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Abstracts of the 2025 Annual Meeting of the ALEH (Asociación Latinoamericana para el Estudio del Hígado)

#39

DRUG-INDUCED DUCTOPENIA IN THE SPANISH AND LATINDILI REGISTRIES

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Introduction and Objectives: Ductopenia is a rare phenotype of drug-induced liver injury (DILI), usually emerging after prolonged cholestasis. This study aimed to evaluate the clinical, histological, and outcome features of drug-induced ductopenia (DID) using data from the Spanish and LATINDILI registries.

Materials and Methods: Among 1,564 DILI cases (Spanish: 1,037; LATINDILI: 527), 10 cases met criteria for DID, defined as vanishing interlobular bile ducts in >50% of portal tracts. Clinical, biochemical, and histological data, along with outcomes, were analyzed.

Results: The mean age of DID patients was 50 ± 19 years; 45% were female. Clinical presentation was hepatocellular in 40%, mixed in 40%, and cholestatic in 20%. Causative agents included ciprofloxacin, amoxicillin-clavulanate, metformin, ticlopidine, stanozolol, carbamazepine, sertraline, captopril, and droxicam. Jaundice was present in 90%, and 80% required hospitalization. Rash and eosinophilia occurred in 40%, and autoantibodies were found in two cases. Median onset time was 34 days; therapy duration averaged 32 days. Mean biochemical values: AST 4.3×ULN, ALT 8.9×ULN, ALP 2.8×ULN, GGT 10×ULN, and total bilirubin 11 mg/dL. Liver histology revealed cholestasis, portal inflammation, fibrosis, ductular reaction, and interface hepatitis. Compared to non-ductopenic DILI cases in both networks, DID patients had similar latency and clinical patterns but showed higher rates of hypersensitivity. Outcomes were favorable, with no fatalities. Liver tests normalized within 2 months to 2 years (median 3.5 months).

Conclusions: Drug-induced ductopenia is marked by pronounced hyperbilirubinemia and frequent hypersensitivity features. Unlike other series, it shows a benign course with full recovery in all reported cases.

Conflict of interest: None

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#93

VALIDATION OF NONINVASIVE CLINICAL PATHWAYS TO IDENTIFY ADVANCED

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Introduction and Objectives: Limited data exist on non-invasive clinical algorithms for MetALD and ALD. We aimed to (1) quantify the false-negative rate of standard algorithms combining Fibrosis-4 index (FIB-4) and vibration-controlled transient elastography (VCTE) for detecting advanced fibrosis in MetALD and ALD, and (2) evaluate the diagnostic accuracy of FIB-4 for advanced fibrosis in MetALD.

Materials and Methods: Retrospective cohort including 764 well-characterized adults with MetALD (n=334, 43.7%) or ALD (n=430, 56.3%) from 14 countries (2003–2025) according to the 2023 criteria; other concomitant liver diseases were excluded. All underwent VCTE (>8 kPa considered elevated); 244 (31.9%) also had liver biopsy. FIB-4 was categorized as low risk <1.3, indeterminate 1.3–2.67 (2.0–2.67 if ≥65 years), and high risk >2.67. Analysis included AUROC curves.

Results: Mean age was 49.5 years (IQR 41–59); 73.1% were male; mean BMI 28.0 kg/m^2 (IQR 24.1–31.6); 32.2% had diabetes. Median FIB-4 was 1.57 (IQR 0.92–3.29); median LSM 8.6 kPa (IQR 5.9–22.3). Among those biopsied (n=244), 14.3% had F3 and 11.9% had cirrhosis (F4). Of the low FIB-4 group, 28.1% had elevated VCTE (32.0% MetALD; 24.9% ALD). Sixteen participants classified as low-risk by both FIB-4 and LSM had ≥F3 fibrosis on biopsy—false-negative rate 6.6% overall (5.7% MetALD; 7.4% ALD) (Figure). In MetALD, FIB-4 yielded an AUROC of 0.736 (95%CI:0.610–0.863) for ≥F3 fibrosis; the optimal cut-point was ≥1.65 (sensitivity 74%, specificity 73%). Applying ≥1.65 to participants over 65 years with MetALD reduced the false-negative rate to 2.0%, while the referral rate rose only from 30.3% to 33.6%.

Conclusions: Standard noninvasive pathways combining FIB-4 and VCTE had low false-negative rates for advanced fibrosis in MetALD and ALD. In patients with MetALD aged +65 years, lowering the FIB-4 threshold to ≥1.65 may improve advanced fibrosis detection.

Conflict of interest: None

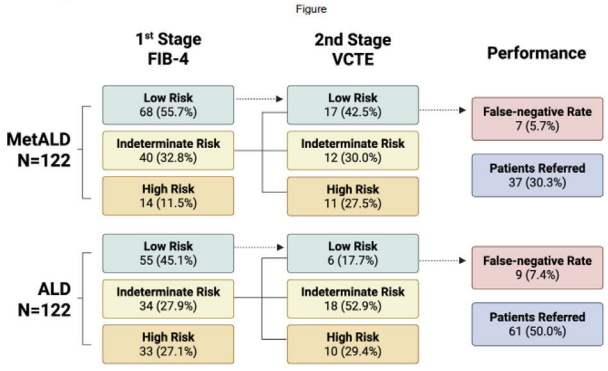

Figure: Performance of the clinical algorithms using the Fibrosis-4 index (FIB-4) and vibration-controlled transient elastography (VCTE) to detect advanced fibrosis in metabolic dysfunction–associated steatotic liver disease (MetALD) and alcohol-associated liver disease (ALD).

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#95

CHOLANGIOCARCINOMA IN INDIVIDUALS WITH CHRONIC LIVER DISEASE IS DIAGNOSED EARLIER, LEADING TO BETTER PROGNOSIS

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Introduction and Objectives: Cholangiocarcinoma (CCA) incidence and mortality are rising globally. Chronic liver diseases (CLD) are recognized risk factors. This study aimed to compare the clinical presentation and outcomes of CCA in patients with and without CLD, using data from the International CCA Registry.

Patients and Methods: The international CCA Registry is a multicenter observational study enrolling cases from 54 centers across Latin America, Europe, and Asia (2010–2024).

Results: Among 3,693 patients enrolled, 916 had CLD and 2,777 did not. Common CLD conditions were fatty liver disease, cirrhosis, viral hepatitis, and primary sclerosing cholangitis. Compared to non-CLD patients, those with CLD were more often male (69% vs. 53%), younger at diagnosis (63 vs. 66 years), and had higher rates of metabolic risk factors, alcohol use, and smoking. Intrahepatic CCA was more frequent in CLD patients (64% vs. 43%), whereas distal CCA was more common in non-CLD cases (20% vs. 9%). CLD patients had better performance status (ECOG 0: 53% vs. 35%), lower CA19-9 levels (59.0 vs. 134.5 U/mL), and more localized disease (56% vs. 48%). Curative-intent surgery was more frequent in the CLD group (59% vs. 48%), translating into longer median overall survival (12.3 vs. 11.0 months) and higher 5-year survival (OR = 1.67; $p < 0.001$). The benefit was especially evident in intrahepatic CCA. Treatment responses were comparable between groups.

Conclusions: CCA is diagnosed at earlier stages in individuals with CLD, likely due to certain clinical surveillance, leading to better prognosis. Prospective validation and standardized surveillance protocols are warrant.

