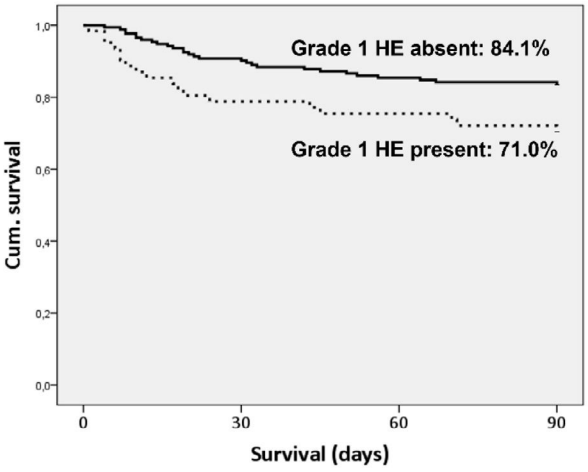
without HE (16.1% vs. 4.0%, P = 0.003). The 90-day Kaplan-Meier survival probability was significantly lower among patients with grade 1 (71.0% vs. 84.1%, P = 0.018) (figure 1).

Conclusions: When compared to individuals without HE at admission, grade 1 HE was associated with parameters of more advanced liver disease and more severe acute decompensation. Patients with grade 1 HE exhibited worse evolution of mental state and higher mortality, reinforcing the practical importance of more subtle clinical findings.

Figure 1



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P-40 IS THERE A DISTINCT PHENOTYPE OF NON-ALCOHOLIC FATTY LIVER DISEASE IN LEAN AND OVERWEIGHT PATIENTS?

Denise Siqueira Vanni, José Tadeu Stefano,
Sebastião Mauro Bezerra Duarte,
Patricia Momoyo Yoshiura Zitelli,
Renato Gama Altikes, Karla Toda Oti,
Mário Guimarães Pessoa, Flair José Carrilho,
Claudia P Oliveira

Division of Clinical Gastroenterology and Hepatology (Lim-07), Clinics Hospital, Department of Gastroenterology, University of São Paulo School of Medicine, Sao Paulo, Brazil

Introduction and Objectives: Non-alcoholic fatty liver disease (NAFLD) is not an exclusive disease of obese patients. Lean and overweight patients also deal with this disease. This study aimed to analyze if there is any different NAFLD phenotype between lean and overweight patients.

Materials and Methods: This is a cross-sectional study of descriptive characteristics of lean (BMI ≤ 24.9kg/m2) and overweight (BMI 25-29.9kg/m2) patients from a NAFLD outpatient care facility at a Tertiary reference hospital in Sao Paulo, Brazil. The analysis included: gender, age, BMI, Insulin Resistance (IR), Type 2 Diabetes Mellitus (T2DM), Systemic Arterial Hypertension (SAH), Dyslipidemia (DLP), ALT, AST, GGT, ferritin, liver stiffness, CAP, Fibrosis stages and NAS score. Mann-Whitney U test, Welch two-sample t-test and Fischer's exact test were used.

Results: A total of 68 (54 overweight; 14 lean) NAFLD patients were analyzed. Female majority in each group (86% lean; 67% overweight). Similar mean age: in lean 63.79yo (CI95% 59.23-68.34yo) and in overweight 63.80yo (CI95%60.91-66.68yo). The mean BMI in lean was 22.77 kg/m2 (CI95% 22.08-23.47 kg/m2) and in overweight was 27.19 kg/m2 (CI95% 26.85-27.54 kg/m2). The majority of the groups had T2DM, DLP and SAH. IR occurred in 26% and 14% of overweight and lean, respectively. In the lean group, 13% didn't have IR or T2DM. ALT, AST, GGT, ferritin, liver stiffness and CAP between groups had no significant statistical difference (p > 0.05). Advanced fibrosis (≥ F3) in 7 (50%) lean and 30 (68%) overweight patients (p= 0.182). NASH (NAS ≥ 4) in 9 (64%) of the lean and 44 (81%) of the overweight (p= 0.222).

Conclusions: In this small population study, preliminary results infer that lean and overweight NAFLD patients have similar characteristics. A large-scale study could confirm this data. Perhaps we should consider lean and overweight as one non-obese NAFLD group and eventually compare them with obese counterparts in future studies.

