

136/241 (56.4%) were classified as stage 2 cirrhosis, and 37/241 (15.4%) presented with ascites. Furthermore, 36/241 (14.9%) participants were diagnosed with MHE. The threshold for identifying malnutrition based on HGS was established as the values falling within the lowest tertile of the sample (<16.5 kg), resulting in 76/241 (31.5%) individuals being classified as malnourished. Malnutrition showed an association with the presence of MHE, OR: 2.214 (95% CI: 1.077-4.552, $p=0.031$). Adjustment of models for the presence of hyponatremia, BMI, CAMB, triceps skinfold, and Child-Pugh score did not alter this association. However, when accounting for albumin levels (g/dl), both malnutrition and albumin levels were independently associated with the presence of MHE [Malnutrition OR: 2.104, 95% CI 1.014-4.364, $p=0.046$ / Albumin OR: 0.512, 95% CI 0.282-0.932, $p=0.028$].

Conclusions: Reduction of the hand grip is associated with an increased risk of MHE, supporting the role of muscle tissue in the development of MHE.

Ethical Statement: Approval for the study was obtained from the local ethics committee (R-2024-3601-045).

Declaration of Interests: None.

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Skeletal muscle as a source of IGFBP-2 in a murine model of metabolic dysfunction associated with steatotic liver disease.

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Introduction and Objectives: Insulin-like Growth Factor Binding Protein (IGFBP)-2 is lower in serum during obesity and metabolic dysfunction. We have previously shown that the decrease in serum IGFBP-2 follows a diminished expression in liver and heart, both associated with the progression of steatotic liver disease. We aimed to identify, in a murine model, the synthesis of IGFBP-2 in extrahepatic tissues involved in metabolic dysfunction: skeletal muscle and adipose tissue.

Materials and Patients: Samples of hamstring muscle, and epididymal adipose tissue were obtained from male C57BL/6 mice, fed a high-fat diet supplemented with sucrose and fructose (42g/L) in the beverage during 6 months. All procedures were approved by the Institutional Committee of Care and Use of Laboratory Animals at the School of Medicine, UNAM (FM/DI/005/2022). Four groups were included: Control; Metabolic dysfunction (MD), exhibiting increased bodyweight and adiposity; MD with steatosis (MD+SS); and MD+SS with fibrosis (MD+SS+F). Total protein was isolated in a protease inhibitor cocktail. Protein integrity was assessed by SDS-PAGE. IGFBP-2 was assayed by ELISA. Data was shown as Mean $\pm$ SD, analyzed by one-way ANOVA; Student's t test was applied to compare 2 groups. $P<0.05$ was considered significant.

Results: IGFBP-2 expression was 6-fold increased in control skeletal muscle compared to control adipose tissue. In epididymal adipose tissue, IGFBP-2 expression significantly decreased in MD+SS+F compared to Controls, and MD. In contrast, the hamstring showed

increased IGFBP-2 expression in mice showing metabolic dysfunction associated with steatotic liver disease: MD+SS and MD+SS+F. The percentage of adiposity significantly increased in MD subjects whereas no changes were observed regarding muscle mass, suggesting hypertrophy might be key.

Conclusions: Our results show that metabolic dysfunction (MD) associated with MASLD have a role in inhibiting IGFBP-2 expression in adipose tissue. In contrast, skeletal muscle increases its synthesis. These results suggest a role for skeletal muscle in the reversion of MASLD through IGFBP-2 expression. More studies are needed to identify the roles of skeletal muscle and its hypertrophic state in MASLD.

Ethical statement: All procedures were approved by the institutional Committee for the Care and Use of Laboratory Animals (CICUAL) from the Medicine School, UNAM (FM/DI/005/2022).

Declaration of interests: None.

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Mortality and outcome of acute kidney injury in hospitalized patients with cirrhosis, kidney injury and bacterial infection.

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Introduction and Objectives: Acute kidney injury (AKI) in hospitalized patients with cirrhosis occurs in 60%, is often precipitated and one cause is bacterial infections (BI), worsening the course of cirrhosis. The aim of this work is to report mortality and renal function outcomes in patients with cirrhosis, AKI and BI.

Materials and Patients: We analyzed a retrospective cohort from August 2022 to January 2023 with 201 patients (55.42 $\pm$ 10.41 years, 52.7% men). We included patients with a diagnosis of decompensated cirrhosis secondary to different precipitants, including BI, who did or did not develop AKI. We report the frequency of AKI associated with BI and divide the population between those who presented with BI and those who did not. Qualitative data are expressed as percentages and quantitative data as mean $\pm$ SD. Statistical comparison was performed with the two-tailed unpaired Student's t-test or chi-square, as appropriate Alpha=0.05.

Results: The 73 patients with BI (54.48 $\pm$ 9.58 years, 54.8% male) did not differ in age or sex compared to the 128 patients without BI (55.95 $\pm$ 10.85 years, 51.6% male, $p=0.65$) (Figure 1). Patients with BI had a higher risk of mortality at 28 (42.5% vs. 6.3%, $p<0.0001$) and 90 days (50.7% vs. 10.9%, $p<0.0001$) (figure 2). Of the total patients who developed AKI with BI (78.1% vs. 43%), it was observed that they had the worse outcome of renal function (complete resolution 37%, incomplete resolution 9.6% and no resolution 31.5% vs 32.8%, 2.3% and 7.8%, $p=0.0036$), more days of in-hospital stay (7.64 $\pm$ 5.31 days vs. 4.23 $\pm$ 3.29, $p<0.0001$) and analyzing risk factors, they also had significantly higher creatinine numbers (2.26 $\pm$ 1.38 vs. 1.43 $\pm$ 1.01, $p<0.0001$), as well as Child Pugh scores (A=1. 4%, B=15.1% and C=83.6% vs. 18.8%, 46.1% and 35.2%, $p<0.0001$), MELD Na (27.22 $\pm$ 8.38 vs. 18.85 $\pm$ 8.7, $p<0.0001$) and ACLF grades (1=20.5%, 2=32.9% y 3=13.7% vs. 14.1%, 7.8% y 1.6%, $p<0.0001$). Urinary tract infection 32 (43.8%) was the most frequent type of infection.

Conclusions: In patients with cirrhosis, AKI associated with BI increases mortality and worsens renal function outcome. Therefore,