Conflict of interest: None

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#98

PERFORMANCE OF NON-INVASIVE TESTS (NITS) AND PREDICTORS OF OUTCOMES IN PATIENTS WITH METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE (MASLD) FROM LATIN AMERICA AND NORTH AMERICA

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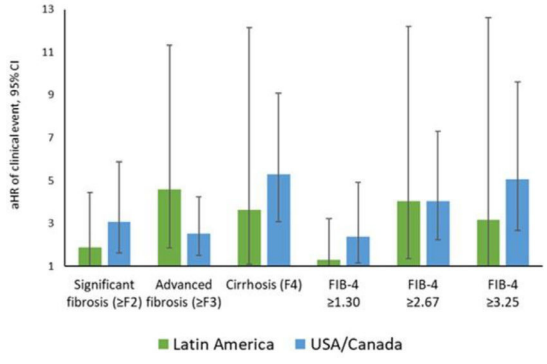
Introduction and Objectives: MASLD is highly prevalent worldwide. We evaluated performance of NITs and predictors of outcomes in patients with MASLD from Latin America (LA) as compared to North America (NA).

Patients and Methods: The Global-MASLD project enrolled MASLD patients with liver biopsies and NITs (FIB-4, liver stiffness measurement (LSM) by transient elastography). NITs' performance to predict advanced fibrosis (AF=F3-F4) and outcomes was assessed.

Results: A total of 3,904 MASLD patients were included [N=892 from 5 LA countries (Argentina, Brazil, Chile, Cuba, Mexico) and N=3012 from NA (USA/Canada). MASLD patients from LA were older, had lower BMI (obesity 64% vs. 85%), more lean MASLD (5.6% vs. 2.7%), more T2D (49% vs. 38%) ($p<0.001$) but similar rates of AF ($p=0.56$). Clinico-demographic predictors of AF included older age and T2D ($p<0.05$). The NIT accuracy was lower in LA-MASLD than NA-MASLD: AUC (95% CI) of FIB-4 0.75 (0.71-0.79) vs. 0.81 (0.79-0.83), LSM 0.73 (0.67-0.80) vs. 0.78 (0.75-0.81), Agile-3+ 0.76 (0.70-0.82) for both LA and NA. Sensitivity of 80% (low-risk, screening cutoff) was achieved with FIB-4 ≥1.01 in LA vs. FIB-4 ≥1.17 in NA; specificity of 95% (high-risk, diagnostic cutoff) with FIB-4 ≥2.35 vs. FIB-4 ≥2.40. In adjusted (age, sex, T2D) proportional hazards models, fibrosis severity by histology or NITs was associated with adverse outcomes (death, decompensation, HCC) in both groups (adjusted hazard ratios (aHR) >1.0) (Figure).

Conclusions: MASLD patients from LA have more T2D but less obesity than NA. Common NITs have lower accuracy in LA-MASLD. Histologic and NIT stage of fibrosis are independent predictors of adverse outcomes in both groups.

Conflict of interest: None



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#127

ACCELERATED PROGRESSION TO CIRRHOSIS AND HEPATIC DECOMPENSATION IN METALD AND ALD COMPARED TO MASLD: A GLOBAL STUDY

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Introduction and Objectives: The natural history of MetALD remains poorly characterized. In a large global cohort, we compared the natural history of the main steatotic liver disease (SLD) subtypes in terms of liver fibrosis progression and hepatic decompensation.

Materials and Methods: Retrospective cohort study of adult participants with SLD (2003–2025), including MASLD, MetALD, and ALD according to the 2023 SLD criteria. Sociodemographic and clinical data, vibration-controlled transient elastography (VCTE) parameters, and liver biopsy (when available) were recorded. Other causes of liver disease were excluded. The primary outcome was progression to cirrhosis in those without cirrhosis at baseline (defined by 1. liver biopsy, or 2. VCTE ≥13.6 kPa, or Fibrosis-4 [FIB-4] >3.25 if other techniques were missing). Secondary outcomes included incidence of hepatic decompensation (ascites, hepatic encephalopathy, variceal bleeding, or hepatorenal syndrome). A multivariable Cox regression adjusted by age, sex, race, body mass index, diabetes, hypertension, hyperlipidemia, and smoking (for HCC) was performed.

Results: The total cohort included 150,306 participants from 15 countries; 87.5% MASLD, 7.9% MetALD, and 4.6% ALD. Overall, the median age was 61 years [IQR 51–70]; 52.8% men, and 97.6% Asian. At baseline, 12.2% of the cohort had a liver biopsy with F4 or a VCTE/FIB-4 suggestive of cirrhosis. During a median follow-up of 2.1 years [IQR 0.6–4.7], 0.9% of participants progressed to cirrhosis and 0.4% had hepatic decompensations. Individuals with MetALD and ALD exhibited a higher risk of progression to cirrhosis (MetALD aHR 1.34, 95%CI: 1.06–1.68, p=0.013; ALD aHR 1.82, 95%CI: 1.41–2.35, p<0.0001; MASLD: reference) and of hepatic decompensation (MetALD aHR 9.33, 95%CI: 6.32–13.75, p<0.0001; ALD aHR 20.56, 95%CI: 13.86–30.48, p<0.0001).

Conclusions: In this multi-ethnic global cohort, MetALD and ALD were associated with more rapid cirrhosis progression and greater decompensation rates than MASLD, independent of cardiometabolic factors.

Conflict of interest: None

Figure

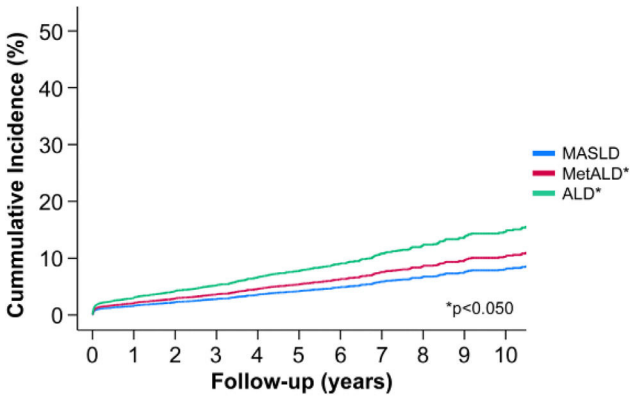

Figure. Cumulative incidence of incident cirrhosis by steatotic liver disease subtype. Participants with baseline cirrhosis—defined by (1) histologic stage F4, (2) liver stiffness ≥13.6 kPa on vibration-controlled transient elastography, or (3) Fibrosis-4 index >3.25—were excluded. Cox models were adjusted for age, sex, race, body mass index, diabetes, hypertension, and hyperlipidemia.

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#14

FACTORS ASSOCIATED WITH HEALTH LITERACY IN PATIENTS DIAGNOSED WITH LIVER CIRRHOSIS IN COLOMBIA

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Introduction and Objectives: Health literacy (HL) refers to a patient's ability to obtain, process, and understand medical information needed to make informed health decisions. Low HL is associated with increased healthcare costs, higher hospitalization rates, reduced access to transplantation, and increased mortality—especially among vulnerable populations. In patients with cirrhosis, HL has been linked to sex, education, employment, and disease etiology in other countries, but data are scarce in Latin America. This study aimed to identify factors associated with HL in patients with liver cirrhosis in Cartagena, Colombia.

