Ethical statement

This study did not involve any patients or animal models and did not require approval.

Declaration of interests

None

Prevalence of pregnancy liver diseases in patients at National Medical Center "La Raza" IMSS.

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Introduction and Objectives: There are physiological changes in the hepatobiliary system during pregnancy. However, there are also pregnancy-related liver diseases, which occur in up to 3% of all pregnancies and can have potentially serious consequences for the mother and fetus. The most frequent are hyperemesis gravidarum, preeclampsia/eclampsia, elevated liver enzymes and low platelet count syndrome (HELLP), intrahepatic cholestasis of pregnancy (ICP) and acute fatty liver of pregnancy (AFLP). The prognosis depends on timely diagnosis and treatment. This study aimed to report the epidemiological characteristics of liver diseases in a Mexican population of pregnant women.

Materials and Patients: A retrospective descriptive observational study that included information collected from the electronic file of pregnant patients treated at UMAE HGO No. 3, of CMN La Raza, assessed by the Gastroenterology service of HE CMN "La Raza" in the period March 2021- May 2023.

Results: 142 patients were included, the mean age was 30 years, 54% were multiparous women, 8.4% of the patients were in the first trimester, 27% in the second trimester and 64% in the third trimester. In our total sample, alterations in liver biochemistry that met clinical and biochemical criteria for pregnancy-associated liver disease were analyzed, where 49% reported hypertransaminasaemia due to etiologies such as preeclampsia, HELLP syndrome, metabolic dysfunction associated fatty liver disease (MAFLD) and biliary pathology, 41% met criteria for ICP, 6% hyperemesis gravidarum, 1.4% were diagnosed with portal hypertension and liver cirrhosis, only 0.7% were diagnosed with autoimmune hepatitis and AFLP.

Conclusions: Based on solicited assessments over a 2-year period of women at any stage of pregnancy, hospitalized due to changes in liver biochemistry, most changes occurred In the third trimester of pregnancy, the most frequent disorder was intrahepatic cholestasis of the pregnancy, the rest of the pathologies were included in the hypertransaminasaemia group, where the most frequent causes were: MAFLD and cholelithiasis, less frequently: preeclampsia, HELLP syndrome or intrahepatic bile duct disorders.

Ethical statement

The protocol was registered and approved by the Ethics Committee. The identity of the patients is protected. Consentment was obtained.
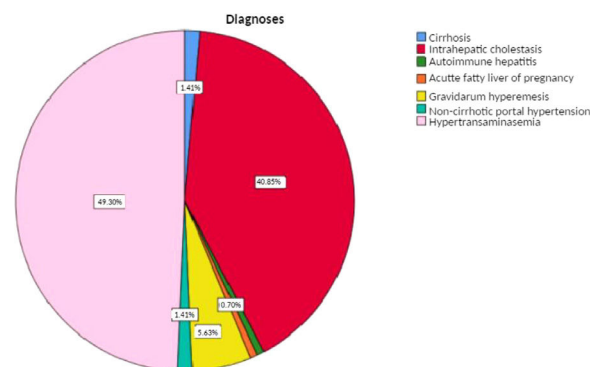
Declaration of interests

None

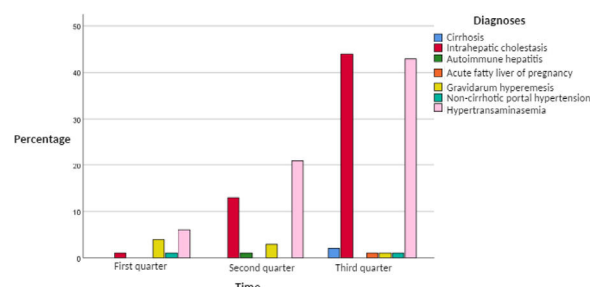**Figure 1.** Prevalence of diagnoses.

Figure 2. Frequency of diagnoses according to trimester.

Regulation of TGF-β1, 2, and 3 and IL-10 at systemic level in chronic liver disease

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Introduction and Objectives: Chronic liver disease (CLD) is considered an important health problem worldwide. The production of IL-10 regulated the hepatic inflammation. Whereas TGF-β plays a crucial role during the progression of CLD, promoting the dysregulated production of extracellular matrix in the liver. However, the role of TGF-β1, 2, and 3 and IL-10 in CLD is not completely understood. To evaluate the circulatory values of TGF-β1, 2, and 3 and IL-10 in hepatitis C virus (HCV), Non-alcoholic fatty liver disease (NAFLD) and alcoholic cirrhosis (OHCi) and control subjects (CT).

