

**Results:** The most common complication was refractory ascites (20.2%), followed by portosystemic encephalopathy (12.5%). The mean number of admissions per patient was  $1.37 \pm 3.42$ . Variceal hemorrhage was the complication with longest median length of stay (18 days), followed by hepatorenal syndrome (13.5 days). Hepatorenal syndrome was the costliest complication (mean cost of \$3565), followed by spontaneous bacterial peritonitis (\$2576) and variceal hemorrhage (\$1530).

**Conclusions:** The burden of chronic liver disease includes a great cost for health systems. In addition, it is likely to be even greater as a result of the insidious course of the disease.

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### P-18 PREVALENCE AND EPIDEMIOLOGICAL CHARACTERISTICS OF INFECTIONS IN PATIENTS WITH CHRONIC LIVER DISEASE: RETROSPECTIVE ANALYSIS FROM A GENERAL HOSPITAL IN MONTERREY, NUEVO LEON, MEXICO

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**Introduction:** Chronic liver disease (CLD) associated with infections has a high short-term mortality. Infections are the first cause of mortality in CLD patients. The information of these patients in Mexico is limited.

**Objective:** Identify the prevalence of infections in CLD patients in a hospital in Monterrey, Mexico.

**Methods:** Data was obtained from one hospital (August 2017–October 2019). Patients  $\geq 18$  years old with CLD diagnosis by clinical, biochemical, imaging and/or histological criteria were included. Exclusion criteria were patients with incomplete information, antibiotic use  $< 7$  days before hospitalization, cancer, or use of immunosuppressant drugs.

Data included demography, clinical presentation, diagnosis, prognostic scores (Child-Turcotte-Pugh -CTP- and the Model for End-Stage Liver Disease-Sodium -MELD-Na-), infections, and in-hospital mortality. Infectious Diseases Society of America (IDSA) criteria were used to define infections.

Descriptive statistics, Chi squared test, Mann-Whitney U test, and Logistic regression were used to analyze data.

**Results:** 393 patients aged 55 years old ( $54.6 \pm 11.4$ ) were included, 81% male patients. 79% were diagnosed with CLD in hospitalization. 55% were CTP Class C and 69% had a MELD-Na  $> 17$ .

92 patients had an infection. 76% were community acquired. The main cause of infections was spontaneous bacterial peritonitis (30.4%). 212 cultures were obtained, but only 22 isolated a microorganism; 50% reported E. Coli, and 54% were multidrug-resistant bacteria.

Mortality was 25%. Patients with infections had a higher mortality. Infections were related with a worst prognostic score: CTP class C (OR 3.78, CI 95% [1.10–12.93];  $p=0.034$ ); MELD-Na  $> 17$  (OR 2.07, CI 95% [1.16–3.68];  $p=0.013$ ). Infections had a higher risk of death (OR 4.38, CI 95% [2.41–6.75];  $p<0.0001$ ).

**Conclusion:** Prevalence of infections in CLD patients is similar to other countries. These infections are associated with a worst CLD prognosis and have a four-fold risk of mortality.

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### P-19 ANTI-RIBOSOMAL P (ANTI-P) ANTIBODIES IN AUTOIMMUNE HEPATITIS PATIENTS

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**Background and Aims:** Few studies have investigated the occurrence of anti-ribosomal P antibody (Anti-P) in autoimmune hepatitis (AIH) with controversial results. The rationale to evaluate this occurrence is based on the partial overlap of clinical and pathological features of AIH and systemic lupus erythematosus (SLE), for which anti-P is a diagnostic biomarker. In face of the controversial results obtained, this study aimed to contribute by evaluating the frequency of anti-P determined by two different immunoassays in a cohort of AIH patients.

**Method:** One-hundred seventy-seven patients with AIH confirmed diagnosis were screened, and 142 were evaluated for the presence of anti-P antibodies. Samples were analyzed by two different immunoassays, namely enzyme-linked immunosorbent assay (ELISA) and chemiluminescence (CLIA). Positive samples were submitted to western blot assay (WB). A comparison was done with a group of 60 SLE patients.

**Results:** Anti-P was found in 5/142 AIH patients (3.5%) using CLIA. No AIH patient was anti-P-positive using ELISA. Among the five positive AIH samples, one was negative, two weakly positive, and two were anti-P-positive in WB. Anti-P was found in 10/60 SLE patients (16.7%) and presented higher CLIA units than AIH samples.

**Conclusion:** Anti-P antibody was confirmed to occur in AIH at a low frequency and serum levels were lower than those observed in SLE. This marker seems not to be useful as a diagnostic tool for AIH patients.

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### P-20 METABOLIC ASSOCIATED FATTY LIVER DISEASE: FIBROSIS AND SARCOPENIA FREQUENCIES

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**Introduction:** Metabolic fatty liver (MAFLD) is a global health problem with a prevalence of about 25%. It consists in a multisystemic disease correlated with many others comorbidities. Progressive disease or steatohepatitis is associated with worst outcomes, more inflammation and fibrosis. Liver fibrosis stratifies patients with more

propensity for cardiovascular deaths and cirrhosis. Nowadays, elastography is able to detect safely fibrosis. Risk factors identification which are associate with progressive disease and cirrhosis complications allow adequate treatment for MAFLD.