Patients and Methods: We conducted a cross-sectional, analytical study between September and December 2024. Adults with a confirmed diagnosis of cirrhosis completed the validated Spanish version of the Short Assessment of Health Literacy (SAHL-S). Scores below 14 indicated inadequate HL. A separate, validated questionnaire assessed disease-specific knowledge across four domains: diagnosis, signs/symptoms, treatment, and medication.

Results: A total of 93 patients were analyzed (61.2% female; mean age: 63.9±11.7 years). MASLD and cryptogenic cirrhosis were the

most common etiologies (30% each), and 80% were Child-Pugh A. Adequate HL was found in 79.6% (mean SAHL-S score: 15.3). Knowledge was highest for treatment (77%) and lowest for signs/symptoms (65%).

Multivariable analysis identified higher education (OR 1.81), number of dependents (OR 2.03), and employment (OR 2.2) as positive predictors of HL. Older age (OR 0.95) and hypertension (OR 0.32) were negatively associated.

Conclusions: One in five cirrhotic patients had suboptimal HL, especially regarding symptom recognition. Sociodemographic and clinical factors should guide patient-centered interventions.

Conflict of interest: None

Table

Variable	n = 93
Female sex	61.2%
Mean age (SD) years	63.9 (11.7)
In a relationship	74.2%
Completed secondary education	35.5%
Urban residence	86%
Unemployed/retired/pensioned	60%
MASLD etiology	30%
Cryptogenic etiology	30%
Child-Pugh A	80%
Mean SAHL-S score	15.33
Adequate health literacy	79.6%
Basal Characteristics	

Factor	Odds Ratio (OR)	95% Confidence Interval (CI)	p-value
Education level	1,81	1.24 – 2.61	<0.001
Number of dependents	2,03	1.23 – 3.33	0.01
Employment status (employed)	2,2	1.09 – 4.51	0.03
Age	0,95	0.90 – 0.99	0.02
History of hypertension	0,32	0.12 – 0.85	0.02

Multivariate Analysis of Factors Associated With Health Literacy in Cirrhotic Patients

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#23

MELD 3.0 PERFORMANCE: EXTERNAL VALIDATION IN A LATIN AMERICAN TRANSPLANT LIVER COHORT

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Introduction and Objectives: The MELD 3.0 score has demonstrated superior discriminatory performance for predicting 90-day waitlist mortality among liver transplant (LT) candidates in the US. This study aimed to validate the MELD 3.0 in a Latin American cohort.

Materials and Methods: Retrospective cohort study including adults LT candidates listed between 2016-2023 across five Latin American countries. Baseline data were registered at listing. Cox regression model was performed, with 90-day mortality as the primary outcome and LT as censored observation. Discriminative performance was assessed using Harrell's c-index for MELD, MELD-Na and MELD 3.0. Net Reclassification Index (NRI) was also calculated.

Results: We included 1,013 patients: mean age 51 years (±11.8); 41.4% females, 25.8% obese, 58.1% ascites and 38.3% had encephalopathy were present in 58.1% and 38.3% of cases, respectively. Median MELD score was 16.9 (IQR 13.3–21.1), MELD-Na 18.3 (IQR 14.6–24), and MELD 3.0 19.5 (IQR 15.1–24.8). At 90 days, 26.3% underwent LT and 66.8% remained on the waitlist. The mortality incidence was 29.4 deaths per 1,000 patient-months, with a cumulative mortality of 8.3% (95% CI 6.6–10.4%) at 3 months. Hazard ratios for 90-day mortality were: MELD 1.15 (95% CI 1.12-1.19), MELD-Na 1.16 (95% CI 1.13-1.20), and MELD 3.0 1.15 (95% CI 1.12-1.19). Harrell's c-index showed no significant differences (Table 1).NRI showed no significant improvement in risk reclassification using MELD 3.0.

Conclusions: In a region showing high waitlist mortality, MELD 3.0 did not demonstrate superior predictive performance over MELD or MELD-Na. These findings highlight the need for regional validation of predictive models before implementation in transplant prioritization policies.

Conflict of interest: None

Table 1: Discriminative Performance of MELD-Based Scores for Predicting 90-Day Waitlist Mortality

Model	Harrell's C-index	95% Confidence Interval	p vs MELD	p vs MELD-Na
MELD	0.809	0.76 – 0.86	—	—
MELD-Na	0.821	0.77– 0.86	0.41	—
MELD 3.0	0.822	0.78 – 0.87	0.27	0.88
MELD 3.0 (no Alb)	0.822	0.78– 0.87	0.25	0.81

Note: All models evaluated at the time of listing. No statistically significant difference in discrimination was observed between scores.

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#49

HEPATITIS C SCREENING AND GENDER DISPARITIES IN POSITIVITY RATES IN ARGENTINA

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Introduction and Objectives: Hepatitis C virus (HCV) infection is a major public health issue in Argentina. Despite effective antiviral therapies, many cases remain undiagnosed. Gender-based differences in healthcare access may influence screening practices and positivity rates.

To estimate overall HCV seropositivity, assess differences in testing and positivity rates by gender, and evaluate the association between HCV infection and mortality.

Materials and Methods: We conducted a retrospective study of 108,276 anti-HCV tests performed on 74,503 adults between 2015−2023. Samples were collected from 64 low- and intermediate-complexity public health centers and one tertiary hospital. Variables included age, sex, testing site, and HCV result. We used t-tests and chi-square tests for group comparisons. Mortality was compared with a matched HCV-negative control group.

Results: Of the 74,503 individuals tested, 1,101 (1.48%) were HCV-positive. Women comprised 80% of those tested but had a positivity rate of only 0.76% (451/59,602), while men (20% of the tested population) had a positivity rate of 4.29% (639/14,901), representing 58% of all positive cases. Positivity was higher in the tertiary hospital (5.1%) than in peripheral centers (0.5%). At the time of analysis, 25% of HCV-positive individuals were deceased. Mortality risk was significantly higher in HCV-positive patients versus matched controls (OR: 4.9, 95% CI: 3.7−6.4; p<0.001).

Conclusions: Men are less frequently tested but show a markedly higher HCV positivity rate. These findings highlight gender gaps in detection and support implementing targeted screening and linkage-to-care strategies to improve outcomes in underdiagnosed populations.

Conflict of interest: None

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#52

TEMPORAL TRENDS IN CHARACTERISTICS AND OUTCOMES OF SIMULTANEOUS LIVER−KIDNEY TRANSPLANT RECIPIENTS IN LATIN AMERICA FROM 2003 TO 2025

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Introduction and Objectives: Tracking simultaneous liver−kidney transplantation SLKT trends supports clinical decision-making, center-level improvements, and regional policy development. We aimed to describe changes in donor and recipient characteristics, transplant indications, and 1-year outcomes in Latin America from 2003 to 2025.

Materials and Methods: Retrospective cohort study including SLKT recipients from seven Latin American countries. Data were analyzed across six eras: 2003−2009, 2010−2013, 2014−2016, 2017−2018, 2019−2021, and 2022−2025. Outcomes included 1-year patient survival and 1-year renal function (estimated glomerular filtration rate (eGFR) ≥ 45 mL/min/1.73 m^2, a surrogate of adequate graft performance linked to favorable long-term outcomes).

