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

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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 multicenter 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

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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

determined by Rho Spearman calculated with a 95% confidence interval and statistical significance p<0.05.

Results: We identified 50 patients (n=50) with HCC with a mean age of diagnosis 66 years (SD ± 12.91), 70% predominating in men and 88% with liver cirrhosis, the majority being Child-Pugh C (34%). The main etiology of liver cirrhosis was hepatitis C (42%) and alcohol consumption (30%); others were MASLD 4% and hepatitis B 4%. The performance status by ECOG scale was (0-2) in 70% and (3-4) in 30%. Most patients were identified in Barcelona (BCLC) D (38%) and all were diagnosed by imaging criteria or histopathology combined AFP (alpha-fetoprotein) levels. Biopsies were performed in 34% of the patients, with a predominance of moderately differentiated type (14%), identifying metastases in 8%. Mortality was 28% presenting statistical significance with AFP levels (p=0.028) and hepatic encephalopathy (p=0.004). The ECOG scale showed a positive correlation with the presence of ascites (r=.567, p= <0.001), hepatic encephalopathy (r=.337, p=0.017) and Child-Pugh Scale (r=0.615, p=<0.001).

Conclusions: Most cases were identified at an advanced stage, highlighting the importance of early detection, with screening programs focused on eliminating risk factors, treatment of viral hepatitis, cessation of alcohol consumption, and periodic follow-up of patients with liver cirrhosis to prevent disease progression and impacts on quality of life.

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

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

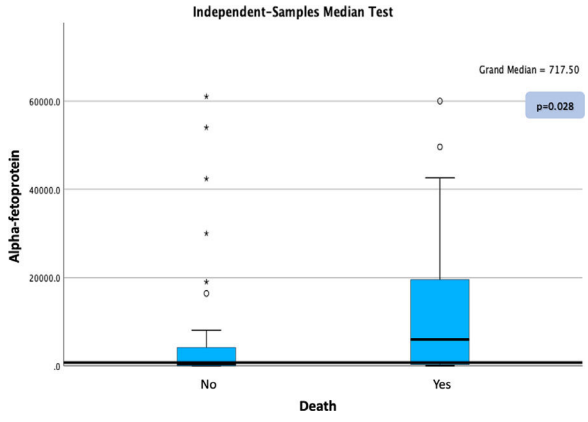

Figure 1. Relationship of AFP Levels with Mortality

Table 1
Correlation of ECOG Performance Status Scale with Liver Decompensation

ECOG Performance Status Scale	Correlation Coefficient	p-value
Ascites	r=.567	p<0.001
Hepatic Encephalopathy	r=.337	p=0.017
Child Pugh Scale	r=.615	p<0.001

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Survival of patients with hepatocellular carcinoma treated with immunotherapy experience of a third level center.

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Introduction and Objectives: Hepatocellular carcinoma (HCC) ranks sixth among tumors, the third cause of death worldwide and accounts for 85-90% of primary liver tumors. Recently, the use of immunotherapy as first-line treatment offers a survival of 18 months. The objective of this study is to assess the survival and adverse effects of the different immune checkpoint inhibitor therapies in our population

Materials and Patients: Patients who received immunotherapy at the Central Military Hospital from January 2021 to April 2023 were included. The following were recorded: leukocytes, hemoglobin, platelets, PT, INR, BT, AST, ALT, ALP, albumin, MELD, MELD-Na, ALBI, MELD 3.0 before and after treatment, calculation of survival, progression-free time and adverse effects

Results: 18 patients with stage A were included 2 patients, BCLC B 6 patients and BCLC C 10 patients, age 67.72 ± 14.40 years, 11 (61%) men, the following immunotherapy schemes were given: atezolizumab + bevacizumab 13 patients and 5 patients with Nivolumab. The following variables were compared before and after immunotherapy: leukocytes, hemoglobin, platelets, PT, INR, BT, AST, ALT, ALP, albumin, MELD, MELD-Na, ALBI, MELD 3.0. Without finding statistical differences (Table 1). Adverse effects were 1 patient presented with clostridiode and 2 with immune-mediated hepatitis without improvement after treatment, which required suspension of immunotherapy and initiation of second line treatment. Overall survival was 19 months and progression-free time 15 months.

Conclusions: The overall survival of the patients was 19 months, the adverse effects that the patients appeared were similar to those reported in the literature.

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

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This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.