with increasing incidence. Metabolomics is a systematic method for the qualitative and quantitative analysis of all low-molecular-weight metabolites in a certain biological or physiological period. Metabolite profiling is a promising tool for AP diagnosis, etiological differentiation, and even developing new drugs.

AIMS AND METHODS: The aim of the current study was to establish a serum metabolomics approach to identify the potential diagnostic biomarkers for AP and to distinguish between the two main types of the disease, biliary AP (BAP) and alcohol induced AP (AAP).
This was a prospective study that included patients with AP. Control group without known gastrointestinal disease, with match ages and sex distribution was selected.
All the AP participants underwent blood tests on the second day of admission.
Samples were centrifuged and then stored at -80°C, metabolites were extracted using solvents (methanol: acetonitrile, 1:1), then high performance liquid chromatography coupled with mass spectrometry (LC-MS) was performed. After a successive alignment and normalization of matrix data we performed statistical analysis, including random forest analysis, using the biomarker analysis, the receiver operating curves (ROC) were obtained, finally enrichment analysis allowed the identification of specific alterations of metabolic pathways.

RESULTS: We included 34 patients in the AP group, and 26 individuals in the control group.

We identified 13 molecules with AUC value >0.8 for predicting AP.
The majority of the molecules we identified were part of the lysophospholipids (LyP) subclass of lipids. Some of these metabolites were previously reported to play inflammatory, anti-haemostatic, and cytotoxicity roles, role in calcium signalling. Targeting these pathways were proposed as therapeutic targets for many inflammatory disorders.
To differentiate AAP form BAP the best AUCs obtained were only acceptable.

CONCLUSION: The current results suggested that metabolomics is a valuable tool for identifying the molecular mechanisms that are involved in the mechanism of AP.

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OP 46
CHALLENGES IN CREATING THE HEREDITARY COLORECTAL CANCER SYNDROMES PATIENT REGISTER IN A TERTIARY CENTER

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KEYWORDS: colorectal cancer, hereditary syndromes, cancer register

INTRODUCTION: Hereditary colorectal cancer (HCRC) syndromes represent a relatively diverse group of disorders that exhibit different patterns of inheritance. Our aim is to create the very first patient register , making Fundeni Clinical Institute the center to seek for this category of patients

MATERIALS AND METHODS: We started interviewing patients that arrived in our clinic since August 2021. We gathered family and personal history, also we analyzed symptoms of debute like lower gatsronintestinal bleeding, transit abnormalities, abdominal pain, smoker status, and biological parameters like haemoglobin levels. Most patients performed during their multiple stays in hospital both upper endoscopy and colonoscopy, and at least one CT scan for screening of other organs that might have been affected

RESULTS: Until now, we have 19 index patients that have either a genetic, histological or clinical diagnosis. Out of them, six have been diagnosed with Lynch Syndrome (LS), one of them has the gene mutation for MUTYH associated polyposis, five with Familial Associated Polyposis (FAP), three of them with Attenuated FAP and last we have 4 patients with Peutz-Jeghers Syndrome, three of them being memebers of the same family We met some challenges in persuading their relatives that coming in for screening is the best solution in order to prevent a cancer diagnosis in a late stage. Most challenges come from fear of knowing they carry an illness that they may have potentially transmitted to their children. There are already patients that suffered complications by not coming to their appointments, like bowel obstruction in one of the PJS patients, colonic cancer in the carriers of the LS gene.

CONCLUSION: While challenging, this first year demonstrated the urgent need for this register and for a better managements of these patients that carry multiple potential complications that come with their respective syndromes.

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CIRCULATING CELL-FREE DNA BIOMARKERS ARE ASSOCIATED WITH POOR PROGNOSIS IN PANCREATIC ADENOCARCINOMA – A SYSTEMATIC REVIEW AND META-ANALYSIS

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KEYWORDS: pancreatic adenocarcinoma, cell-freeDNA, prognosis

INTRODUCTION: Pancreatic cancer has a poor prognosis with a 5year overall survival rate of around 8%. (1,2). Biomarkers that early signal therapy resistance may allow a more accurate management adjustment. In our systematic review and meta-analysis, we assessed the prognostic role of circulating cell-free DNA (ccfDNA) biomarkers in pancreatic ductal adenocarcinoma (PDAC).

MATERIALS AND METHODS: The systematic search was performed on the 21st of October, 2020 in 5 databases without restrictions. Studies reporting on survival differences in PDAC based on peripheral blood cfDNA status were reviewed. The random effect model yielded the pooled hazard ratios (HRs) and 95% confidence intervals (CI).

RESULTS: We included in the meta-analysis 40 studies counting 3323 patients. Both detection of ctDNA (HR=2.17, CI:1.63-2.9, HR=2.16, CI:1.57-2.97) and specifically of KRAS mutations within

ccfDNA (HR=1.49, CI:1.17-1.89, HR=1.88, CI:1.22-2.92) were associated with decreased overall survival (OS) and progression-free survival (PFS) respectively when all PDAC stages were analyzed together. In unresectable cases only ctDNA detection corresponded to decreased PFS (HR=2.46, CI=1.98-3.07) and OS (HR=2.42, CI=1.98-2.95), while KRAS mutations alone had no significant impact. From studies reporting on resectable cases, results for all types of biomarkers were pooled collectively, and their detection indicated a poorer prognosis.

CONCLUSION: Our data confirm that positive ccfDNA biomarkers indicate disease progression and a decreased overall survival in PDAC. Detection of ctDNA but not of KRAS mutations alone seems more appropriate to evaluate the unresectable cases.

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THE PROGNOSTIC ROLE OF CIRCULATING EXOSOMAL BIOMARKERS IN PANCREATIC DUCTAL ADENOCARCINOMA –A SYSTEMATIC REVIEW AND META-ANALYSIS

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KEYWORDS: pancreatic adenocarcinoma; exosomes; prognosis

INTRODUCTION: Extensive research is focused on the role of liquid biopsy in pancreatic cancer since reliable diagnostic and follow-up biomarkers represent an unmet need for this highly lethal malignancy. We performed a systematic review and meta-analysis on the prognostic value of circulating exosomal biomarkers in pancreatic ductal adenocarcinoma (PDAC).

MATERIALS AND METHODS: MEDLINE, Embase, Scopus, Web of Science, and CENTRAL were systematically searched without restrictions on the 18th of January, 2021 for studies reporting on the differences in overall (OS) and progression-free survival (PFS) in PDAC patients with positive versus negative exosomal biomarkers isolated from blood. The random-effects model estimated pooled multivariate-adjusted (AHR) and univariate hazard ratios (UHRs) with 95% confidence intervals (CIs).

RESULTS: Eleven studies comprising 634 patients were eligible for meta-analysis. When analyzing all PDAC stages jointly, detection of positive exosomal biomarkers indicated increased risk of mortality (UHR=2.81, CI:1.31–6,00, I2=88.7%, p<0.001), and progression (UHR=3.33, CI: 2.33–4.77, I2=0, p=0.879) Moreover, specific detectection of exosomal micro ribonucleic acids were associated with a decreased OS (UHR=4.08, CI: 2.16–7.69, I2=46.9%, p=0.152) In resectable stages, positive exosomal biomarkers identified preoperatively revealed a higher risk of mortality (UHR=5.55, CI: 3.24–9.49, I2=0, p=0.898). The risk of mortality in unresectable stages was not significantly increased with positive exosomal biomarkers (UHR=2.51, CI: 0.55–11.43, I2=90.3%, p<0.001).

CONCLUSION: Our results reflect the potential of exosomal biomarkers for the prognosis evaluation in PDAC. The associated heterogeneity reflects the variability of study methods across the eligible studies and need for their uniformization before transition to clinical use.

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HLA GENOTYPING IN ROMANIAN ADULT PATIENTS WITH CELIAC DISEASE, THEIR FIRST DEGREE RELATIVES AND HEALTHY PERSONS

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INTRODUCTION: Celiac disease is characterized by an inappropriate T-cell-mediated response to gluten in small bowel in genetically predisposed individuals, carriers of the DQ2 and/or DQ8 haplotypes of the human leukocyte antigen. The aim of our study was to asses HLA typing in adult patients with celiac disease, in their first degree relatives and in a healthy control group.

