peripheral immune markers to detect HCC in a large cohort of South American patients and a sub-group of viral hepatitis-related HCC.

Materials and Methods: Through the ESCALON network, we prospectively evaluated 127 individuals with HCC and 113 cirrhotic controls from 3 countries in South America (Argentina, Brazil and Ecuador). 42% of HCC cases were related to viral hepatitis B or C. Blood samples were analyzed for 37 unique interleukins, chemokines and growth factors using a multiplex Bio-Rad platform. We used leave-one-out cross-validation (LOOCV) to compute a ROC curve.

Results: Median age for HCC patients was 68 y/o and for controls 62 y/o. 70% of cases and 55% of controls were males. 55% of HCCs were under 5cm in diameter. The most common causes of HCC were viral hepatitis (42%) and NAFLD (23%). Twenty-two markers showed a significant difference between cases and controls. Three markers (IL-12p40, Beta-NGF and Gro-alpha) were exclusively dysregulated in viral hepatitis related HCC compared to other HCCs. From all causes of HCCs, we identified five cytokines (MIP-3a, MIG, CCL-25, MDC, and HGF) that were differentially regulated in HCCs compared to cirrhosis controls. ROC analysis of the top-5 markers in HCC cases exclusively related to viral hepatitis showed an AUROC of 0.816 (CI 0.783-0.886). The same panel applied to HCC <5cm related to viral hepatitis showed an AUROC of 0.751 (CI 0.671-0.832).

Conclusions: Our study identified a set of 5 cytokines in South American patients that can differentiate HCC from cirrhosis controls in patients with viral hepatitis. The 5 cytokines showed a lower prediction power for HCCs <5cm (likely due to the small size of this cohort).

https://doi.org/10.1016/j.aohep.2023.101036

O-30 ALCOHOL-HARM PARADOX IN LATIN AMERICA: HOW TO STUDY IT DESPITE DATA LIMITATIONS? THE CHILEAN EXPERIENCE

Juan Pablo Roblero[1], Pablo Roblero[2], Juan Pablo Arab[3], Jaime Poniachik[1], Ramon Bataller[4], Luis Antonio Díaz[3]

[1] *Department of Medicine, University of Chile, Santiago, Chile*
[2] *Sociology Institute, Pontifical Catholic University of Chile, Santiago, Chile*
[3] *Gastroenterology Department, Pontifical Catholic University of Chile, Santiago, Chile*
[4] *Center for Liver Diseases, University of Pittsburgh, Pittsburgh, United States*

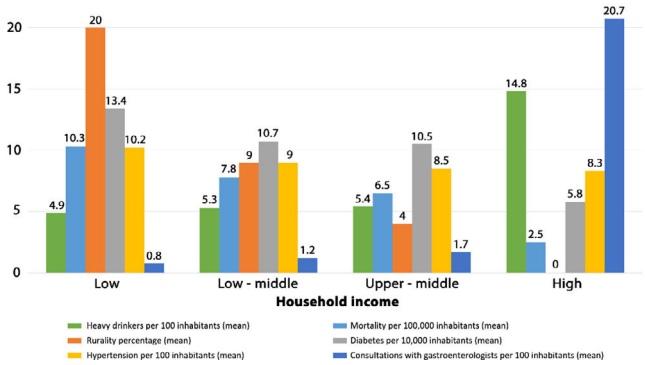
Introduction and Objectives: Research on the "Alcohol-Harm Paradox" (AHP) investigates why low-income individuals have more alcohol-related harm despite lower alcohol consumption (AC). Possible explanations have been evaluated in Europe and the US, but data constraints make it difficult in Latin America (LATAM). This study aimed to design a strategy to study the AHP in LATAM's restricted-data context, recognize its strengths and limitations, and identify possible explanations in the Chilean experience. The AHP is expected to be explained by the unequal distribution of comorbidities, risk behaviors, consumption patterns, rurality, education, access to health, social capital, and mental health.

Materials and Methods: We first evaluated our hypothesis at the individual level with data from the 2016-17 National Health Survey. We conducted logistic regression models to assess whether the hypothesized explanatory factors mediated the effect of AC on liver disease. Second, we aggregated at the municipal level registry data on deaths from alcohol-related liver disease (Ministry of Health Statistics) and survey data on AC and the hypothesized explanatory factors (National Drug Survey and National Survey of Socioeconomic Characterization) to test our hypothesis using mortality as the outcome of negative binomial regression models.

Results: The first analysis suggests that the AHP exists among Chilean men and it is explained by the unequal distribution of metabolic syndrome, diabetes, obesity, smoking, heavy episodic drinking, rurality, education, social support, and depression. The second analysis reinforces these findings and highlights the explanatory potential of healthcare-access inequality (Figure 1).