Results: A total of 305 patients were included. Recipient age and sex remained stable. Diabetes prevalence increased from 6% to 46%; hypertension and dyslipidemia varied minimally. Indications for liver transplantation shifted: cirrhosis declined from 82% to 56%, while polycystic disease rose to 26%. HCV-related cirrhosis fell from 38% to 18%; MASLD increased from 11% to 37%. Alcohol-related cirrhosis fluctuated, peaking at 48%. Diabetes became the leading indication for kidney transplantation, while glomerulonephritis declined. MELD exceptions increased, reaching 50% by 2022−2025. Donor characteristics remained stable. One-year survival improved from 66% (95% CI, 49−82) to 92% (95% CI, 84−100). Approximately 70% of recipients met the threshold of eGFR ≥ 45 across all periods.

Conclusions: Despite a more complex recipient profile and evolving transplant indications, SLKT outcomes in Latin America have shown steady improvement over the past two decades. This progress reflects the growing expertise and coordination within transplant systems, highlighting the need to sustain region-specific data collection efforts.

Conflict of interest: None

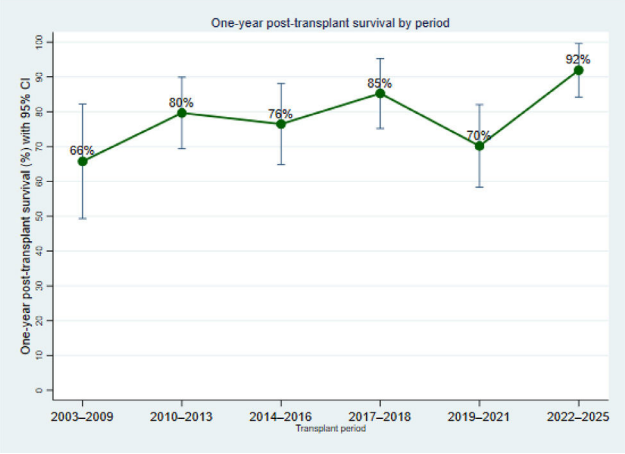
Table 1. Recipient and donor characteristics over time (n=305).

	2003–2009 (n=33)	2010–2013 (n=59)	2014–2016 (n=51)	2017–2018 (n=48)	2019–2021 (n=57)	2022–2025 (n=57)
RECIPIENT						
Age (median, IQR)	55.2 (45.5–59.8)	56.6 (48.6–61.6)	56.2 (48.6–62.0)	54.6 (46.3–62.0)	58.8 (50.1–64.9)	54.2 (42.8–60.2)
Male	67%	56%	61%	65%	72%	56%
BMI (median, IQR)	23.0 (22.0–27.0)	24.0 (22.0–27.0)	24.0 (22.0–30.0)	24.0 (22.0–28.0)	26.0 (24.0–29.0)	24.0 (21.0–25.0)
Diabetes	17%	38%	33%	29%	46%	33%
Dyslipidemia	14%	19%	18%	13%	23%	17%
Chronic RRT*	64%	51%	59%	58%	46%	61%
MELD-Na (median, IQR)	28.0 (23.8–33.2)	23.7 (20.2–30.7)	24.0 (19.6–31.5)	22.5 (20.1–27.3)	21.3 (16.9–27.0)	22.5 (18.7–27.5)
MELD exception	32%	34%	32%	36%	37%	54%
Cirrhosis vs liver PKD**	82% / 12%	63% / 27%	69% / 23%	73% / 19%	72% / 12%	56% / 26%
CIRRHOSIS ETIOLOGY						
MASLD	11%	19%	31%	17%	29%	37%
ALD	26%	32%	11%	49%	46%	25%
HCV	37%	38%	23%	20%	19%	19%
HBV	7%	3%	0%	14%	7%	9%
PBC	0%	5%	11%	6%	2%	6%
AIH	4%	5%	9%	6%	5%	6%
CKD ETIOLOGY						
Diabetic nephropathy	6%	22%	23%	19%	26%	26%
Hypertensive nephropathy	3%	15%	2%	8%	7%	14%
Glomerulonephritis	15%	14%	14%	19%	5%	5%
PKD	15%	29%	23%	21%	16%	32%
Other/Unknown	54%	34%	47%	35%	46%	40%
DONOR						
Age (median, IQR)	32.0 (20.0–46.0)	32.5 (21.5–42.5)	34.0 (27.0–50.0)	32.0 (20.5–42.0)	41.0 (27.0–53.0)	34.0 (25.0–46.0)
Male	66%	59%	68%	75%	58%	54%
BMI (median, IQR)	24.0 (22.5–27.0)	24.0 (23.0–28.0)	25.0 (24.0–26.5)	24.5 (23.0–26.0)	26.0 (23.0–28.0)	25.0 (23.0–27.0)
Creatinine (median, IQR)	1.0 (0.6-1.2)	1.0 (0.7-1.1)	0.9 (0.7-1.1)	0.9 (0.8-1.2)	1.0 (0.6-1.3)	0.9 (0.7-1.1)
Na (median, IQR)	152.5 (141.0–164.0)	151.0 (145.0–158.0)	151.0 (149.0–157.0)	150.0 (145.0–161.0)	150.0 (144.0–157.0)	151.5 (145.5–160.0)

* Chronic RRT includes patients on maintenance dialysis or with prolonged need for renal replacement therapy prior to transplant.
** Cirrhosis vs liver PKD refers to the primary liver indication for transplantation. Categories are mutually exclusive.

Abbreviations:
AIH, Autoimmune hepatitis; ALD, Alcohol-related liver disease; BMI, Body mass index; CKD, Chronic kidney disease; HBV, Hepatitis B virus; HCV, Hepatitis C virus; IQR, Interquartile range; MASLD, Metabolic dysfunction-associated steatotic liver disease; MELD-Na, Model for End-Stage Liver Disease–Sodium; Na, Serum sodium; PKD, Polycystic kidney disease; PBC, Primary biliary cholangitis; RRT, Renal replacement therapy.

One-year post-transplant survival by period.



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#53

EVIDENCE-BASED DIGITAL SUPPORT IN HEPATOLOGY: RETRIEVAL-AUGMENTED GENERATION'S ROLE IN AUTOIMMUNE LIVER DISEASES MANAGEMENT

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Introduction and Objectives: Autoimmune liver diseases (AILDs) present significant diagnostic and management challenges. Following our initial evaluation of Large Language Models (LLMs), we developed and assessed three specialized Retrieval-Augmented Generation (RAG) systems. These systems incorporated comprehensive clinical guidelines and medication safety information to enhance decision support accuracy. Our aim was to evaluate the effectiveness of Retrieval-augmented AI systems in providing evidence-based recommendations for AILD management.

Materials and Methods: We engineered three distinct RAG systems: HepaChat, RAG-ChatGPT, and RAG-Claude. Each system integrated 13 international clinical guidelines spanning AIH, PBC, and PSC management. Additionally, we incorporated a comprehensive database containing 12,465 FDA medication warnings to ensure safety protocol adherence. Ten liver specialists (six European, four American) evaluated system responses to 56 standardized clinical questions using a 1-10 Likert scale. Questions addressed disease comprehension, therapeutic approaches, and clinical decision-making across all three major AILDs.