METHODS: We conducted a prospective observational study on three cohorts: 117 patients diagnosed with celiac disease, 41 first-degree relatives of celiac patients and 57 asymptomatic healthy volunteers. Low resolution HLA typing for DQ alleles was performed in all study subjects with DNA extracted from peripheral blood, using SSP HLA-DQB1 kit (Innotrain Diagnostik GmbH, Germany). Next Generation Sequencing (NGS) was used only in 18 patients for typing confirmation of DQB1 and DQA1 loci and whole gene sequencing.

RESULTS: Prevalence of HLA-DQ2 was significantly higher in the CD group compared to the healthy subjects group (95.6% vs 29.8%, p <0.001), with no statistically significant differences in HLA-DQ8 and combined HLA-DQ2/DQ8 prevalences. Several HLA DQA1 and DQB1 alleles (HLA-DQA1* 05:01, HLA-DQB1*02:01, HLA-DQB1*02:02) and haplotypes (DQA1*02:01-DQB1*02:02,DQA1*05:01-DQB1*02:01) were strongly associated with celiac disease in our group: OR 4.28, 4.28, 4.67 and 5.43 and 4.28 respectively. Predominantly, patients presented with typical symptoms and iron deficiency anemia. 95.5% of them had histological Marsh type modifications ≥3a. A relatively poor response to gluten-free diet was observed and 9.4% developed complications (refractory celiac disease, enteropathy-associated T cell lymphoma, intestinal adenocarcinoma), with a death rate of 6.8%. 23% associated other autoimmune diseases.Screening adherence for 1st degree relatives was very low: only 16%. Familial screening diagnosed 4 cases of asymptomatic celiac disease. 32 relatives (78%) had HLA-DQ2 haplotype, 5 carried HLA-DQ8, 4 didn't carry any risk haplotype.

CONCLUSIONS:This study demonstrated a higher prevalence of the HLA-DQ2 genotype in patients with celiac disease compared to the healthy population but not of HLA-DQ8 or combined HLA-DQ2/DQ8. Alleles HLA-DQA1* 05:01, HLA-DQB1*02:01, HLA-DQB1*02:02 and haplotypes (DQA1*02:01-DQB1*02:02,DQA1*05:01-DQB1*02:01) were strongly associated with celiac disease in our cohort.

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OP 50
KRAS MUTATION PROFILE IN PANCREATIC DUCTAL ADENOCARCINOMA ASSESSED BY TARGETED DEEP NEXT GENERATION SEQUENCING OF FNA-GENOMIC DNA AND CFDNA SAMPLES

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BACKGROUND: Genomic profiling of non-resectable PDAC is important for personalized medicine. Plasma cfDNA is an attractive source of genomic information but concordance with primary tumor is currently under investigation.

THE AIM of our study was to assess by targeted deep NGS the genomic landscape of KRAS mutations in non-resectable PDAC samples. Genomic DNA and corresponding cfDNA were sequenced in 19 pathologically confirmed PDAC cases, whereas only cfDNA was available for genomic profiling in 9 cases. For all samples, clonal hematopoiesis was documented by sequencing corresponding leucocyte genomic DNA for each sample.

RESULTS: Pathogenic KRAS mutations were detected in 100% of PDAC samples. After excluding mutations of clonal hematopoiesis, FNA genomic DNA samples yielded 26 pathogenic KRAS mutations, whereas in cfDNA samples, 29 mutations were identified. The mean number of KRAS pathogenic mutations identified only in gDNA samples was 3.3 whereas the mean number of such mutations identified only in cfDNA samples, was 2.3. Concordance between the two DNA templates for at least one pathogenic KRAS mutation was encountered in 50% of cases. In gDNA, the most frequent pathogenic KRAS mutations were: p.(Asp57Asn) 36.8%, p.(Gly12Asp) 31.6%, p.(Gly12Val) 31.6%, p.(Ala18Val) 26.3%, p.(Ala66Val) 26.3%, p.(Ala11Val), p.(Gln43Ter), p.(Gly12Arg) 21% respectively. In cfDNA samples the most frequent pathogenic KRAS mutations were: p.(Ala59Val) 39.2%, p.(Gly12Asp) 28.5%, p.(Ala11Val) 17.8%, p.(Ala18Val) 17.8%, p.(Ala130Thr), p.(Ala146Val), p.(Ala59Thr), p.(Ala66Thr), p.(Gln43Ter) and p.(Gly15Asp), each 14.3% respectively. Overall, gDNA and cfDNA were complementary in assessing mutation landscape in our study group. Considering genomic landscape provided either by gDNA or cfDNA templates, the most frequent pathogenic mutation hot spot identified was G12 77.7%. Synchronous G12 and G13 pathogenic SNPs were identified in 22.2% of analyzed samples, whereas p.(Gly12Asp) mutation was present in 42.8% of cases.

CONCLUSIONS: Deep NGS of FNA gDNA and cfDNA provided complementary results to generate KRAS pathogenic mutations profile, in non-resectable PDAC patients. Pathogenic KRAS mutations were identified in 100% of samples, G12 being the most frequent mutation hotspot in our patients. The results are relevant since recently it has been shown that KRAS p.(Gly12Asp) can be subject of targeted therapies by potent inhibitors via formation of salt bridge.

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INTRODUCTION: Under the collective term of inflammatory bowel disease are combined Crohn's disease (CD) and ulcerative colitis (UC), which have similar clinical and paraclinical features, but the macroscopic and histological appearance is completely different, with distinct management implications. The definite diagnosis requires the corroboration of multiple informations and although most of the time doctors do not encounter problems in establishing a diagnosis, in 10% of cases the diagnosis cannot be specified without a doubt.

MATERIALS AND METHODS: We conducted a single-center study, including retrospectively detected patients with inflammatory bowel disease and aimed as primary endpoint to analyze data to certify whether or not there are correlations between the presumptive macroscopic diagnosis developed by the endoscopist and the histopathologicalone, reported by the histopathologist. Secondary endpoints were analysis of epidemiological data, clinical manifestations, description of macroscopic appearance and the existence of microscopic lesions specific to each pathology, as well as histopathological scores (GHAS for CD and Geboes for UC).

RESULTS AND CONCLUSIONS: 174 patients were eligible and were divided into two groups: 80 patients with a presumptive diagnosis of CD and 94 with UC. Of these, 52.9% are men and 47.1 are women, 74.7% are from urban areas and have an average age of onset of the disease of 38.0 years. The most frequently reported macroscopic appearance was erythema and edema for both groups: 76.4% and 87.4% people, respectively. Also, mucosal friability and granular appearance were reported in 36.2% and 44.3% of patients, respectively, predominantly in those with UC. The severe disease was argumented by the description of pseudopolyps and the existence of scars in 25.3% and 14.9% of patients, respectively. Mucosal erosions were reported in an overwhelming proportion of 75.9% of patients, with equal percentages between the two groups. The diagnosis of CD was justified by the specific "cobblestone lesions" described in 16.1% of patients, the lack of clear demarcation between lesions and normal mucosa in 67.2% of patients and the interposition of normal mucosa among lesions in 68.4% of patients. Regarding the histological features, severe forms are reported in overwhelming proportions for both groups. Data on the correlations between endoscopic severity and Mayo score reported positive statistical values. On the other hand, our study did not show a statistically significant association between predictors and BC severity, most likely translating the discontinuity of the lesions.

