OP-5 ACUTE-ON-CHRONIC LIVER FAILURE (ACLF) CRITERIA IN ALCOHOL-ASSOCIATED HEPATITIS: IMPLICATIONS FOR LIVER TRANSPLANTATION

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Conflict of interest: No

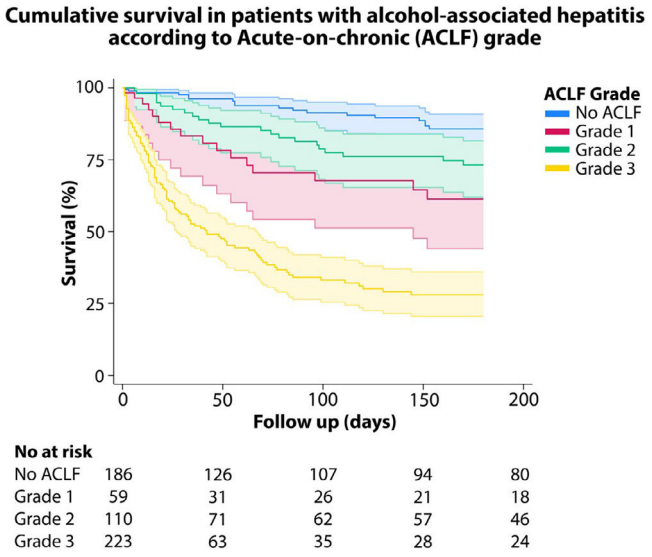
Introduction and Objectives: *Background:* Severe alcohol-associated hepatitis (AH) is considered a common precipitant of acute-on-chronic liver failure (ACLF). This study aims to characterize the association between AH and ACLF, focusing on mortality across different ACLF grades.

Patients / Materials and Methods: Multicenter prospective cohort study. We included patients admitted with severe AH between 2015–2022. The main outcome was mortality by ACLF grade during admission. The analysis included survival analysis using Cox regression. We adjusted multivariable models based on the main predictors of mortality observed in prior studies.

Results and Discussion: We prospectively included 646 patients from 24 centers and 8 countries. Age 49.9±11.7 years, 85.1% of men and 64.4% had a previous diagnosis of cirrhosis. Median MELD at admission was 25 [20-31] points, 46.5% of patients were treated with corticosteroids, and only 2.2% underwent liver transplantation (LT). Around 67.4% of patients fulfilled ACLF criteria: 10.1% grade 1, 19.2% grade 2, and 38.1% grade 3. The most frequent organ dysfunctions were 76.2% liver, 40.8% brain, 43.2% coagulation, 29.6% renal, 29.4% circulatory, and 18.9% lung failure. Survival at 180 days was 77.8% (95%CI: 72.1-82.6%) in those without ACLF grade 3 and 28.0% (95%CI: 20.5–36.0%) in those with ACLF grade 3 (p<0.001). In the multivariable model adjusted by age, body mass index, and MELD score, individuals with ACLF grade 3 had lower survival than those without ACLF (HR 2.67, 95%CI: 1.50–4.76; p=0.001). However, those with ACLF grade 1 (HR 1.50, 95%CI: 0.76–2.96; p=0.243) and grade 2 (HR 0.70, 95%CI: 0.31–1.56; p=0.380) were not associated with a higher mortality than those without ACLF.

Conclusions: Among patients with AH, only ACLF grade 3 is a major determinant of morbimortality. Thus, patients who fulfill ACLF

grade 3 should promptly be referred for early LT. The redefinition of ACLF in AH is essential for better quantifying the severity and determining therapeutic goals.



Figure

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OP-6 EVALUATION OF THE HEPATOPROTECTIVE ACTIVITY OF Flourensia cernua AND ITS IMPACT ON THE AEROBIC INTESTINAL MICROBIOTA IN A VALPROIC ACID-INDUCED DAMAGE MODEL IN WISTAR RATS

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Conflict of interest: No

Introduction and Objectives: Liver disease is a health problem that accounts for more than 2 million deaths per year worldwide. Valproic acid (VPA) has been used as a hepatotoxic agent in animal models to reproduce liver damage and test future therapeutic strategies. *Flourensia cernua* (Fc) is a plant that contains compounds with antioxidant activity, which may have a potential hepatoprotective effect.

The aim was to evaluate the hepatoprotective activity of *Flourensia cernua* and its impact on aerobic intestinal microbiota in a valproic acid-induced damage model in Wistar rats.

Patients / Materials and Methods: Seven groups were used (n=6): 1) Sham, 2) VPA, 500 mg/kg of VPA/d/7d i.p., 3) Fc extract at 200 mg/kg/d/3d p.o., 4) Fc extract at 400 mg/kg/d/3d p.o., 5) VPA + Fc 200 mg/kg/d/3d p.o., 6) VPA + Fc 400 mg/kg/d/3d p.o., 7) VPA + Silibinin 200 mg/kg/d/3d p.o.; subsequently, the animals were sacrificed, and samples of faeces, blood, and liver tissue were taken for aerobic intestinal microbiota(AIM), biochemical markers, oxidative stress, and histological analysis, respectively. Data was analyzed using Prism software (v. 10.0.0; GraphPad). $P<0.05$ was statistically significant.

Results and Discussion: VPA significantly increased ALT, AST and decreased total proteins vs. Sham. There was no alteration of transaminases at both tested doses of Fc extract. Only the VPA + Fc 400 mg/kg group showed a significant reduction in ALT, AST, SOD, and MDA vs. VPA, similar to silibinin. The histological analysis did not show significant changes in the study groups. MALDI-TOF primarily identified *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Escherichia coli*, and *Ochrobactrum intermedium* as AIM in the different study groups.

Conclusions: The hydroalcoholic extract of *F. cernua* did not show toxicity at the evaluated doses, showed a hepatoprotective effect at 400 mg/kg, and did not modify AIM. VPA decreased AIM, and *F. cernua* showed a trend to partially restore the normal bacterial count, similar to silibinin.

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OP-7 Further exploration of differences between lean and non-lean metabolic dysfunction-associated steatotic liver disease (MASLD) in Latino subjects: PNPLA3 frequency and lipidomic profiles

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Conflict of interest: Yes, Fondecyt # 1241450

Introduction and Objectives: *Background:* There is limited information on features of lean MASLD patients in Latino subjects. We aimed to analyze the features of MASLD in Chilean patients with normal body mass index (BMI), the frequency of the rs738409 risk polymorphism (PNPLA3 I148M variant) and metabolomic profiles in Chilean individuals with MASLD.

Patients / Materials and Methods: A cross-sectional study involving 181 randomly-selected participants diagnosed with MASLD from the prospective Maule Cohort (BMC Public Health. 2016;16:122). Participants were categorized into lean, overweight, and obese groups