Results: Quantitative analysis revealed HepaChat's superior performance (mean score 7.58±1.48) with 33 best-rated responses, compared to RAG-Claude (7.22±1.58, 12 best-rated) and RAG-ChatGPT (7.21±1.67, 9 best-rated). Geographic stratification unveiled variations in evaluation patterns (Americas: 7.97 vs Europe: 6.40). Disease-specific analysis demonstrated HepaChat's excellence in AIH (Europe: 7.12, Americas: 8.17) and PSC management in Europe (6.89), while achieving optimal performance in AIH and PBC in the Americas (8.17 and 8.37, respectively). All three systems showed marked improvement over conventional LLMs (2023 benchmark: 6.72±1.67).

Conclusions: This evaluation demonstrates that specialized RAG systems incorporating clinical guidelines and safety protocols can significantly enhance AILD management support. Geographic variations in assessment highlight the importance of considering regional clinical perspectives in AI system development.

Conflict of interest: None

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#66

EFFECTIVE RE-ENGAGEMENT OF HEPATITIS C PATIENTS: A MULTICENTER STUDY BASED ON LABORATORY RECORDS IN ARGENTINA

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Introduction and Objectives: Hepatitis C virus (HCV) remains a significant cause of global morbidity despite the availability of highly effective direct-acting antivirals (DAAs). In Argentina, fragmented healthcare access and a high prevalence of advanced liver disease underscore the need for re-engagement strategies to achieve HCV elimination. This study aimed to assess the effectiveness of a multicenter re-engagement program for HCV patients lost to follow-up in high-complexity healthcare settings.

Materials and Methods: A multicenter prospective study (March −November 2024) analyzed blood samples from five hospitals to identify HCV antibody-positive patients. Positive cases were contacted to confirm viremia, undergo clinical evaluation, and initiate treatment. Data collected included re-engagement rates, fibrosis staging (FibroScan), genotype distribution, treatment regimens, and sustained virologic response (SVR) rates. Chi-square tests were used to compare positivity rates, genotype distribution, and treatment regimens.

Results: Among 206,053 samples, 3,334 (1.62%) tested positive for HCV antibodies, and 2,149 (64.5%) were potentially eligible for re-engagement. Non-re-engagement causes included deaths (419), previous cure (741), and liver transplants (25). Positive cases were 54.16% male ($p = 0.03$). A total of 422 patients (19.6%) were successfully re-engaged, of whom 311 (73.8%) exhibited advanced fibrosis (≥F2). Genotype 3 prevalence was similar to others ($p = 0.3$). Among re-engaged patients, 167 initiated treatment with Sofosbuvir/Velpatasvir (70.08%), Glecaprevir/Pibrentasvir (29.92%) ($p = 0.12$). Overall SVR12 rate was 97.98% among treated patients. SVR4 was assessed in 112 patients, showing a 100% correlation with SVR12.

Conclusions: This program successfully re-engaged HCV patients lost to follow-up, achieving high SVR12 rates and demonstrating the utility of SVR4 as an early predictor. A significant proportion of patients were unaware of their diagnosis, available treatments, or disease progression. The majority of treated patients had advanced fibrosis, highlighting the need for proactive strategies targeting high-risk populations. These findings underscore the necessity of establishing elimination programs in countries with complex healthcare systems like Argentina.

Conflict of interest: Yes, GILEAD SCIENCES

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#74

LATIN AMERICAN SURVEILLANCE REGISTRY REVEALS HIGHER ANTIMICROBIAL RESISTANCE IN INVASIVE ISOLATES FROM PATIENTS WITH CIRRHOSIS COMPARED TO EUROPEAN BENCHMARKS

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Introduction and Objectives: Given the growing burden of antimicrobial resistance (AMR), we aimed to report the prevalence of key AMR patterns in Latin American patients with cirrhosis and compare them with the European Antimicrobial Resistance Surveillance Network (EARS-Net) data

Materials and Methods: Cross-sectional study of invasive isolates (blood, ascitic or pleural fluid) from adults with cirrhosis enrolled in the Latin American surveillance registry (ClinicalTrials.gov: NCT0634940). AMR patterns were reported for key pathogens: E. coli, K. pneumoniae, S. aureus, Acinetobacter spp., E. faecium, and P. aeruginosa.

Results: Between December 2020 and May 2025, 908 bacterial isolates were collected from Argentina, Uruguay, Brazil, and Peru. Of these, 226 (25%) were obtained from invasive sites and correspond to predefined bacteria of epidemiological interest included in the analysis. Isolates were 39% nosocomial, 38% community-acquired, and 23% healthcare-associated. The main infections were spontaneous bacteremia (38%) and SBP (32%). Quinolone resistance was higher in Latin American vs. Europe for K. pneumoniae (56% vs. 34%) and E. coli (46% vs. 24%). Carbapenem resistance in K. pneumoniae was 46% (vs. 13%),

and in E. coli, 5.3% (vs. 0.3%). Methicillin resistance among S. aureus was higher in Latin American (32%) than in Europe (16%). Other pathogens also showed higher resistance (Table).

Conclusions: The elevated resistance rates observed in Latin American patients with cirrhosis demand attention. In a region where regulatory gaps at multiple levels may contribute to antibiotic misuse, these findings call for urgent action to strengthen rational antibiotic use and implement effective stewardship strategies.

Conflict of interest: None

Comparative Antibiotic Resistance Profile of Invasive Bacterial Isolates: Latin American vs. EARS-Net		
Antibiotics	**Percentage of total with resistance phenotype Latin American**	**Percentage of total with resistance phenotype EARS-net**
Escherichia coli	(n=94)	(n=147,939)
Aminopenicillins	49%	55%
Fluoroquinolones	46.2%	24%
3rd gen cephalosporins	28.7%	16%
Aminoglycosides	6.4%	11%
Carbapenems	5.3%	0.3%
3rd gen cephalosporins + FQ + AG	3.2%	6%
Klebsiella pneumoniae	(n=59)	(n=48,741)
Fluoroquinolones	56%	34%
3rd gen cephalosporins	54.2%	35%
Carbapenems	45.8%	13%
Aminoglycosides	28%	24%
3rd gen cephalosporins + FQ + AG	28%	21%
Pseudomonas aeruginosa	(n=12)	(n=22,045)
Ceftazidime	30%	16%
Fluoroquinolones	25%	18%
Piperacillin-tazobactam	25%	19%
Aminoglycosides	16.7%	9.5%
Carbapenems	16.7%	19%
Combined resistance*	16.7%	13%
Acinetobacter species	(n=10)	(n=8,843)
Fluoroquinolones	70%	42%
Carbapenems	70%	40%
Aminoglycosides	50%	37%
Combined resistance**	62.5%	35%
Staphylococcus aureus	(n=38)	(n=75,205)
Meticillin	31.60%	16%
Enterococcus faecium	(n=13)	(n=21,436)
Vancomycin	54%	20%
Combined resistence* Piperacillin-tazobactam + Fluoroquinolones + Ceftazidime + Aminoglycosides + Carbapenems. Combined resistence** Fluoroquinolones + Aminoglycosides + Carbapenems FQ: Fluoroquinolones ; AG: Aminoglycosides		

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#83

BRIDGING THE GAP IN HCC CARE: FIRST REAL-WORLD ANALYSIS OF BCLC ADHERENCE AND SURVIVAL IN A CENTRAL AMERICAN POPULATION

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Introduction and Objectives: Hepatocellular carcinoma (HCC) is a major global health burden. The Barcelona Clinic Liver Cancer (BCLC) staging system provides evidence-based treatment guidance, but real-world adherence remains limited, particularly in Latin America.

