

was performed utilizing the Mann-Whitney U test, with statistical significance set at $p < 0.05$.

Results: The subjects were classified into RI (22), Ab (4), OH (28), CiOH (76), HA (16), and CT (100). The GSH was found to decrease significantly in the EHA groups vs CT. In contrast, GSSG increased in the RI, Ab, OH, and CiOH groups compared to CT, indicating that alcohol consumption favors an oxidizing state, confirmed by the negative GSH/GSSG ratio. Additionally, the GSH/GSSG ratio in the OH group showed a greater imbalance than in patients with EHA. On the other hand, protein oxidation increased in EHA, with high levels of carbonylated proteins observed in OH, CiOH, and HA compared to CT, Ab, and RI. Furthermore, lipoperoxidation measured by Malondialdehyde showed increased levels of OH and CiOH compared to the other study groups.

Conclusions: Excessive alcohol consumption, with or without liver damage, promotes the oxidation of proteins and lipids. Additionally, alcohol favors the oxidized form of the main endogenous antioxidant, GSH. Therefore, it is necessary to control the redox balance through antioxidant treatment.

Ethical statement: The protocol was approved by the Ethics and Research commissions of the General Hospital of México "Dr. Eduardo Liceaga" (DI/16/107/03/031) and from the UNAM, Facultad de medicina (FM/DI/135/2017).

Declaration of interests: None.

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Prevalence and evaluation of sleep disturbances in Mexican patients with hepatic cirrhosis through the application of the Pittsburgh sleep questionnaire

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Introduction and Objectives: According to the literature, patients with cirrhosis have a high prevalence of sleep disturbances, which increase as the disease progresses. There are few studies conducted in this patient group, with a small number of samples, reflecting alterations in sleep quality and rest. The Pittsburgh Sleep Quality Index (PSQI) is a tool that allows us to evaluate sleep quality and the level of disturbances it may present. To assess the type and prevalence of sleep disturbances in a Mexican group of patients with cirrhosis through the application of the Pittsburgh questionnaire.

Materials and Patients: A prospective, cross-sectional, and epidemiological study was conducted with 300 individuals, of whom 266 did not have hepatic diseases and 74 were diagnosed with cirrhosis.

The Pittsburgh questionnaire was administered to them, which consists of 7 components that generate a total score. Total scores were interpreted as follows: 1-4 without sleep disturbances, 5-7 with mild disturbance, 8-14 with moderate disturbance, and 15 or more indicating severe disturbance.

Results were compared using Odds Ratio (OR) to assess the effect.

Results: Of the individuals evaluated, 74 (24.66%) were diagnosed with cirrhosis, with 42 women (56%) and 32 men (43.24%). The remaining 226 participants (75.33%) did not have liver diseases, with 150 women (66.3%) and 75 men (33.1%). When comparing the total scores, it was observed that 57 people without sleep disturbances, 18 (31.57%) were in the cirrhosis group, while 39 (68.42%) were not. Additionally, of the 102 individuals with mild alterations, 20 (19.60%)

were in the cirrhosis group and 82 (80.39%) were not. Of the 131 individuals with moderate alterations, 32 (24.42%) had cirrhosis and 99 (75.57%) did not. Finally, of the 10 individuals with severe alterations, 4 (40%) had cirrhosis and 6 (60%) did not. The calculation of the Odds Ratio was 1.09, indicating that patients with cirrhosis had a similar risk of sleep disturbances as those without cirrhosis.

Conclusions: In our study, it seems to demonstrate that contrary to previous reports in the literature, no difference was found in the prevalence of sleep disturbances between our population without cirrhosis and patients with cirrhosis.

This study is the first to apply this validated and translated questionnaire in Spanish to a Mexican population of patients with cirrhosis and healthy individuals to evaluate their sleep quality and the first to have a significant sample.

Ethical statement: Patients' identity was protected. Consentment was obtained directly from patients.

Declaration of interests: None

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Autoimmune hepatitis developed after acute liver failure due to hepatitis A. A case-report

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Introduction and Objectives: In this report, the relationship between Hepatitis A Virus (HAV) and Autoimmune Hepatitis (HA) will be analyzed, demonstrating the presence of HA after an acute HAV infection, highlighting the time between diagnoses and seroconversion with antibodies, as well as clinical characteristics and evolution.

Materials and Patients: 30-year-old male patient, with no personal pathological history who presents with general malaise, fever and jaundice. The clinical examination was within normal limits except for slight jaundice. The admission biochemical analyzes were as follows: Hb 14.2 g/dL, Leukocytes 8,550 /mm³, Total bilirubin 9.5 mg/dL Direct bilirubin 2.2 mg/, ALT 6155 U/L, AST 3940 U/L, Alkaline Phosphatase 1150 U/L and Prothrombin time 51.0 seconds; INR 4.95, a viral hepatitis profile with positive anti-HAV IgM antibodies and an imaging examination of the liver and bile ducts with inflammatory changes. The diagnosis of hepatitis A and acute liver failure was made.

The patient suffers rapid clinical and biochemical deterioration, with multiple organ failure requiring admission to an intensive care unit and advanced life management area due to acute respiratory failure syndrome, general support stockings and three sessions of single-step albumin dialysis were indicated. He showed stabilization and improvement in his general condition.

Results: 27 days after initial evaluation, fatigue and fever of unknown origin were present. Liver function test with BT 25.58 mg/dl, BD 17.55.0 mg/dl, ALT 38 U/l, AST 100 U/l and ALP 105 U/l and INR 1.5. He presented positive antinuclear antibodies with a cytoplasmic pattern with a titer of 1:80, SMOOTH MUSCLE 3+ intermediate filament pattern. DILUTION 1:80 immunoglobulin G 3260 mg/dl. A liver biopsy was performed, which showed changes compatible with autoimmune hepatitis (fig. 1). In the previous context, the diagnosis of autoimmune hepatitis triggered by HAV was made and treatment was started with prednisone 50 mg every 24 hours PO in a reduced dose of azathioprine 50 mg every 24 hours.