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ENDOSCOPIC AND HISTOLOGICAL CORRELATIONS BETWEEN ULCEROHEMORAGIC PANCOLITIS AND COLONIC CROHN'S DISEASE IN PATIENTS EVALUATED IN A TERTIARY GASTROENTEROLOGY CENTER

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OP 52

DONOR SCREENING FOR FECAL MICROBIOTA TRANSPLANTATION- RESULTS FROM THE PROCESS OF BUILDING THE FIRST ROMANIAN STOOL BANK

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KEYWORDS: fecal microbiota transplantation, donor screening, questionnaire

INTRODUCTION: Implementing fecal microbiota transplantation (FMT) and stool banking in a safe manner is demanding significant resources, considering the need for extensive donor screening. We present the preliminary results of the initial round of screening donors for building the first Romanian stool bank.

MATERIAL AND METHODS: We applied an extensive donor screening questionnaire including 71 items to third year medical students. The questionnaire was offered via an electronic platform and was designed following the current international recommendations and the Romanian guideline for implementing FMT.

RESULTS AND CONCLUSIONS: A total of 140 medical students in early year of study were invited to participate in the screening process. 64 volunteers were willing to participate and completed the screening questionnaire. A number of 8 volunteers(12,5%) successfully passed the first screening stage, based on the results of the questionnaire. 56 volunteers (87,5%) were excluded at this stage, due to recent antibiotic intake (11 students), multiple allergies (9 volunteers), recent invasive procedures (5 volunteers). 23 volunteers were excluded due to chronic pathology- 9 cases involving the gastrointestinal tract, 3 with chronic viral hepatitis and 11- other non-digestive pathology. Potential COVID-19 related aspects lead to exclusion of 24 volunteers: 20 due to respiratory symptoms or fever at the completion of the questionnaire, 1 contact with a confirmed COVID-19 case in the past 14 days prior to filling in the questionnaire and 3 cases of documented SARS CoV- 2 infection in the past 3 months. Although the screening was initiated among young volunteers, in medical training, only 45,7% of the invited students accepted to participate. Moreover, the percentage of students who qualified for proceeding to the next screening phase was only 12,5%. Rigorous donor screening for FMT is challenging, but essential for obtaining proper material for stool banking and maximizing the safety of the final product.

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OP 53

SARCOPENIA ASSESSMENT USING HANDGRIP STRENGH MEAUSREMENTS IN INFLAMMATORY BOWEL DISEASES

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KEYWORDS: inflammatory bowel disease, sarcopenia, handgrip strength

INTRODUCTION: Malnutrition and sarcopenia represent a major burden in inflammatory bowel diseases (IBD), increasing risk of morbidity and mortality. Our aim was to evaluate sarcopenia in acute IBD patients using handgrip strength (HGS) measurements.

MATERIALS AND METHODS: We analysed 25 patients hospitalized between January 2021 and Mars 2022 in Fundeni Clinical Institute, Bucharest, with ulcerative colitis (UC) or Crohn's disease (CD) flares that required biologic therapy initiation. 12 patients were revaluated at 6 months follow-up visit. Biological and clinical markers, anthropometric and HGS measurements were collected. HGS was measured using Jamar hydraulic hand dynamometer according to standard protocol and values were converted to Z scores corrected for age and gender, based on normative data. Sarcopenia cut-off points were <27kg for men and <16kg for women.

RESULTS AND CONCLUSIONS: The mean age was 37.32±10.9 years old and 52% were women. 56% of patients were diagnosed with UC and 44% with CD. 6.41±5.32 years elapsed from diagnosis. According to body mass index (BMI), 36% were underweight. 85% of participants reported 8±4.41kg weight loss in the past 3 months. Using HGS measurements, 20% of patients had Z score ≤-2 standard deviations (SD), 48% between -1 and -2 and 24% between 0 and -1. Sarcopenia was identified in 16% of patients. No correlations were found between sarcopenia and age, sex, disease duration, BMI, weight loss, previous therapy or biologic markers such as serum albumin, haemoglobin, C-reactive protein and faecal calprotectin. After 6 months of biologic therapy and clinical remission, significant weight gain (p=0.001) and HGS improvements (p=0.05) were reported.

In conclusion, weight loss and undernutrition are frequently reported during IBD flares and some patients develop sarcopenia. Clinical remission after 6 months of biologic therapy is associated with significant improvement of muscle strength and weight gain.

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OP 54

FEATURES OF PH IMPEDANCE DATA IN PATIENTS WITH ATYPICAL SYMPTOMS OF GERD

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KEYWORDS: GERD, atypical symptoms, pH-impedance

INTRODUCTION: GERD is difficult to be objectified in patients complaining of atypical symptoms.Ph-impedance evaluation brings most of the information in these cases, being able to completely exclude GERD a s a diagnosis but also in imposing invasive procedures in resolving the hidden disease.

MATERIAL&METHODS: Seventy eight patients with atypical

symptoms of GERD(chest pain, globus, cough, ENT symptoms) were investigated with ph-impedance/24h. Sandhill/Sleuth Zephr was the system used for the investigation. The ph catheter was positioned 5 cm proximally to LES, based on the manometric findings. The investigated features were: demographic findings (age,sex), frequency of atypical symptoms as main symptom, deMEester score, Acid exposure time, number of reflux episodes (acid and nonacid), index for correlations between symptoms and reflux (SAI, SAP). The main diagnosis categories were: acid reflux disease, nonacid reflux disease, hypersensitive esophagus, functional dyspepsia.

REZULTATE: Seventy eight patients were evaluated (56.4% males), with median age 46.1 years (SD 13.5). The most frequent atypical main symptoms were chest pain (38.5%) and globus (15.7%). 41% of these patients associated typical symptoms of reflux.as a secondary symptom (heartburn 15.4%, regurgitation 25.6 %). GERD was diagnosed in 28.2% of cases, the most frequently encountered diagnosis were functional dyspepsia (38.5%) and hypersensitive esophagus (33.3%). GERD was mostly diagnosed in patients with chest pain and globus as the main complaining symptom (33.3%).

CONCLUSIONS: Ph-impedance monitoring is an useful investigation in evaluating patients with atypical symptoms of GERD, making the therapeutic decision targeted and correctly driven.

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OP 55
PATIENTS WITH DEFECATION DISORDERS: ROLE OF HIGH RESOLUTION ANORECTAL MANOMETRY (HRAM)

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KEYWORDS: high resolution anorectal manometry, fecal incontinence, dyssinergia

BACKGROUND: HRAM is the gold standard investigation when evaluating patients with defecation disorders. It provides data that are useful in diagnosing different types of fecal incontinence (FI) , dyssnergia, proctalgia and Hirschprung disease, but also in pre and postoperatory evaluation of patients with rectal resections or in selecting patients suitable for biofeedback therapy.

METHODS: We retrospectively evaluated 120 patients with defecation disorders who performed HRAM between May 2017 - May 2022.

RESULTS: More than half of the patients presented for difficulty in evacuation of stool (55.83%). 59.8 % of them were diagnosed with dyssinergia. 25% complained of FI, out of which 58.33 %

were found to have hypocontractility , 33.33 % hypotonicity and 8.33% had both. 20% of patients complained both of FI and difficulty in evacuation, the majority in this group meeting the criteria for dyssinergia (overflow FI).

CONCLUSION: HRAM is an useful method in detecting patients with defecation disorders and it should be used in conjunction with endoanal ultrasound and defecography for a proper diagnosis.

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OP 56
COMBINED COVID-19 TESTING AND HEPATITIS B AND C VIRUS SCREENING INTERVENTION FOR PATIENTS PRESENTED FOR HOSPITALISATION AT AN EMERGENCY HOSPITAL, BUCHAREST, ROMANIA

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KEYWORDS: COVID-19, hepatitis B and C, pandemic

BACKGROUND The COVID-19 pandemic had a negative impact on viral hepatitis services globally. Romania's population is extremely under investigated in what concerns the diagnosis of hepatitis B, C, and D, and we took the advantage of the context created by the COVID-19 pandemic in order to promote a micro-elimination programme for the viral hepatitis.Micro-elimination programs in vulnerable groups are strongly recommended for the control and elimination of viral hepatitis.

METHODS: From may 2020 until may 2022, a group of 20736 patients that presented to our hospital for elective admission for medical or surgical diseases, has been tested for the presence of SARS-COV2, using the RT-PCR method. As well we tested those patients for the presence of HBs antigen and of HVC antibodies.