Assess adherence to the 2022 BCLC first-line treatment recommendations and their impact on survival in a prospective cohort from a liver transplant (LT) center.

Materials and Methods: Prospective cohort study included 260 adults diagnosed with HCC between 2018 and 2024. Adherence was defined as receipt of first-line therapy consistent with BCLC stage. Multivariate logistic regression identified predictors of adherence, and Kaplan-Meier analysis evaluated survival outcomes.

Results: Overall adherence to BCLC was 47.8%, with substantial variability by stage: 44.9% in BCLC 0/A, 53.7% in B, 23.1% in C, and 93.5% in D ($p < 0.001$). Only 26.3% of patients received potentially curative therapy. Among 53 LT-eligible patients, 45% underwent transplantation, while 30.2% progressed or died before listing. Logistic regression identified Child-Pugh class B/C (aOR: 3.82; $p < 0.001$) and ECOG > 0 (aOR: 5.04; $p = 0.022$) as independent predictors of adherence, while BCLC stages B, C, and D exhibited a strong inverse association. Adherence proved significantly prolonged median overall survival (722 vs. 535 days; $p = 0.001$), with marked benefit in stages 0/A (1,404 vs. 807 days; $p = 0.005$) and C (492 vs. 168 days; $p = 0.029$).

Conclusions: Adherence to BCLC treatment significantly improves survival, yet remains suboptimal—particularly in intermediate stages. This highlights the need for tailored strategies to improve implementation and equity in HCC care in resource-limited settings.

Conflict of interest: None

Kaplan-Meier survival curves comparing adherent and non-adherent patients stratified by BCLC stage.

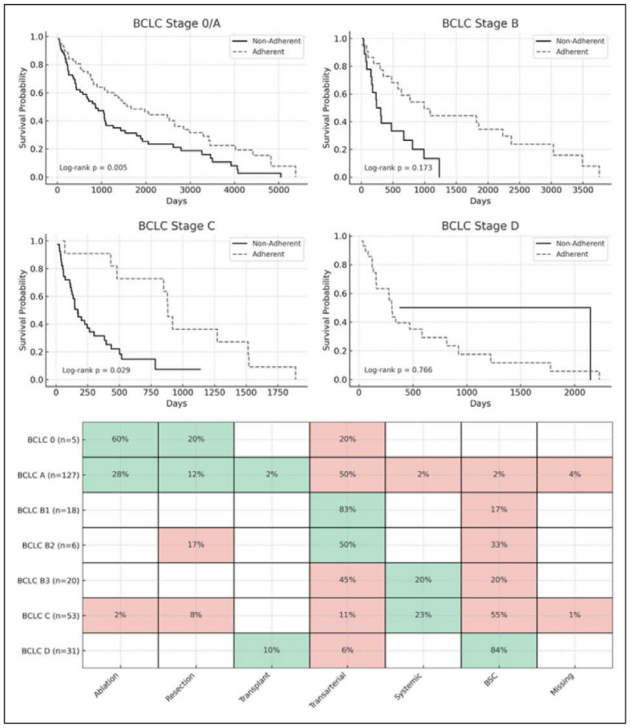

Figure 1. Kaplan-Meier survival curves comparing adherent and non-adherent patients stratified by BCLC stage. Significant survival differences were observed in stages 0/A ($p = 0.005$) and C ($p = 0.029$). Below, the distribution of first-line treatments by BCLC stage is shown. Green indicates BCLC-adherent treatments, and orange indicates non-adherent therapies. Percentages represent the proportion of patients receiving each treatment per stage. Abbreviations: BSC = Best Supportive Care; BCLC = Barcelona Clinic Liver Cancer.

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#84

ABO - INCOMPATIBLE LIVER TRANSPLANTATION FROM DECEASED DONORS: A PROMISING ALTERNATIVE FOR LATIN AMERICA IN LOW ORGAN DONATION SCENARIOS

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Introduction and Objectives: The utilization of ABO-incompatible organs in deceased donor liver transplantation (ABOi-DDLT) has increased with the implementation of desensitization protocols, yielding comparable outcomes to ABO-compatible (ABOc) LT. However, there are no reports from Latin America, a region facing low donation rates, restricted resources and limited access to living donor LT.

To evaluate the feasibility and safety of ABOi-DDLT as a therapeutic strategy in emergency settings.

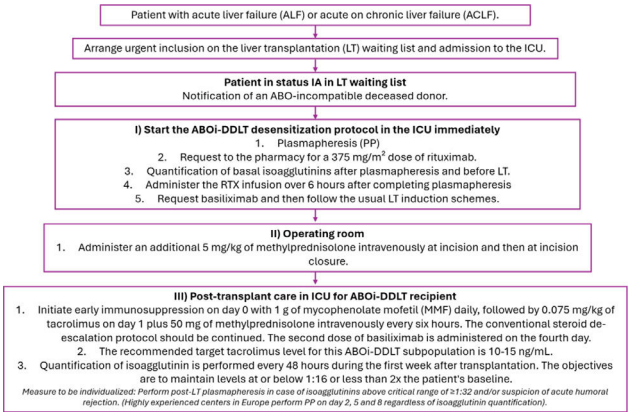
Materials and Methods: Retrospective study of DDLT recipients for acute liver failure, ≥12 years of age, between 2009-2024, in a liver transplantation center. Clinical characteristics, complications and survival outcomes were analyzed.

Results: Eight DDLT were performed (3 ABOi, 5 ABOc), 87.5% were female. Underlying etiologies were Wilson's disease(n=6) and drug-induced liver injury(n=2). The ABOi group presented higher clinical severity (MELD-Na: 37 vs. 27). ABOi-DDLT desensitization included plasmapheresis(n=3) and rituximab(n=2), plus immunosuppression with basiliximab(n=3), tacrolimus(n=3), mycophenolate(n=2) and steroids(n=3). Pre-ABOi-DDLT isoagglutinins titers were quantified in 2 cases (anti-A/B: 1:64 and 1:8), with post-transplantation peaks (anti-A/B: 1:128) managed conservatively. One ABOi-patient developed antibody-mediated rejection, effectively treated with plasmapheresis and intravenous immunoglobulin. Biliary strictures occurred earlier in ABOi-patients (4 vs. 20 months). Rates of bacterial and viral infections were similar, whereas fungal infections were observed only in ABOc-recipients. One- and three-year survival was 100% in both groups; five-year survival was 100% in ABOi and 66.6% in ABOc recipients.

Conclusions: ABOi-DDLT is a reliable and effective alternative. This study may serve as a foundation for a multicenter study led by ALEH aiming to further explore the issue across the region.

Conflict of interest: None

Proposed protocol for ABOi-DDLT applicable to Latin America.



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#85

TRANSFORMING OUTPATIENT HEPATIC CARE IN LATIN AMERICA: A SCALABLE, NURSE-DRIVEN APPROACH

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Introduction and Objectives: Chronic liver diseases are increasingly prevalent in Latin America, where fragmented care and hospital overcrowding limit timely, cost-effective management. Nurse-led outpatient programs may offer a viable alternative in resource-constrained environments.