Materials and Patients: A prospective, cross sectional, observational and multicentric study. HCV (n=33), NAFLD (n=33) and OHCi patients (n=22) and CT (n=26) were enrolled. The anthropometric variables, detailed clinical history and biochemical parameters were

considered. TGF-β1, 2, and 3 and IL-10 (pg/mL) were evaluated using multiple suspension arrays. Kruskal-Wallis and Mann-Whitney U test were used for the statistical analysis. The study has the approval of the Research and Ethics Commissions with code FM/DI/135/2017 and the Research Ethics Committee of the Hospital General de México Dr. Eduardo Liceaga with code DI/16/107/03/031 as well the consent informed of the patients.

Results: The age of CT group was estimated at 33 yrs., while the average of the different hepatopathies was 47 yrs. Male predominance was marked in OHCi and CT, but in NAFLD the distribution of women was similar. Multiple comparison analysis revealed that serum levels of TGF-β1, 2, and 3 did not present statistical differences in each CLD group. Nevertheless, TGF-β2 isoform showed significant difference in NAFLD and OHCi vs. CT (p<0.05), showing a ratio of 1.8 and 1.6, respectively. The levels of the anti-inflammatory cytokine IL-10 were distributed as follows: OHCi>NAFLD>HCV showing correlation with the increment of the ratio of 4.4, 2.7, and 2.3 folds compared to CT, respectively.

Conclusions: Our data showed no differential changes of TGF-β1, 2, and 3 in accordance with CLD. The up regulation of TGF-β2 isoform could be related to different inflammatory responses in NAFLD and OHCi. On the other hand, IL-10 was upregulated in all the chronic conditions reflecting its role as pro-inflammatory mediator.

Ethical statement

The protocol was registered and approved by the Ethics Committee. The identity of the patients is protected. Consentment was obtained.

Declaration of interests

None

Levels of IGFBP-1, 3 and 7 in human serum induced by alcohol consumption, NAFLD and dual insult

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Introduction and Objectives: Alcoholic liver and non-alcoholic liver disease causes liver disease. Dual damage has been gaining great relevance. Insulin growth factor binding proteins (IGFBPs) regulate the signaling pathways of IGF; IGFBP-3 have emerged as promising biomarkers in HGNA; however, in alcohol intake and dual damage has not been previously reported the levels of IGFBPs. To demonstrate the changes in the serum levels of IGFBP-1, 3 and 7 in alcohol consumption, NAFLD and dual insult

Materials and Patients: Prospective, cross-sectional and multi-center study; approved by the research and ethics commission of the UNAM and the General Hospital of Mexico. A clinical history was taken and an informed consent was requested. IGFBP-1, 3 and 7 were evaluated in alcoholism (OH), alcoholic liver disease (cirrhosis (CiOH)), alcoholic hepatitis (AH), NAFLD, dual patients and control group (CT) using multiple suspension arrays. Kruskal-Wallis, Mann-Whitney U test were used for the statistical analysis.

Results: The data showed that alcohol dependence increased the serum levels of IGFBP-1, 3 and 7 (ng/mL) vs. CT, and vs. the other hepatopathies as follows OH>AH>CiOH>HGNA>Dual. Whereas in CiOH the levels of IGFBP-1, 3 and 7 were reduced vs. CT, but a slight increment was observed in AH; however, it never reached similar values to CT. On the other hand, in NAFLD the serum concentrations of all the IGFBPs evaluated were downregulated vs. CT.

Conclusions: The serum levels of IGFBPs were regulated in a differential manner in accordance with the negative liver stimuli, these changes were more evident in alcoholism The dual stimulus showed the clear synergistic effects of alcohol consumption and diet in IGFBP regulation. IGFBPs could be used as biomarkers or targets in the control of different hepatopathies.

Ethical statement

The study was previously approved by the institutional ethics committees of the Hospital General de México (HG/DI/16/107/03/082) and the Universidad Nacional Autónoma de México

(FMD/DI/15/2015), guaranteeing its performance in accordance with the ethical principles described in the 1975 Declaration of Helsinki. A clinical history was taken and an informed consent was requested.

Declaration of interests

None

Clinical and epidemiological characterization of patients with hepatocarcinoma

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Introduction and Objectives: Hepatocellular carcinoma (HCC) represents more than 80% of liver cancers with a direct impact on morbidity and mortality. Viral hepatitis is responsible for most cases, in addition to the progression of liver cirrhosis from other causes. There are various risk factors of importance for identification and screening programs for adults at risk of HCC. The aim of this study was to characterize the clinical and epidemiological profile of patients diagnosed with HCC.

Materials and Patients: Prospective study of patients diagnosed with HCC. Data from clinical history, laboratory results, histopathology, and imaging studies were obtained. Univariate analyzes were carried out and Kolmogorov-Smirnov and Shapiro-Wilk normality tests were performed for continuous variables to determine the appropriate statistical test, performing bivariate analyzes with the Mann-Whitney or T-Student test. Non-parametric correlations were