RESULTS: 1,14% and 1,12% patients from the patients have been tested positive for HCV and HBV respectively, and 4 patients of the HBV carriers were simultaneously infected with HVD as well. 49,63% were women and the rest were men. The average age was 71 years old for women and 70 years old for men. Of 237 patients tested positive for HCV, 23% of them had detectable viremia, requiring further evaluation in order to stage the liver disease and initiate the antiviral treatment. 16.8% of 234 patients tested positive for HBV were eligible for antiviral treatment.

CONCLUSION: The concomitant testing for SARS CoV-2 and for hepatitis B, C and D in the hospitals was a good exercise in screening and micro-elimination during the pandemic and despite the primary concern of COVID-19, viral hepatitis is still an ongoing silent epidemic.

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OP 57

PREVALENCE OF HELICOBACTER PYLORI AMONG DYSPEPTIC PATIENTS IN A TERTIARY CARE CENTER

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KEYWORDS: Helicobacter pylori, dyspepsia, prevalence

INTRODUCTION: Helicobacter pylori (HP) is one of the most quoted risk factors in upper gastrointestinal tract diseases. Recent data describes a falling in Helicobacter pylori prevalence rate in Romania in the last 30 years, although it is still one of the most common infections among patients (1). Our study aims to provide an updated clinical and epidemiological data of the current status of HP infection among dyspeptic patients in north-western Romania.

MATERIALS AND METHODS: We conducted a retrospective study using our tertiary care center's database in the Second Department of Internal Medicine, Emergency Clinical County Hospital, Cluj-Napoca, Romania from January 2019 to May 2022. We selected patients with dyspeptic symptoms which had indication for upper gastrointestinal endoscopy and were tested for active HP infection using histopathologic examination or rapid urease test. Out of 820 upper gastrointestinal endoscopies, 715 matched the study's criteria.

RESULTS AND CONCLUSION: Out of 715 patients, active HP infection was identified in 194 patients (27,13%). HP prevalence in men was 24,14% and 29,21% in women. Mean age at admission was 58,5±15.6 years old, distribution of age was between 18 and 90 years old. We confirmed the recent data that suggested HP prevalence in Romania as being lower compared to 30 years ago and also found lower rates of infection compared to those previously described in recent years. This decrease in prevalence in our region can be partially explained by the continuous development in socioeconomic status of the population. The infection rates described by our study are comparable to data shown by other studies in western Europe (2).

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OP 58

THE ROLE OF ESOPHAGEAL MANOMETRY IN CHOOSING ENDOSCOPIC TREATMENT IN PATIENTS WITH ACHALASIA

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INTRODUCTION: Esophageal manometry is essential for the endoscopic therapy choice in patients with achalasia but also for post-therapeutic follow-up, especially in patients treated by oral endoscopic myotomy (POEM).

OBIECTIVE: To asseses the importance of esophageal manometry in the therapeutic decision in clinical practice in patients with achalasia.

METHODS / METHODOLOGY: Between 01/2019-02/2022, the esophageal manometry was performed in 130 consecutive patients for various symptoms. We evaluated the patients diagnosed with achalasia, the type of achalasia, endoscopic treatment and post-therapeutic evolution.

RESULTS: From 130 evaluated patients, 79 (60.76%) patients were diagnosed with achalasia according to the Chicago classification. 37(46.83%) men, 69(53.16%) female. The average age was 52 years.
Achalasia type I: 31 patients (39.24%), mean integrated relaxation pressure (IRP) 53.92mmHg; type II: 38 patients (48%), mean IRP 57.50 mmHg; type III: 3 patients (3.79%), mean IRP 25.53mmHg. Non-concludente results in 7 patients (8.8%) with the suspicion of achalasia at onset.
Endoscopic treatment was performed in 70 patients (88.6%).
Endoscopic dilation: 61 patients (87.14%). Achalasia type I 26 patients (42.62%), mean 1.7 sessions (1-4); achalasia type II 33 patients (54.09%), mean 1.7 sessions (1-3) and achalasia type III 2 patients, mean 1 session.
POEM: 9 cases (12.85%): 5 patients (55.55%) with achalasia type I, mean IRP 62.94 mmHg, 4 patients (44.44%) with type II of achalasia, mean IRP 24.57 mmHg.
Follow-up at 3 months postPOEM by manometry was performed in 7 patients (77.77%). Mean IRP normalized in all patients (from 50.92 mmHg initially to 7.43 mmHg postPOEM). Achalasia type I: mean IRP significantly decreased from 62.94 mmHg to 10.26 mmHg; achalasia type II: initial IRP 24.57 mmHg decreased to 4.6 mmHg posprocedure.

CONCLUSIONS/ DISCUTIONS: The endoscopic treatment choice (dilation or POEM) was not influenced by the achalasia type. POEM is an effective therapeutic procedure with a significant reduction of IRP.

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OP 59
ENDOSCOPIC VACUUM-ASSISTED CLOSURE (E-VAC) ESOPHAGEAL PERFORATION TREATMENT

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KEYWORDS: E-VAC, esophageal perforation; mediastinitis

INTRODUCTION: Esophageal perforations are considered to be life-threatening conditions due to the potential development of mediastinitis and consecutive sepsis. Vacuum-assisted closure (VAC) techniques, a well-established treatment method for superficial infected wounds, are based on a negative pressure applied to the wound via a vacuum-sealed sponge. Endoluminal VAC (E-VAC) therapy is a novel method to close the esophageal perforation, and experience regarding esophageal applications is limited.

CASE REPORT: We present the case of a 73 years old male patient admitted in the surgery department with esophageal perforation after an endoscopic dilatation for a esophageal stenosis. The toraco-abdominal computer tomography with intravenous contrast confirmed the esophageal perforation, acute mediastinitis and bilateral pleural effusion. Using a modified double-lumen naso-gastric probe adapted to the negative pressure unit and using the same principle as in the negative pressure treatment of soft tissue wounds we have achieved positive results with successful cure of esophageal perforation. An open-pore polyurethane foam drainage tube is inserted into the cavity of the leakage or directly into the lumen (intraluminal) under direct endoscopic view based on the size of the leakage. Subsequently, a continuous therapeutic vacuum of 100–125 mmHg was produced with an electronic pump through the diverted drainage tube. The drainage tube was endoscopically changed every 7 days. The negative pressure that is built up by the pump was then transmitted evenly to the tissue through the foam. As a result of the negative pressure, the wound cavity (intracavitary) was cleaned mechanically from microorganisms and the interstitial edema is reduced. The patient had a full recovery after 29 days of hospitalization with a positive check-up at one and two months after leaving our clinic.

CONCLUSIONS: Esophageal defects and mediastinal abscesses can be treated with E-VAC therapy where endoscopic stenting may not be possible.

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OP 60
INTRADUCTAL RADIO-FREQUENCY ABLATION BEFORE BILIARY DRAINAGE IN INOPERABLE EXTRAHEPATIC CHOLANGIOCARCINOMA: SINGLE CENTER FIRST EXPERIENCE

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INTRODUCTION: Extrahepatic cholangiocarcinoma (eCCA) is a rare and aggressive group of hepatobiliary malignancies with dismal prognosis. While surgery remains the only curative treatment, most patients present with advanced disease precluding resection, palliative drainage and chemotherapy being the standard of care in these cases. Experience with intrahepatic tumors such as hepatocellular carcinoma has shown that radiofrequency ablation (RFA) is safe, efficient and results in a long-term survival benefit. We aim to evaluate the feasibility, safety and efficacy of RFA treatment coupled with complete biliary drainage, for inoperable eCCA. This report includes an initial case-series treated under an ongoing clinical protocol in our center.