At one month of follow-up, PFH was found to have decreased and the established treatment continued.

Conclusions: Atypical courses of hepatitis A virus infection have a global prevalence of 7(1). Some case reports of HAI indicate that viruses that cause acute hepatitis, such as hepatitis A virus (HAV), hepatitis of hepatitis B (HBV) and Epstein-Barr virus, can trigger HAY (2) studies suggest a deficiency of suppressor T cells specific for the asialoglycoprotein receptor that would be involved in immunological abnormalities, including antigen presentations, were involved in the appearance of HAI after acute HA.(3)

Failure to normalize liver tests after OAB should raise concern for HAI, particularly in those with seroconversion to SMA positivity. (4) always having cholestasis that could arise after an acute episode of HAV infection.

Ethics statement: Protection of people and animals the authors declare that no experiments have been carried out on humans or animals for this research.

Data confidentiality the authors declare that no patient data appear in this article. Right to privacy and informed consent the authors declare that no patient data appears in this article.

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Correlation in estimating the degree of liver fibrosis using elastography and biochemical predictors of fibrosis, APRI and FIB-4 in a Mexican population from the National Medical Center of the West with chronic Hepatitis C Virus (HCV) infection.

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Introduction and Objectives: Liver fibrosis is common in HCV infection, leading to clinically significant portal hypertension and decompensated cirrhosis with high morbidity and mortality. Transient elastography is a validated study for the measurement of liver fibrosis with good predictive value, but it is not available in most public institutions. There are non-invasive measurement methods for fibrosis available, such as the FIB-4 and APRI indices. To analyze the correlation between the degree of liver fibrosis measured by elastography with the APRI and FIB-4 indices in a Mexican population with chronic HCV infection.

Materials and Patients: Cross-sectional, analytical, retrospective diagnostic test study. Information was obtained from the clinical records of HCV patients treated during the period from January 2017 to January 2019 in the Gastroenterology service of UMAE CMNO.

Results: A total of 467 patients were retrospectively analyzed; 281 met the inclusion criteria, 66.2% female and 32.8% male. Median age was 60 years, with an interquartile range of 16 years. Median weight was 62.5 kg, BMI of 24.8. The predominant HCV genotype was 1a, corresponding to 64.5%, genotype 1b was 24.7%. Genotypes 2, 3, and 4 represented 5.4%, 4.6%, and 0.8% of the population respectively. 2.2% had HIV co-infection and 0.7% had hepatitis B co-infection. 58%

had a fibrosis grade of F4, 17.1%: F1, 12.1%: F2, 11%: F3, and 1.8% without evidence of fibrosis (F0) according to the elastography results. There were no statistically significant differences between male and female participants (p=0.131). Sex did not impact the development of liver fibrosis. Spearman's correlation between APRI and FIB-4 indices with liver elastography was evaluated (Figure 1). A Rho value of 0.56 and a p-value < 0.001 was obtained for the APRI index and elastography. Similarly, the FIB-4 index also obtained a Rho value of 0.56 and a p-value < 0.001 with respect to elastography. For the APRI index, the calculated cutoff point for each ROC curve was the same (0.75), regardless of the degree of fibrosis. It was considered a good predictor of fibrosis. For the FIB-4 index, the calculated cutoff points matched in the subgroups of F0–F2 with an optimal cutoff value of 2.645, and in the subgroups of F3–F4 with an optimal cutoff point of 2.665. This suggests that this index is a good marker for distinguishing between grade F1 and advanced fibrosis grades (F3–F4) (Table 1).

Conclusions: The APRI and FIB-4 indices are reliable and accurate predictors for estimating the degree of liver fibrosis in patients with chronic HCV infection, with a statistically significant correlation of the degree of liver fibrosis between the predictive indices and liver elastography.

Ethics Statement: Complies with the regulations in health research according to the General Health Law and the Declaration of Helsinki, respecting the principles of beneficence, non-maleficence, justice, respect, and autonomy.

Declaration of Interests: None.

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Figure 1 Correlations between the APRI and FIB-4 indices and liver elastography.

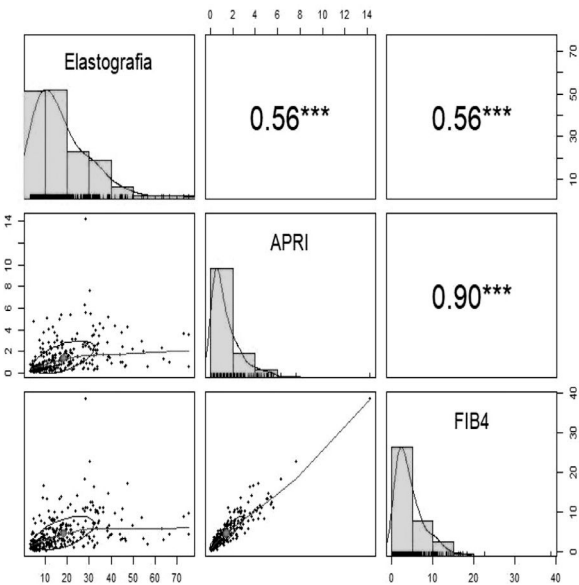


Table 1
Cutoff points obtained for each grade of fibrosis (METAVIR classification)

Cutoffs points.				
Índice	F0 vs. F1-F4	F0-F1 vs. F2-F4	F0-F2 vs. F3-F4	F0-F3 vs. F4
APRI	0.75	0.75	0.75	0.75
FIB-4	2.645	2.645	2.665	2.665

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