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P-41 SARCOPENIA AS A PREDICTOR OF RISK OF MINIMAL HEPATIC ENCEPHALOPATHY IN PATIENTS WITH LIVER CIRRHOSIS

Oscar Morales Gutiérrez,
María de Fátima Higuera de la Tijera,
José Luis Pérez Hernández

Deparment of Gastroenterology and Hepatology Hospital General de México "Dr. Eduardo Liceaga", Mexico City, México

Introduction and Objectives: Sarcopenia, defined as loss of muscle mass and strength and minimal hepatic encephalopathy (MHE), alters the quality of life and prognosis of patients with cirrhosis. Ammonia plays a key role in the pathogenesis of MHE and has been associated with decreased muscle mass and strength. However, the relationship between sarcopenia and MHE is not well defined. The objective of this study was to determine their relationship and identify predictors of MHE.

Material and methods: Prospective study, including 96 patients with compensated cirrhosis diagnosed by transitional elastography. The presence of MHE and sarcopenia was determined by a critical flicker frequency test and criteria from the European Working Group EWG-SOP2. Muscle mass and strength were determined by electrical bioimpedance and a handgrip dynamometer. Functional capacity was evaluated by Short Physical Performance Battery (SPPB), performing linear logistic regression analysis to identify predictors of MHE.

Results: Of the 96 patients with cirrhosis, 61 (64%) and 35 (36.5%) were diagnosed with MHE and sarcopenia, respectively. In the multivariate analysis, the SPPB rating (R 0.521, 95% CI 0.85-2.54, p=<0.001) and grip strength (R 0.314, 95% CI 0.024-0-50, p=0.032) showed the highest predictive value for MHE.

Conclusions: Decreased handgrip strength and SPPB score were significant predictors of MHE. Early nutritional intervention and physical rehabilitation could reduce the risk of developing EHM in patients with cirrhosis.

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P-42 OBESITY AND ANTI-HBC IGG POSITIVITY INCREASE THE RISK OF HEPATOCELLULAR CARCINOMA IN A COHORT OF CHRONIC HEPATITIS C PATIENTS IN A TERTIARY OUTPATIENT CLINIC IN SÃO PAULO, BRAZIL

Alexandre Trazzi, Patricia Momoyo Zitelli,
Daniel Mazo Ferraz, Roque Gabriel Rezende,
Claudia Oliveira Pinto, Aline Chagas Lopes,
Flair José Carrilho, Mário Guimarães Pessoa

Division of Gastroenterology, University of Sao Paulo, Sao Paulo, Brazil

Introduction and Objectives: Chronic infection with hepatitis C virus (HCV) still affects millions of people around the world despite the recent development of very effective direct-acting antiviral (DAA) treatment. Even after a high cure rate, patients with advanced fibrosis should remain under surveillance due to the high risk of developing hepatocellular carcinoma. This study aimed to evaluate the prevalence and risk factors for hepatocellular carcinoma development in previously treated chronic HCV patients in an outpatient hepatology clinic at Clinic Hospital of the University of São Paulo of School Medicine in the city of São Paulo.

Materials and Methods: This is a retrospective, observational and descriptive study of a series of cases in which 410 HCV patients were treated with three different antiviral regiments: Interferon plus Ribavirin (INF + RBV) or Protease Inhibitors (PI) or DAA, were followed for up to ten years (2011-2021). Demographic, clinical and laboratory data were obtained for electronic medical records.

Results: the total sample of this study consists of 402 patients. Table 1 shows the patient demographic and clinical data. Of the 35 patients who developed HCC, 26 (74%) had F4-degree fibrosis. Logistic regression model was performed with the following variables: BMI (p=0.005), positive anti-HBC IgG (p=0.015), combination fibrosis and CHIILD-PUGH score A (p=0.001), B (p=0.012) and C(p< 0.001).

Conclusions: In our cohort, obesity and anti-HBc IgG were significantly associated with a high risk of developing HCC. The type of antiviral treatment (IFN or DAA-based) was not associated with the risk of HCC.

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P- 43 PIRFENIDONE PREVENTS NEOPLASTIC LESIONS DEVELOPMENT BY OXIDATIVE, FIBROGENIC, ANTIPROLIFERATIVE AND EPIGENETIC MECHANISMS REGULATION IN A MODEL OF CHEMICAL HEPATOCARCINOGENESIS

Hipólito Otoniel Miranda-Roblero[1], Hugo Christian Monroy-Ramírez[1], Marina Galicia-Moreno[1], Ana Sandoval-Rodriguez[1], Arturo Santos[2], Juan Armendáriz-Borunda[1,2]

[1] *Institute of Molecular Biology in Medicine and Gene Therapy, University Center of Health Sciences (CUCS), University of Guadalajara, Guadalajara, Mexico*
[2] *School of Medicine and Health Sciences, Technological of Monterrey Campus Guadalajara, Zapopan, Mexico*