MATERIALS AND METHODS: Patients with locally advanced, unresectable eCCA were evaluated for treatment. After clinical, biological and imaging work-up, a single experienced endoscopist performed ERCP with local therapy and drainage. After initial stricture evaluation, biopsies were collected and intraductal RFA treatment was performed using 25mm Habib probes (EndoHPB, EMcision) with 7W current delivered for 90s intervals, in a step-by-step fashion. Afterwards, complete biliary drainage was ensured by placing multiple plastic stents.

RESULTS AND CONCLUSIONS: Three patients were diagnosed with unresectable eCCA, due to vascular invasion or distant metastases. One patient had distal CCA, and two had perihilar CCAs. All patients underwent ERCP with intraductal RFA treatment of the entire stricture length, followed by biliary stenting. Two patients received multiple plastic stents and one received metal stents. One patient underwent a second session of RFA one month later, with subsequent plastic stenting. One patient developed mild acute cholangitis after the initial procedure, requiring broad-spectrum antibiotics and re-do ERCP with additional placing of a new plastic stent. All patients experienced mild abdominal pain, responsive to non-opioid treatment.
Our initial experience suggests that intraductal RFA is a feasible treatment for eCCA, but requires further studies to establish its safety and efficacy.

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OP 61
THE OVESCO CLIP – THE ULTIMATE LIGHT OF THE RECTAL FISTULAR TUNNEL

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KEYWORDS: fistula, OVESCO clip

INTRODUCTION: We present the case of a successfully cured iatrogenic rectal fistula after surgical resection of a rectal cancer with an OTSC clip in a 67 years old patient.

METHODS : The endoscopic treatment of the rectal fistula has been managed using a therapeutic dual-channel scope EVIS EXERA II from Olympus, series number GIF 2TH180 and an „over-the-scope clip" (OTSC) – OVESCO system.

RESULTS AND CONCLUSIONS: The patient underwent a rectoscopic evaluation which revelead the presence of an incompletely cured anastomosis at 5cm above the anal orifice. In a second time, an endoscopic intervention was established which involved the treatment of the 10/6mm rectal fistula with an OTSC clip. CO_2 was permanently used for insufflation and the vital signs of the patient were closely monitored during the procedure.

Initially, the margins of the fistula were coagulated with argon plasma coagulation (APC). The OVESCO clip was mounted at the tip of the end-viewing therapeutic scope Olympus. The thread connected between the cap and control wheel was inserted through the accessory channel. During the procedure, the bottom of the fistula was pulled up with the clip's anchore, meanwhile the rectal mucosa was aspirated. The OVESCO clip was succesfully placed. The rectal fistula was closed and the proximal colon had a large lumena.

In conclusion, the endoscopic cure of digestive fistula by using an OTSC clip – OVESCO system is an alternative method of surgery, with a lower mortality rate especially in patients with multiple comorbid diseases.

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OP 62

ZENKER'S PERORAL ENDOSCOPIC MYOTOMY (Z-POEM) FOR MANAGEMENT OF LARGE ZENKER'S DIVERTICULUM

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KEYWORDS: Zenker's diverticulum, diverticulotomy, Z-POEM

INTRODUCTION: Zenker's diverticulum (ZD) is a pulsion diverticulum between the oblique and transverse fibres of the inferior pharyngeal constrictor muscle. Dysphagia and regurgitation are the main symptoms. Endoscopic treatment is very well tolerated, associated with a short hospital stay and rare adverse events (AE). Z-POEM is a minimally invasive technique option with excellent results in the management of small to large ZD. It utilizes the third space to create a tunnel to facilitate complete visualization of the septum and hence cutting it entirely [1-4].

THE AIM of this paper is to present our experience on Z-POEM as a very useful and highly efficient treatment option of large ZD.

METHODS/METHODOLOGY: This was a retrospective study including adult patients with large ZD, defined as >=4 cm, treated by Z-POEM technique in our private centre between 01/2021 and 02/2022. The procedures were performed under deep sedation with orotracheal intubation. The primary goal was to achieve clinical success. Secondary goals were technical success, rate of recurrence and AE.

RESULTS:4 patients (male 75%, mean age 69±5yr) underwent Z-POEM for treatment of large ZD (mean size 48.7 mm). The technique was successfully performed in all cases. The mean procedure time was 32.5±7.5 minutes. Clinical follow-up was performed at 1 month remote and at 6 months. Clinical success was achieved in all patients. Endoscopic follow-up was performed at 6 months. In one case a residual septum was seen and mild symptoms were present. Intentional incision of the mucosal flap, following exposure and division of the septum was performed in this case. No adverse events intra or periprocedural were reported. Post procedure length of stay was 1 day.

CONCLUSIONS/DISCUSSIONS:Z-POEM is an excellent endoscopic treatment option even for the large ZD and even in elderly and comorbid patients.

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HEPATITIS B AND C VIRUS MICRO-ELIMINATION APPROACH IN VULNERABLE POPULATION-IMPRISONED POPULATION IN THE SOUTH REGIONS OF ROMANIA

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KEYWORDS: hepatitis B and C, vulnerable population, detainees, micro-elimination

BACKGROUND: To reach the 2030 hepatitis C virus elimination goal set by the WHO, it is necessary to implement strategies adapted to the population groups that are higher risk, such as prisoners. Romania was one of the European countries with the highest prevalence of HCV and HBV infection, viral hepatitis being a public health issue. The implementation of screening projects among detainees is part of the global campaign to eliminate HBV and HCV infection. Our goal is to increase access to diagnostic and treatment services for vulnerable groups - detainees and staff employed in detention units.

METHOD: This project was initiated in pandemic 2021 and has been launched in 12 detention institutions from Romania (south and northeast), with the awareness campaigns on the infections. Mobile medical teams (doctors, nurses, psychologists, students) screened in prisons for presence of HCV and HBV infection, using rapid blood tests. After that we started the process of assessment and staging the liver disease and we initiate the evaluation of the patients in pre-order to initiate antiviral therapy.

RESULTS: We tested 6,630 male detainees from 10,000, of whom 9.92% were tested HCV positive, 2.97% HBV positive and less than 1% HBV and HCV positive. Of those, 11,67% were under 25 years old, and 8,02% over 55 years old. The target group compliance was satisfaying among detainees, but lower among prison staff. 0,75% of detainees are chronic hemodialyzed, 4.93% received blood transfusions at least once in their lifetime, 29.56% underwent one or more surgeries, 46.18% had tattoos, and 42,75 % of them used IV drugs.

CONCLUSION: Treating prison populations will reduce the overall prevalence of HCV and HBV and the number of new infections, making prisoners an important target group for achieving viral hepatitis elimination

PRELIMINARY RESULTS OF THE "FREE C" PROJECT FOR TESTING, EVALUATING AND TREATING MALE DETAINEES FOR HCV AND HBV INFECTION IN 12 PENITENTIARIES IN ROMANIA

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KEYWORDS: detainees, HCV and HBV infections, prison

BACKGROUND: Viral hepatitis B and C are extremely prevalent in prison settings. In prisons, owing to their cohabitation in a closed environment for a long period of time and exposure to various risk factors makes them more vulnerable to the infection.

METHODS: Starting april 2021, complex teams (doctors, nurses, psychologists and medical stu-dents) from 3 university centers (Bucharest and Iasi) were actively involved in testing for viral hepatitis B and C. Until now, 6680 male detainees from 12 penitentiaries in southern and north-east Romania were tested. Rapid blood tests for B and C virus were used.

RESULTS: During our study, we tested 6,630 male detainees, of whom 9.92% were tested HCV positive, 2.97% HBV positive and less than 1% HBV and HCV positive. Of those, 11,67% were under 25 years old, and 8,02% over 55 years old. 0,75% of detainees are chronic hemo-dialyzed, 4.93% received blood transfusions at least once in their lifetime, 29.56% underwent one or more surgeries, 46.18% had tattoos, and 42,75 % of them used IV drugs.
We are in the process of assessment and staging the liver disease and we started evaluating pa-tients in pre-in order to initiate antiviral therapy. Until now, in 2 out of 12 prisons where we tested patients positive for HBV and HCV, we identified 68.18% detainees with detectable vi-remia, 37.87% with F0, 45.45% with F1-F2 and the rest with F3-F4.