**Objectives:** Estimate and evaluate liver fibrosis and sarcopenia in MAFLD present in high risk patients – obesity, metabolic syndrome and diabetes 2 type diseases. Identification of risk factors for progressive disease.

**Methods:** All patients enrolled were submitted to clinical, antropometric assessment and blood tests. The non-invasive assessment of MAFLD and fibrosis stage was performed by ultrasound, FLI-score and elastography. Sarcopenia was evaluated by Dual energy X-ray absorptiometry (DXA) – Baugarten index- and by bioimpedancy. Numerical variables were analyzed by Mann-whitney and Anova tests. Categorical variables were analysed by Fischer's exact test.

**Results:** 42 patients were included until now, 87% women e 13% men; Median age was 66 (52-61) years. Three patients did not had steatosis(n=26). Eight participants (31%) had fibrosis >=2. One patient was classified as sarcopenic, Median IMC was 31,8 Kg/m<sup>2</sup> (22,8-44); Coefficient attenuation parameter (CAP), ferritin and D vitamin were not different between the fibrosis and non fibrosis groups. Fibrosis was associated with higher AST, p value of 0,04; ALT and fibrosis was not correlated, p value of 0,07.

**Conclusion:** All considerations must be taken with caution because of the small group of patients. The steatosis high risk study population: metabolic syndrome, obesity and diabetes type 2 patients had a higher fibrosis frequency than in general population, 31%, and no correlation with sarcopenia in this small population. The AST level was correlated with fibrosis in steatosis group patients.

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#### P-21 BONE MASS, VITAMIN D LEVELS AND NONALCOHOLIC FATTY LIVER DISEASE

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**Background and Aims:** Nonalcoholic fatty liver disease (NAFLD) is a multisystemic disease that can affect several systems and tissues. Recently, low bone mass density (BMD) and vitamin D deficiency were been associated with the severity of NAFLD and there has been significant scientific interest in the relationship between vitamin D, BMD and NAFLD. This study aimed to assess the status of vitamin D and BMD in liver fibrosis and in NAFLD.

**Methods:** Adults without vitamin D replacement and with established risk factors for the development of NAFLD were selected, such as: obesity, dyslipidemia, type 2 diabetes and metabolic syndrome. The non-invasive assessment of NAFLD and degrees of fibrosis was performed by ultrasound (US-FLI) and ultrasound elastography. BMD was measured with dual energy X-ray absorptiometry (DXA). The 25 (OH)D3 was determined using chemiluminescent immunoassay technology.

**Results:** A total of 42 participants were enrolled and hepatic steatosis was present in 24. All data are presented as median (IQR) or n (%). Age 66 (52-61) years, 36 (85.7%) were women. The median of 25 (OH)D3 levels was 21 (18-28) ng/mL. The frequency of liver fibrosis, low levels of vitamin D (< 20 ng/mL) and low BMD was, respectively:

29%, 44% and 61%. We found 5.5% osteoporosis, 50% osteopenia and 5.5 low BMD for age.

**Conclusion:** The frequency of low BMD and low Vit D levels is higher in the population with steatosis and high incidence of liver fibrosis than in the general Brazilian population.

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#### P-22 ANALYSIS OF FEATURES ASSOCIATED WITH DIFFICULTY IN SCREENING AND EARLY DIAGNOSING HEPATOCELLULAR CARCINOMA IN RISK PATIENTS

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**Introduction:** Several barriers to access hepatocellular carcinoma (HCC) screening in Brazil and the large number of patients diagnosed at advanced disease stages, without prospect of curative treatment, are indicative that access to early HCC diagnosis and treatment is not equitably guaranteed for entire population.

**Aims:** The aim of the current study is to investigate the determining factors hindering the access to HCC screening and early diagnosis, based on abdominal ultrasound (US) application to risk patients.

**Methods:** Descriptive and longitudinal study carried out in reference outpatient clinic, based on questionnaire application to patients at risk for HCC.

**Results:** Fifty patients (mean age of 59 years), whose main disease etiology lied on alcohol, and hepatitis B and C viruses, were evaluated; 76% of them underwent US monitoring on a regular basis and 58% understood the importance of undergoing such an examination. The main barriers to access examination comprised scheduling (25%) and financial issues (12.5%). Eight patients were diagnosed with HCC (16% of sample), 50% of them were diagnosed at the first consultation and 37.50% did not know about the importance of such diagnosis (Table); curative treatment was no longer applicable to 62.50% of these patients.

**Conclusion:** It is worth emphasizing the essential role played by half-yearly screening in the early diagnosis and curative treatment of HCC. It is necessary developing policies focused on identifying and placing HCC patients at risk in health surveillance programs, as well as on providing greater access to, and education about the important role played by these exams.

**Table** Analysis of epidemiological profile of patients diagnosed with HCC in a hepatology service.

Analyzed variables	Groups		All cases (n = 8)
	Non-cirrhotic (n = 2)	Cirrhotic (n = 6)	
<b>Male sex n (%)</b>	2 (25)	1 (12.5)	3 (37.5)
<b>Age (mean, in years)</b>	47.5	61.6	58.1
<b>Chronic liver disease etiology n (%)</b>			
Alcohol		2 (25)	2 (25)
HBV	1 (12.5)	1 (12.5)	2 (25)
HCV	1 (12.5)		1 (12.5)
HCV + alcohol		1 (12.5)	1 (12.5)
<b>Frequency of consultations n (%)</b>			

(continued)