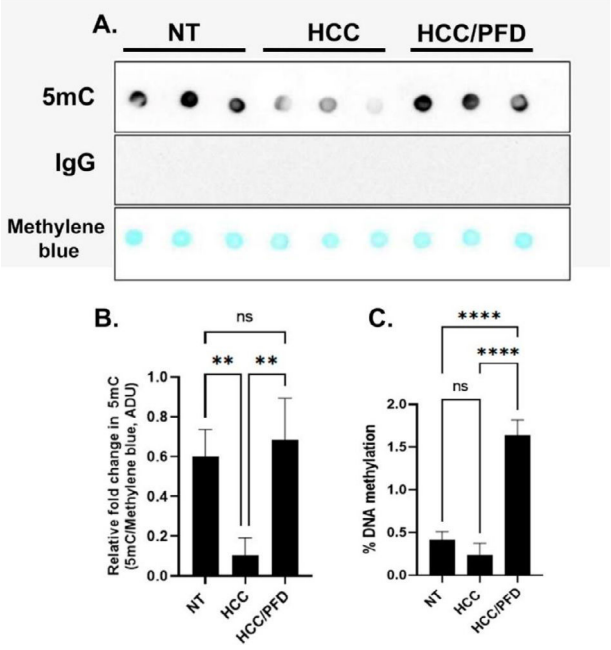
Introduction and Objectives: Hepatocellular carcinoma (HCC) is the most frequent hepatic neoplasia, where oxidative, fibrogenic, proliferative, and epigenetic processes are altered. Pirfenidone (PFD) has been shown to have important hepatoprotective properties. However, its efficacy in HCC development is unknown. This study aimed to 1) To determine whether PFD has antioxidative, antifibrogenic and antiproliferative effects. 2) To determine PFD effects on epigenetic regulation mechanisms.

Materials and Methods: Male Fischer-344 rats were divided into three groups. Group 1. Control, NT; Group 2. Damage, HCC, generated by diethylnitrosamine weekly administration; (50mg/kg, i.p.) and 2-acetylaminofluorene (25mg/kg, p.o.) for 12 weeks; and Group 3. HCC/PFD: with the same treatment as Group 2, plus PFD (300 mg/kg, p.o./day). Liver enzyme activity was quantified in serum; lipoperoxidation and GSH levels were evaluated in liver tissue samples; histopathological analyzes were performed. In addition, fibrogenic, antioxidant, anti-proliferative and epigenetic regulation markers were determined by Western blot. Finally, global DNA methylation was determined by Dot-blot and ELISA. The data obtained were analyzed using one-way ANOVA and a Tukey post hoc test.

Results: We demonstrate that PFD treatment reduces the number and size of neoplastic lesions, prevents damage to hepatic architecture and collagen deposition, and decreases the presence of the histopathological marker Glypican-3. On the other hand, it positively regulates antioxidant markers such as GSH, MDA, Nrf2, GSTP1 and Catalase. It was also effective to decrease c-Myc expression and β-catenin redistribution from the nucleus to the cytoplasm. Finally, PFD stimulated the nuclear transfer of several isoforms of PPARs, SIRT1 and DNMT1, increasing epigenetic mechanisms of global DNA methylation (figure 1).

Conclusions: PFD prevents neoplastic lesions development by modulating antifibrogenic, antioxidant, and antiproliferative processes and modulating epigenetic marks to reverse global DNA hypomethylation.

Figure 1. Analysis of global DNA methylation. A) Representative dot blot using anti-5mC which recognizes global methylated DNA, anti-IgG as negative control and methylene blue staining as total DNA loading control. B) Graphs shows mean ± standard deviation of 5mC densitometry brand intensity of study groups. C) Graph that represents the percentage of global methylation of the DNA analyzed with ELISA.A one-way ANOVA statistical test and a Tukey post hoc test were performed. Group NT: only received vehicle; Group HCC: damage group induced by weekly administration of DEN and 2-AAF for 12 weeks; and Group HCC/PFD: which received the same treatment as Group HCC, plus PFD (300 mg/kg) (**p<0.005)



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P- 44 HEPATOCELLULAR CARCINOMA IN CIRRHOTIC PATIENTS IN A PARAGUAYAN LIVER REFERENCE CENTER: CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS

Lorena Martínez[1], Amaya Ortiz[1], Rodrigo Pérez[1], Mirian Colarte[1], Sebastián Díaz[1], Martin Sánchez[2], Johana Silvero[2], Maisa Vallejos[3], Marcos Girala[1], Jesus Ortiz[1]

[1] *Department of Gastroenterology and Digestive Endoscopy, Clinics Hospital, National University of Asunción, San Lorenzo, Paraguay*