CONCLUSION: High rates of detection and treatment can be achieved in the prison system. Pri-sons provide an opportunity to engage marginalised individuals into healthcare. Treating prison populations will reduce the overall prevalence of viral hepatitis and the number of new infec-tions, making prisoners an important target group.

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PREDICTOR FACTORS OF LOSS OF RESPONSE TO ANTI-TNF AGENTS IN INFLAMMATORY BOWEL DISEASE. EXPERIENCE IN A TERTIARY HOSPITAL CENTER

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KEYWORDS: inflammatory bowel disease, anti-TNF agents, loss of response

BACKGROUND: Anti-TNF-α agents have revolutionized the treatment of inflammatory bowel disease (IBD), altering their natural history, but the effectiveness of treatment is compromised by high rates of loss of response annually (13% -21% per patient-year).

AIMS: To identify predictors of the short- and long-term benefits of anti-TNF-α therapy in patients with IBD, including loss of response.

METHODS: This was a retrospective study of patients with inflammatory bowel disease who received anti-TNFα for at least 12 months between 2010 and 2022. We studied the incidence of loss of response, and predictors of loss of response were identified by Cox regression analysis. Secondary outcomes included general discontinuation of anti-TNFα and increased dose.

RESULTS: We included 72 patients with IBD who received regular treatment with any anti-TNF agent (Infliximab, Adalimumab). Loss of response occurred in 19% of cases with anti-drug antibodies detected in 27% of cases. In the first year, the incidence of loss of response was 6.95% compared to 13.89% after four years of treatment (P <0.001). Predictors of loss of response included ulcerative colitis (versus CD, adjusted risk ratio [aHR] 1.47, 95% CI 1.10-2.05), male sex (aHR 0.47, 95% CI 0.28- 0.68), high CRP (aHR 1.48, 95% CI 1.05-2.26) and low albumin levels at baseline (aHR 0.32, 95% CI 0.14-0.4).

CONCLUSION: Loss of response to the anti-TNF agent in IBD is correlated with disease phenotype, male gender, high CRP, and low albumin.

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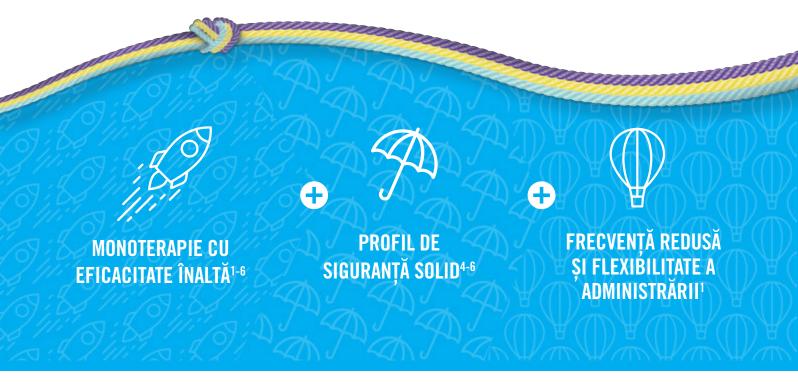Y. Gharbi

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MAVIRET este indicat pentru tratamentul hepatitei cronice cu virus C la adulţi şi la adolescenţi cu vârsta de 12 ani şi peste. Pentru informaţii complete de prescriere, vă rugăm să consultaţi Rezumatul Caracteristicilor Produsului.

*rata de vindecare = răspuns viral susţinut (RVS12), definit ca ARN-VHC nedetectabil la 12 săptămâni de la terminarea tratamentului acesta fiind obiectivul primar în toate studiile.[1]

†pacienţi experimentaţi = pacienţii trataţi anterior pentru hepatită cronică cu virus C care au avut eşec la tratamentul cu peg-IFN + ribavirina+/-sofosbuvir sau sofosbuvir+ribavirina

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1. Rezumatul caracteristicilor produsului Stelara®, noiembrie 2021. 2. Feagan BG et al. N Eng J Med. 2016; 375: 1946-1960. 3. Danese S, et al. Abstract DOP54 presented at European Crohn's and Colitis Organisation (ECCO) 14th Congress, 4. Pauwels A, et al. Poster P0414 presented at European Crohn's and Colitis Organisation (ECCO) 14th Congress, 6-9 March 2019, Copenhagen, Denmark. 5. Hanauer SB, et al. J Crohns Colitis. 2020; 14: 23-32. 6. Sands BE, et al. N Eng J Med. 2019; 381: 1201-1214. 7. Sandborn WJ et al. United European Gastroenterology Week 2020 (abstract ID A-1150-0059-01563).