To evaluate the safety and cost-effectiveness of a nurse-driven Outpatient Intervention Program (OIP) for patients with liver disease and its potential scalability across Latin America.

Materials and Methods: An OIP was implemented in 2019 at a tertiary care transplantation center. The program included outpatient liver biopsies (LB), albumin and blood product infusions, and diagnostic/therapeutic paracentesis. Retrospective data from 2019-2024 were analyzed.

Results: A total of 418 procedures were performed on 258 patients: 162 LB, 104 albumin or blood product infusions, and 152 paracentesis. This demonstrates a 3,240% increase in the number of LB and a 1,680% increase in paracentesis compared to 2018, before the program began.

The overall complication rate was 0.87% (4 complications), with only 2 major events (0.43%): spontaneous bacterial peritonitis after paracentesis and post-biopsy bleeding.

LB costs dropped from $2,894 to $549, generating $379,890 in savings over six years, due to avoiding overnight hospitalization. Paracentesis, albumin infusions and blood transfusions were previously performed in the emergency department, incurring an additional expense of $420. This transition to OIP generated total savings of $107,160 and contributed to reduced congestion in the emergency department.

Conclusions: This nurse-led model yields promising results in outpatient liver care and represents a cost-effective, Potential intervention. Its integration into public health systems across Latin America could contribute to more efficient management of CLD.

Conflict of interest: None

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#92

CRITICAL MEDIATORS OF INFLAMMATION-DRIVEN HEPATOCARCINOGENESIS INDUCED BY METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE

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Introduction and Objectives: Metabolic dysfunction–associated steatotic liver disease (MASLD) is increasingly recognized as a precursor to hepatocellular carcinoma (HCC). In addition, sustained inflammation is emerging as a critical promoter of the transition from steatosis to liver cancer. To evaluate the role of inflammation in hepatocarcinogenesis induction by MASLD.

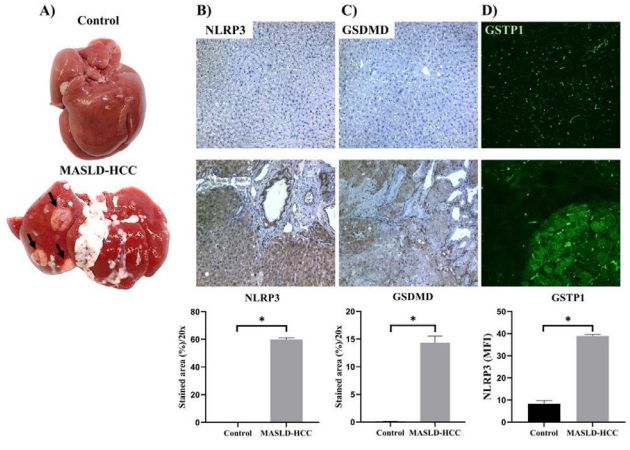
Materials and Methods: Fischer 344 rats were fed a diet rich in fat, cholesterol, and sucrose, and administered low doses of CCl_4 and DEN intraperitoneally for 16 weeks. Liver damage, steatosis, inflammatory, and carcinogenesis-related markers were assessed through biochemical assays, immunohistochemical, and western blot analysis. Data were analyzed using one-way analysis with significance set at $p < 0.05$. All the experiments were approved by the ethics committee of CINVESTAV-IPN (protocol No. 310-20).

Results: The liver of MASLD-HCC groups shows visible tumor nodules and surface alterations (Figure 1A). Immunohistochemical and immunofluorescence analysis revealed a marked increase in NLRP3, GSDMD, and GSTP1 levels in MASLD-HCC group (Figure 1B-D), indicating the activation of inflammasome and pyroptosis pathways and suggesting a link between chronic inflammation and cellular transformation. The hepatotoxins induced a strong inflammatory response, with increased hepatic expression of NLRP3 inflammasome components. These alterations were accompanied by the increase in serum liver damage and neoplastic markers, which correlated with the appearance of neoplastic lesions.

Conclusions: Chronic inflammation induced by diet and hepatotoxic compounds serves as a central driver in the HCC development-associated MASLD. This finding supports the hypothesis that the inflammation-carcinogenesis axis plays a significant role in MASLD progression.

Conflict of interest: None

Key markers involved in amplifying inflammatory responses driving hepatocarcinogenesis in the MASLD context.



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#94

EARLY IDENTIFICATION OF LIVER TRANSPLANTATION REQUIREMENT IN ALCOHOL-ASSOCIATED HEPATITIS

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Introduction and Objectives: Severe alcohol–associated hepatitis (AH) has a high risk of short-term mortality especially in those r with acute–on–chronic liver failure (ACLF). Delayed evaluation for liver transplantation (LT) in severe AH often worsens nutritional and functional status. This study aimed to identify early mortality predictors.

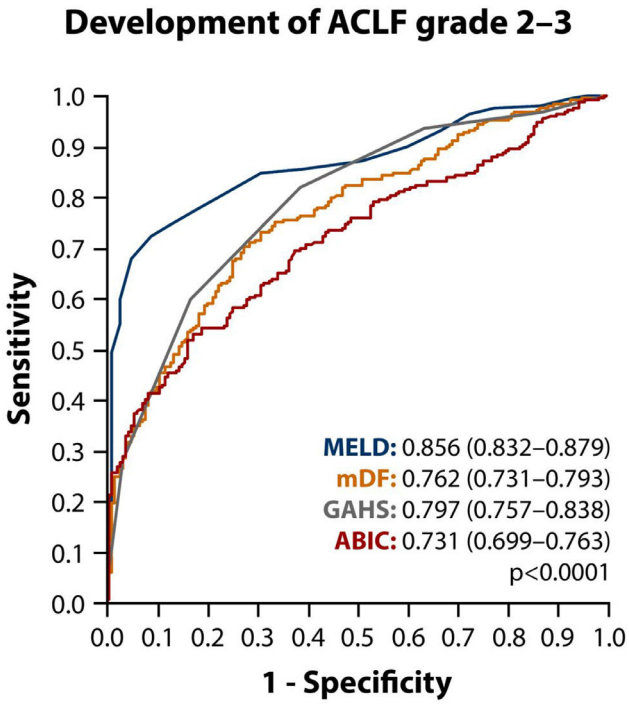
Materials and Methods: In a prospective study, 981 adults with AH were enrolled from 32 centers in 14 countries (January 2015 –September 2024). ACLF was classified by EASL-CLIF criteria. Primary outcomes were 30- and 90-day mortality. Competing-risk regression (LT as the competing event) and receiver-operating-characteristic (AUROC) analyses evaluated clinical scores predicting development of ACLF grades 2–3 within seven days of admission.

Results: The mean age was 48.3 ± 11.2 years, and 88.7% were male. Within the first week, 68.8% of patients had ACLF—30.1% with grade 1, 34.5% with grade 2, and 35.4% with grade 3. Overall survival rates were 84.7% at 30 days and 75.8% at 90 days. Adjusted analyses identified increasing age, infections, higher admission MELD score, and ACLF grades 2 (subdistribution hazard ratio [sHR] 1.59) and 3 (sHR 2.58) as independent predictors of 90-day mortality. The MELD score was the best predictor of developing ACLF grades 2–3 (AUROC 0.869), with MELD ≥28 showing 64% sensitivity and 90% specificity. These findings were confirmed in two external validation cohorts: a prospectively enrolled U.S. cohort (n=234) and a retrospective cohort from seven countries (n=602).