Conclusions: The proposed analyzes support our hypothesis in Chile. They can be replicated in other LATAM countries as an effective restricted-data strategy to start investigating the AHP. However, cross-sectional survey analyzes are limited by reverse causation and aggregate data analyses by ecological fallacy. Better access to administrative data with patient identifier is needed to generate accurate longitudinal evidence on the explanatory mechanisms.

Figure 1. Variation in the explanatory factors of the AHP according to the median household income of the municipalities



https://doi.org/10.1016/j.aohep.2023.101037

O-31 DIAGNOSTIC PERFORMANCE OF BAVENO VII CRITERIA FOR EXCLUSION OF ESOPHAGEAL VARICES: A RETROSPECTIVE STUDY

Williams Celedonio Campos[1], Celide Campoverde-Cueva[2], Brayan Campos[3], Rommel Zambrano-Huailla[1], Alejandra Zevallos[2], Jorge Garavito-Renteria[1,2]

[1] *Liver Unit, Gastroenterology Service, Arzobispo Loayza National Hospital, Lima, Perú*
[2] *Professional School of Human Medicine, Private University San Juan Bautista, Lima, Perú*
[3] *Department of Neurobiology, Duke University, NC, United States*

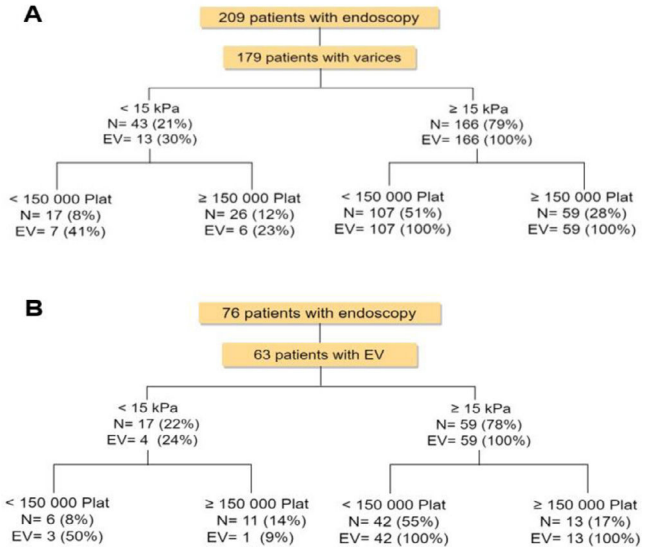
Introduction and Objectives: Cirrhosis is the main cause of patient hospitalization and esophageal variceal bleeding is the most serious decompensation. In recent years, transient elastography (TE) has been shown to be a useful tool for the diagnosis and management of esophageal varices (EV). The purpose of this study was to validate the Baveno VII criteria in patients with chronic liver disease in order to exclude the presence of EV.

Materials and Methods: A retrospective study was conducted with cirrhotic patients who underwent upper endoscopy and TE from January 2017 to December 2019. ROC analyses were conducted to determine cut-off values for ruling out EV. We evaluated the performance of the Baveno VII criteria (liver stiffness measurement (LSM) <15 kPa and platelet count >150 $\times$ 10^9 cells/L) for the identification of EV and sparing endoscopies.

Results: The study included 209 patients. The mean (SD) age was 59.4 (12.9) years, the mean MELD-Na was 11.7 (4.5), the mean platelet count value was 148.3 (75.2) x 10^9cells/L and the mean LSM was 27.21 (14.6) kPa. The prevalence of EV was 85.6% and the most frequent etiology of cirrhosis was MAFLD (63,6%). Considering all etiologies, the Baveno VII criteria showed a sensitivity of 96.7% (95% CI 92.3-98.8%) and a negative predictive value of 76.9% (95% CI 56.4-91%) for excluding EV. However, when MAFLD patients were excluded, the Baveno VII criteria presented a better diagnostic performance [sensitivity of 98.4% (95% CI 79.2 – 99.2%) and negative predictive value of 90.9% (95% CI 79.2 – 99.2%)]. Additionally, the Baveno VII criteria would allow sparing 14% of upper gastrointestinal endoscopies with a risk of 9% of missed esophageal varices.

Conclusions: : The Baveno VII correctly identified esophageal varices in cirrhotic patients without MAFLD of our cohort, allowing us to avoid up to 14% of upper endoscopies with a low risk of missed esophageal varices.

Figure: Performance of the Baveno VII criteria to spare endoscopies and to identify esophageal varices (EV) in all etiologies (A) and without MAFLD (B)



https://doi.org/10.1016/j.aohep.2023.101038

O-32 FULMINANT AUTOIMMUNE HEPATITIS: CLINICAL PRESENTATION, OUTCOME AND PROGNOSTIC FACTORS.