janssen ✚ **Immunology**

PHARMACEUTICAL COMPANIES OF *Johnson&Johnson*

1.Denumirea comercială a medicamentului STELARA 45 mg soluție injectabilă, 45 mg ,90 mg soluție injectabilă în seringă preumplută. **2. Compoziția calitativă și cantitativă** Fiecare flacon conține ustekinumab 45 mg 0,5 ml soluție. Fiecare seringă preumplută conține ustekinumab 45 mg în 0,5 ml soluție, respectiv 90 mg în 1 ml soluție **3. Forma farmaceutică** Soluție injectabilă **4.1 Indicații terapeutice Psoriazis în plăci** STELARA este indicat pentru tratamentul pacienților adulți cu psoriazis în plăci, forme moderate până la severe, care au prezentat fie rezistență, fie contraindicații, fie intoleranță la alte terapii sistemice incluzând ciclosporina, metotrexatul sau PUVA (psoralen și ultraviolete A). **Psoriazis în plăci la copii și adolescenți** STELARA este indicat pentru tratamentul pacienților copii și adolescenți cu vârsta de 6 ani și peste, cu psoriazis în plăci, forme moderate până la severe, care nu obțin un control adecvat sau prezintă intoleranță la alte terapii sistemice sau fototerapii. **Artrita psoriazică** STELARA, în monoterapie sau în asociere cu MTX este indicat pentru tratamentul pacienților adulți cu artrită psoriazică activă care au avut un răspuns insuficient la tratamentul anterior cu medicamente antireumatice non-biologice modificatoare ale evoluției bolii. **Boala Crohn** STELARA este indicat în tratamentul pacienților adulți cu boală Crohn activă, moderată spre severă, care au avut un răspuns necorespunzător, au încetat să mai răspundă sau au dezvoltat intoleranță fie la terapiile convenționale, fie la antagoniști TNFα, fie aceste terapii le sunt contraindicate din punct de vedere medical. **Colita ulcerativă** STELARA este indicat în tratamentul pacienților adulți cu forme moderate până la severe de colită ulcerativă activă, care au avut un răspuns inadecvat, au încetat să mai răspundă la tratament sau au dezvoltat intoleranță fie la tratamentele convenționale, fie la tratamentele biologice, fie au contraindicații medicale la aceste terapii **4.2 Doze și mod de administrare**. **Psoriazis în plăci** O doză inițială de 45 mg administrată subcutanat, urmată de o doză de 45 mg 4 săptămâni mai târziu, și apoi la fiecare 12 săptămâni. La pacienții care nu au răspuns după 28 săptămâni de tratament trebuie luată în considerare întreruperea tratamentului. Pacienți cu greutate >100 kg Doza inițială este de 90 mg administrată subcutanat, urmată de o doză de 90 mg 4 săptămâni mai târziu, și apoi la fiecare 12 săptămâni. **Psoriazis în plăci la copii și adolescenți** (cu vârsta de 6 ani și peste) Doza recomandată de STELARA în funcție de greutatea corporală. STELARA trebuie administrat în Săptămânile 0 și 4 și ulterior o dată la 12 săptămâni. Trebuie avută în vedere întreruperea tratamentului la pacienții care nu prezintă niciun răspuns până la 28 de săptămâni de tratament. Nu a fost stabilită siguranța și eficacitatea STELARA la copii cu psoriazis cu vârsta mai mică de 6 ani sau la copii cu artrită psoriazică cu vârsta mai mică de 18 ani. **Boală Crohn și colită ulcerativă** Prima administrare subcutanată de 90 mg STELARA trebuie să aibă loc în săptămâna 8 după doza intravenoasă (vezi RCP extins). După aceasta, se recomandă administrarea dozei la interval de 12 săptămâni. Pacienții care pierd răspunsul la administrarea la interval de 12 săptămâni pot beneficia de o creștere a frecvenței administrării la interval de 8 săptămâni Trebuie luată în considerare întreruperea tratamentului la pacienții care nu prezintă nicio dovadă de beneficii terapeutice după 16 săptămâni de la administrarea dozei de inducție IV sau după 16 săptămâni de la trecerea la doza de întreținere administrată la interval de 8 săptămâni. Vârstnici (≥ 65 ani) Nu este necesară ajustarea dozei la pacienții vârstnici. Insuficiența renală și hepatică STELARA nu a fost studiat la aceste grupuri de pacienți. Nu pot fi făcute recomandări privind dozajul. **4.3 Contraindicații** Hipersensibilitate la substanța activă sau la oricare dintre excipienți. Infecție activă, cu importanța clinică.**4.4 Atenționări și precauții speciale pentru utilizare** Infecții Ustekinumab poate avea potențialul de a crește riscul infecțiilor și de a reactiva infecțiile latente. Utilizarea medicamentului STELARA la pacienții cu infecții cronice sau cu antecedente de infecții recurente trebuie făcută cu precauție. Au fost raportate infecții oportuniste la pacienții tratați cu ustekinumab. STELARA nu trebuie administrat pacienților cu forme active de tuberculoză. Reacții de hipersensibilitate respiratorii și sistemice. *Sistemice* Dacă apare o reacție anafilactică sau o altă reacție de hipersensibilitate gravă, trebuie instituită o terapie adecvată iar administrarea medicamentului STELARA trebuie întreruptă imediat. *Respiratorii.* După aprobarea de punere pe piață au fost raportate cazuri de alveolită alergică, pneumonie eozinofilică și pneumonie organizată noninfecțioasă. *Vaccinări* Se recomandă ca vaccinurile virale sau bacteriene vii să nu fie administrate concomitent cu STELARA. Înainte de vaccinarea cu vaccinuri vii virale sau bacteriene, tratamentul cu STELARA trebuie întrerupt timp de cel puțin 15 săptămâni după ultima doză și poate fi reluat cel mai devreme la 2 săptămâni după vaccinare. Pacienții care utilizează STELARA pot primi concomitent vaccinuri inactivate sau vaccinuri atenuate. **4.6 Fertilitatea, sarcina și alăptarea** *Femeile aflate la vârsta fertilă* trebuie să utilizeze metode contraceptive eficace în timpul tratamentului și până la 15 săptămâni după întreruperea acestuia. *Sarcina* Nu sunt disponibile date adecvate rezultate din utilizarea ustekinumab la femeile gravide. *Alăptarea.* Datele limitate din literatura de specialitate publicată arată că ustekinumab se excretă în laptele matern uman în cantități foarte mici. Nu se cunoaște dacă ustekinumab se absoarbe sistemic după ingestie **4.8 Reacții adverse** Cele mai frecvente reacții adverse (> 5%) raportate în fazele controlate ale studiilor clinice efectuate cu ustekinumab la pacienții adulți cu psoriazis, artrită psoriazică, boala Crohn și colită ulcerativă au fost nazofaringita și cefaleea. Majoritatea au fost considerate a fi ușoare și nu au necesitat întreruperea tratamentului cu medicamentul studiat. Pentru copii și adolescenți evenimentele adverse raportate au fost similare celor observate în studiile anterioare la adulți cu psoriazis în plăci. Cea mai gravă reacție adversă raportată pentru STELARA a fost de tipul reacțiilor grave de hipersensibilitate, inclusiv anafilaxie. Raportarea reacțiilor adverse suspectate Este importantă raportarea reacțiilor adverse suspectate după autorizarea medicamentului. Profesioniștii din domeniul sănătății sunt rugați să raporteze orice reacție adversă suspectată prin intermediul sistemului național de raportare: România, Agenția Națională a Medicamentului și a Dispozitivelor Medicale, Str. Aviator Sănătescu nr. 48, sector 1, București 011478- RO, Tel: + 4 0757 117 259, Fax: +4 0213 163 497, e-mail: adr@anm.ro **5.1 Proprietăți farmacodinamice** Grupa farmacoterapeutică: imunosupresoare, inhibitori de interleukină, codul ATC: L04AC05. **6.4 Precauții speciale pentru păstrare** A se păstra la frigider (2°C – 8°C). A nu se congela. A se păstra flaconul în ambalajul secundar pentru a fi protejat de lumină. **7. DEȚINĂTORUL AUTORIZAȚIEI DE PUNERE PE PIAȚĂ** Janssen-Cilag International NV, Turnhoutseweg 30, 2340 Beerse, Belgia. **8. NUMĂRUL AUTORIZAȚIEI DE PUNERE PE PIAȚĂ** STELARA 45 mg soluție injectabilă. EU/1/08/494/005 **9. DATA PRIMEI AUTORIZĂRI** 16 ianuarie 2009. **DATA ULTIMEI AUTORIZĂRI** 19 septembrie 2013 **10. DATA REVIZUIRII TEXTULUI** 11/2021. Acest medicament se eliberează pe bază de prescripție medicală restrictivă: PR. Pentru informații complete de prescriere, vă rugăm să citiți Rezumatul caracteristicilor produsului STELARA® (http://www.ema.europa.eu). Acesta este un material promoțional destinat exclusiv profesioniștilor din domeniul sănătății.

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Indicații terapeutice Epclusa este indicat pentru tratamentul infecției cronice cu virusul hepatitei C (VHC) la pacienți cu vârsta de 3 ani și peste .

Doze și mod de administrare Adulți - un comprimat de 400 mg/100 mg administrat administrat pe cale orală, o dată pe zi, cu sau fără alimente. Copii și adolescenți cu vârsta cuprinsăîntre 3 și < 18 ani, indiferent de genotipurile de VHC - ≥ 30 kg un comprimat de 400 mg/100 mg o dată pe zi sau două comprimate de 200 mg/50 mg de două ori pe zi; 17-30 kg un comprimat de 200 mg/50 mg o dată pe zi.
Durata Pacienți fără ciroză hepatică și pacienți cu ciroză hepatică compensată: 12 saptamani. Poate fi luată în considerare adăugarea de ribavirină pentru pacienții cu infecție de genotip 3, cu ciroză hepatică compensată. Pacienți cu ciroză hepatică decompensată: Epclusa + ribavirină timp de 12 săptămâni. Pacienți la care o schemă de tratament conținând un medicament care țintește NS5A a înregistrat un eșec: poate fi luată în considerare asocierea Epclusa + ribavirină timp de 24 săptămâni. La copii si adolescenti durata tratamentului este de 12 saptamani Insuficiență renală Nu este necesară ajustarea dozei de Epclusa la pacienți cu insuficiență renală ușoară sau moderată.

Siguranța și eficacitatea Epclusa nu au fost evaluate la pacienții cu insuficiență renală severă (rata estimată de filtrare glomerulară [ReFG] < 30 ml/min și 1,73 m2) sau cu insuficiență renală în stadiu terminal (IRST), care necesită hemodializă (vezi pct. 5.2). *Insuficiență hepatică* Nu este necesară ajustarea dozei de Epclusa la pacienții cu insuficiență hepatică ușoară, moderată sau severă (clasele A, B sau C conform clasificării CPT). Siguranța și eficacitatea Epclusa au fost evaluate la pacienți cu ciroză hepatică clasa B conform clasificării CPT, dar nu și la pacienți cu ciroză hepatică clasa C conform clasificării CPT. *Copii* Siguranța și eficacitatea Epclusa la copii sub 3 ani nu au fost încă stabilite. *Vârstnici* Nu este necesară ajustarea dozei la pacienții vârstnici.