Alejandra Villamil[1,2], Marlene Padilla[1,2], Eduardo Mullen[2], Juan Carlos Bandi[3], Gabriel Carballo[4], Natalia Sobenko[1,2], Sebastian Marciano[2]

[1] *Liver Autoimmunity Unit, Buenos Aires Italian Hospital, Buenos Aires, Argentina*
[2] *Liver Section, Buenos Aires Italian Hospital, Buenos Aires, Argentina*
[3] *Department of Anatomic Pathology, Buenos Aires Italian Hospital, Buenos Aires, Argentina*
[4] *Molecular Immunobiology Laboratory, Buenos Aires Italian Hospital, Buenos Aires, Argentina*

Introduction and Objectives: Early identification of fulminant autoimmune hepatitis could be lifesaving or prevent liver transplantation, but rapid diagnostic and prognostic criteria are lacking. This study aimed to assess the clinical features and outcomes of fulminant AIH. –To analyze prognostic factors related to poor outcomes (requirement of transplantation or death).

Materials and Methods: We retrospectively reviewed 307 consecutive patients evaluated for fulminant hepatic failure (1994-June 2020) in our Unit. Patient work-up consisted of viral serologies, autoantibodies, gammaglobulin, drug screening and ceruloplasmin. Since 2003, selected hemodynamically and neurologically stable patients have received a transjugular liver biopsy.

Results: 86 patients (28,01%) fulfilled the criteria for fulminant AIH (AIH simplified criteria). Seven were excluded from analysis due to cirrhosis Oral meprednisone 60 mg or via nasogastric tube was started at diagnosis in 67 patients until death, transplantation, recovery or futility. Biochemical and clinical variables were analyzed. One patient developed hyperacute encephalopathy, 33 within 7/28 days post jaundice (41.7 %) and 45 (55.9 %) subacute encephalopathy (>28 days). 63/79 patients died or required liver transplantation (median time 7.8 days,1-34 days). 48 (60 %) patients underwent LT, 16 (20%) patients survived, and 16 (20 %) died without LT. Seven transplanted patients died early post OLT (infectious n=5, neurological complications n=2). Variables associated with bad prognosis were: prothrombin time < 20% or grade IV encephalopathy at steroid initiation, LC+ or LKM-1 +, massive necrosis, no >20% improvement of prothrombin time by day three post-steroids ($p<0.05$). Patients diagnosed before 2003 had the worst prognosis (87 vs. 71%), probably related to the shorter time to diagnosis since the introduction of biopsy (2.1± 1.7 days vs. 4.6±2.1 days, $p<0.05$). Among patients who recovered, 5/16 were weaned from immunosuppression at a median of 4.5 years of treatment without relapse.

Conclusions: The disease course is aggressive, with death or requirement of liver transplantation in 80 % of patients. Early diagnosis and treatment may improve survival.

https://doi.org/10.1016/j.aohep.2023.101039

O-33 PREVALENCE OF HIGH-RISK NON-ALCOHOLIC STEATOHEPATITIS ACCORDING TO THE FAST® INDEX IN A GROUP OF DIABETIC PATIENTS

Andrés Burak-Leipuner[1], Fatima Higuera-de la Tijera[1], Alfredo Servín-Caamaño[2], Javier Romero-Bermúdez[2], Laura Ceceña-Martínez[2], Felix García-Gorrosquieta[1], Kevin Vázquez-Hernández[2], Nidia Uribe-Rivera[1], Pablo Alagón-Fernández del Campo[1], Farid Vargas-Duran[1], Christian Hinojosa-Segura[1], Diana Montemira-Orozco[1], José Luis Pérez-Hernández[1]

[1] *Gastroenterology Department, Mexican General Hospital "Dr. Eduardo Liceaga", Mexico City, Mexico*
[2] *Internal Medicine Department. Mexican General Hospital "Dr. Eduardo Liceaga", Mexico City, Mexico*

Introduction and Objectives: Diabetes is a high-risk condition for the progression of metabolic fatty liver disease (MAFLD). The FAST® index combines the result of transition elastography (Fibroscan®) and AST levels and is used to predict the risk of suffering from non-alcoholic steatohepatitis (NASH) with a high risk of progression (NAS >4, F>2). This study aimed to know what proportion of diabetic patients is at risk of suffering from high-risk NASH according to the FAST® index.

Materials and Methods: Observational, transversal study to estimate prevalence. Diabetic patients who agreed to perform Fibroscan® and liver biochemical profile were included, and the FAST® index was