Contraindicații Hipersensibilitate la substanțele active sau la oricare dintre excipienții. Utilizarea concomitentă cu inductori puternici ai gp P și ai CYP (rifampicină, rifabutină, sunătoare [Hypericum perforatum], carbamazepină, fenobarbital și fenitoină). Atenționări și precauții speciale pentru utilizare Epclusa nu trebuie administrat concomitent cu alte medicamente care conțin sofosbuvir. Au fost observate cazuri cu risc vital de bradicardie severă și bloc la nivel cardiac atunci când schemele de tratament care conțin sofosbuvir se utilizează cu amiodarona administrată concomitent. În general, bradicardia a apărut în decurs de câteva ore până la câteva zile, dar cazuri cu o durată mai mare până la debut au fost observate mai ales până la 2 săptămâni după începerea tratamentului pentru VHC. Amiodarona trebuie utilizată la pacienții cărora li se administrează Epclusa numai atunci când alte tratamente alternative cu medicamente antiaritmice nu sunt tolerate sau sunt contraindicate. Dacă se consideră că este necesară utilizarea concomitentă a amiodaronei, se recomandă ca pacienții să fie supuși unei monitorizări cardiace în condiții de spitalizare în primele 48 ore de administrare concomitentă, după care monitorizarea în ambulatoriu sau automonitorizarea frecvenței cardiace trebuie să aibă loc zilnic, cel puțin în primele 2 săptămâni de tratament. Din cauza timpului lung de înjumătățire plasmatică al amiodaronei, monitorizarea cardiacă specificată mai sus trebuie efectuată și în cazul pacienților care au întrerupt tratamentul cu amiodaronă în ultimele luni și care urmează să înceapă tratamentul cu Epclusa. Toți pacienții tratați concomitent cu sau cărora li s-a administrat recent amiodaronă trebuie avertizați cu privire la simptomele asociate bradicardiei și blocului la nivel cardiac și trebuie îndrumați să solicite de urgență sfatul medicului în cazul în care manifestă astfel de simptome. Infecția concomitentă cu VHC/VHB (virusul hepatitic B) În timpul sau după tratamentul cu medicamente antivirale cu acțiune directă au fost raportate cazuri de reactivare a virusului hepatitic B (VHB), unele dintre acestea fiind letale. Screeningul pentru VHB trebuie să fie efectuat la toți pacienții înainte de începerea tratamentului. Pacienții cu infecție concomitentă cu VHC/VHB prezintă riscul de reactivare a VHB și, în consecință, trebuie monitorizați și tratați conform ghidurilor clinice curente. Datele referitoare la siguranță sunt limitate în cazul pacienților cu insuficiență renală severă (RFG < 30 ml/minut și 1,73 m2) și cu IRST, la care este necesară hemodializa. Epclusa poate fi utilizat la acești pacienți, fără ajustarea dozei, în situația în care nu sunt disponibile alte opțiuni de tratament relevante. Utilizare concomitentă cu inductori moderați ai gp-P și/sau inductori moderați ai CYP. Nu se recomandă administrarea concomitentă a acestor medicamente împreună cu Epclusa. Utilizare concomitentă cu anumite scheme de tratament antiretroviral pentru HIV s a demonstrat că Epclusa determină creșterea expunerii la tenofovir, în special atunci când se utilizează împreună cu o schemă de tratament pentru HIV, care conține fumarat de tenofovir disoproxil și un medicament care potențează acțiunea farmacocinetică (ritonavir sau cobicistat). Siguranța administrării de fumarat de tenofovir disoproxil în condițiile administrării de Epclusa și un medicament care potențează acțiunea farmacocinetică nu a fost stabilita. Utilizarea la pacienții cu diabet Persoanele cu diabet pot prezenta un control glicemic ameliorat, care poate duce la hipoglicemie simptomatică, după inițierea tratamentului pentru VHC cu un antiviral cu acțiune directă. La pacienții cu diabet care încep tratamentul cu un antiviral cu acțiune directă, valorile glucozei trebuie monitorizate cu atenție, în special în primele 3 luni, iar medicația lor pentru diabet trebuie modificată după caz. Ciroză hepatică clasa C conform clasificării CPT: siguranța și eficacitatea Epclusa nu au fost evaluate la pacienții cu ciroză hepatică clasa C conform clasificării CPT, precum si la pacienții post-transplant hepatic.

Interacțiuni cu alte medicamente și alte forme de interacțiune Deoarece Epclusa conține sofosbuvir și velpatasvir, la utilizarea Epclusa poate apărea oricare dintre interacțiunile care au fost identificate separat pentru fiecare dintre aceste substanțe active. Trebuie consultat RCP pentru lista completa de interacțiuni. Coadministrarea cu IPP nu este recomandata. Daca totuși este necesara se recomanda asocierea Epclusa cu alimentele si la un interval de 4 ore, inainte de administrarea IPP, la o doza maxima comparabila cu 20 mg de omeprazol. Pacienții tratați cu antagoniști ai vitaminei K - este recomandată o monitorizare atentă a valorilor INR (International Normalised Ratio) din cauza faptului că pot să apară modificări ale funcției hepatice în cursul tratamentului cu Epclusa.

Fertilitatea, sarcina și alăptarea Ca măsură de precauție, nu este recomandată utilizarea de Epclusa în timpul sarcinii si alăptării.

Efecte asupra capacității de a conduce vehicule și de a folosi utilaje Epclusa nu are nicio influență sau are influență neglijabilă asupra capacității de a conduce vehicule sau de a folosi utilaje. Reacții adverse Trebuie consultat RCP pentru informații complete despre reacțiile adverse. În studiile clinice, cefaleea, fatigabilitatea și greața au fost cele mai frecvente (incidență ≥ 10%).

Concluzii științifice
Având în vedere raportul de evaluare al PRAC privind raportul studiului final PASS impus non-intervențional pentru medicamentul/medicamentele menționate mai sus, concluziile științifice ale CHMP sunt următoarele:
- Studiul observațional și revizuirea sistematică/meta-analiza nu au indicat un risc crescut de recurență a carcinomului hepatocelular la pacienții tratați cu antivirale cu acțiune directă.
- Angajamentul studiului DAA-PASS este considerat îndeplinit și medicamentele respective trebuie scoase din lista cu medicamentele care necesită monitorizare suplimentară.
Prin urmare, având în vedere datele disponibile privind raportul studiului final PASS, PRAC a considerat că modificările aduse informațiilor referitoare la medicament sunt justificate. CHMP este de acord cu concluziile științifice formulate de PRAC.

Motive pentru modificarea condițiilor autorizației/autorizațiilor de punere pe piață
Pe baza concluziilor științifice pentru rezultatele studiului privind medicamentul/medicamentele menționat(e) mai sus, CHMP consideră că raportul beneficiu-risc pentru acest(e) medicament(e) este neschimbat, sub rezerva modificărilor propuse pentru informațiile referitoare la medicament.
CHMP consideră că trebuie modificate condițiile autorizației/autorizațiilor de punere pe piață a medicamentului/medicamentelor menționat(e) mai sus.

Raportarea reacțiilor adverse suspectate. Profesioniștii din domeniul sănătății sunt rugați să raporteze orice reacție adversă suspectată prin intermediul sistemului național de raportare catre Agenția Națională a Medicamentului și a Dispozitivelor Medicale, Str. Aviator Sănătescu nr. 48, sector 1, București 011478- RO, Tel: + 4 0757 117 259, Fax: +4 0213 163 497, e-mail: adr@anm.ro

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NUMĂRUL(ELE) AUTORIZAȚIEI DE PUNERE PE PIAȚĂ EU/1/16/1116/001; EU/1/16/1116/002

DATA PRIMEI AUTORIZĂRI 06 iulie 2016 **SAU A REÎNNOIRII AUTORIZAȚIEI**: 22 martie 2021.

DATA REVIZUIRII TEXTULUI 05/2022.

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