Conclusions: ACLF and infections are key determinants of mortality in severe AH. The MELD score at admission is a robust early predictor of high–grade ACLF, supporting its use to determine LT candidacy earlier.

Conflict of interest: None

Figure: Comparison of the performance of different models in predicting the development of acute-on-chronic liver failure (ACLF) grade 2-3 during the first week of admission using the area under the Receiver Operating Characteristic (ROC) curves. Analysis included the Model of End-stage Liver Disease (MELD), the Maddrey's discriminant function (mDF), and the Age-Bilirubin-International Normalized Ratio-Creatinine (ABIC) scores.



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#104

LONG-TERM ALBUMIN THERAPY MAY IMPROVE SURVIVAL IN CIRRHOSIS WITH ASCITES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction and Objectives: Single intravenous albumin infusions are indicated for specific events in decompensated cirrhosis. However, long-term albumin (LTA) use has been debated due to discrepant trial results. In light of recent additional evidence, we evaluated the impact of LTA on mortality in patients with cirrhosis and ascites through a meta-analysis of clinical trials.

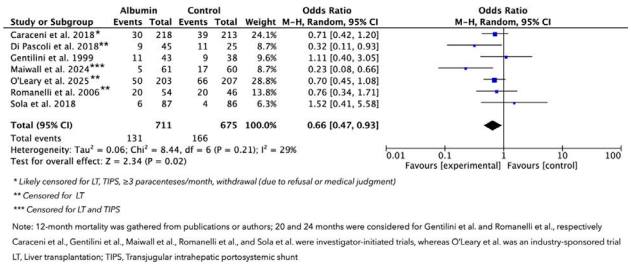
Materials and Methods: A systematic review and meta-analysis of randomized and non-randomized trials since 1995 was conducted using PubMed, with manual searches of conference abstracts in the past two years. Eligible studies enrolled adults with cirrhosis and ascites, compared ≥4 weeks of LTA to standard care or placebo, and reported ≥12-month mortality. A random-effects model was used to calculate odds ratios (ORs) and 95% confidence intervals (CIs). Heterogeneity was evaluated using χ^2 and I^2 statistics.

Results: Of 22 studies, 7 met inclusion criteria. Exclusions were due to absent albumin intervention, short treatment duration, or no control group. A total of 711 and 675 patients were included in albumin and control groups, respectively. Death occurred in 131 and 166, respectively. Twelve-month mortality was obtained from all but two trials, which reported 20 and 24-month mortality. The pooled OR for up-to-24 -month mortality was 0.66 [95% CI: 0.47−0.93], indicating a 34% mortality reduction with LTA (Figure). τ^2 and I^2 indicated low heterogeneity.

Conclusions: This meta-analysis estimates that, on average, LTA was associated with a one-third reduction in mortality in patients with cirrhosis and ascites. Future analyses of individual-level mortality predictors and other liver-related complications may help identify patients more likely to benefit from LTA.

Conflict of interest: Yes, Cristina Coll-Ortega, Elisabet Viayna, and Thomas Ardiles are employees of Grifols. Rahul Rajkumar is an employee of Boston Strategic Partners, Inc.

Forest plot of odds of mortality up to 24 months with long-term albumin use



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#117

LIVER FIBROSIS IN INDIVIDUALS WITH METABOLIC DYSFUNCTION−ASSOCIATED STEATOTIC LIVER DISEASE (MASLD) IN LATIN AMERICA: INTERIM RESULTS FROM THE STELLA STUDY

Luis Antonio Díaz Piga[1], Francisco Idalsoaga[2], Mario G. Pessoa[3], Claudia Pinto Marques Souza de Oliveira[3], Patricia Zitelli[3], Ezequiel Ridruejo[4], Mirta Peralta[5], Cesar Castro[6], Jorge Garavito-Rentería[6], Gustavo Ayares[2], Nancy Solis[2], María Paz Orellana[2], Sebastián Marciano[7], Adrian Gadano[7], Jorge Martínez Morales[7], María José Acosta[7], Martin Tagle[8], Hugo Cedron[8], Ismael Yepes Barreto[9], Dalis Pérez[9], Estefania Liza[10], Javier Díaz Ferrer[10], Daniela Simian[11], Juan Pablo Roblero[12], Pamela Gil[12], Scherezada Mejía Loza[13], Veeral Ajmera[1], Arun J. Sanyal[14], Rohit Loomba[1], Juan Pablo Arab[14], Marco Arrese[2]

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Introduction and Objectives: Prospective data on liver-fibrosis risk among Latin Americans with MASLD remain scarce, although genetic susceptibility and lifestyle behaviors may heighten vulnerability. This multinational, prospective study aims to define the principal determinants of fibrosis in this high-risk population across Latin America.

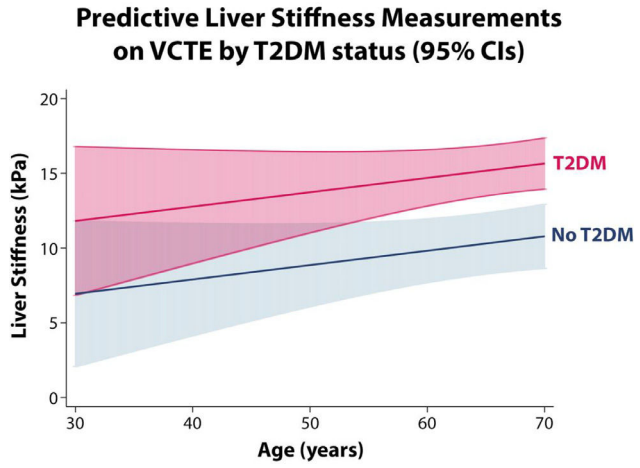
Materials and Methods: We performed a cross-sectional baseline analysis of the STELLA study, which is prospectively enrolling adults with MASLD (2023 criteria) at 10 centers (Argentina 15.1%, Brazil 66.2%, Chile 5.9%, Colombia 1.9%, Mexico 0.3%, Peru 10.6%). Alcohol intake, dietary patterns, and vibration-controlled transient elastography (VCTE) were assessed in all participants. When biopsy was unavailable, fibrosis was staged by liver stiffness measurements (LSMs) on VCTE cut-offs (advanced ≥ 8.8 kPa, cirrhosis ≥ 11.8 kPa). Factors associated with liver stiffness were examined with multivariable linear regression adjusted for age, sex, body mass index (BMI), type 2 diabetes mellitus (T2DM), hypertension, and dyslipidemia.

Results: A total of 370 participants were analyzed (median age 66 [58−73] years; 66.7% women; median BMI 30.9 [27.5−34.8] kg/m^2). The prevalence of T2DM was 55.8%, hypertension 38.3%, and dyslipidemia 39.4%. The median alcohol intake was 0 [0−28] grams/week. Median liver stiffness was 9.2 [6.1−16.6] kPa, with advanced fibrosis present in 53.2% and cirrhosis in 18.8%. In the adjusted model, female sex (β = +3.0 kPa; 95%CI 0.2−5.8; p=0.034), T2DM (β = +4.9 kPa; 95%CI 2.2−7.6; p<0.001), and dyslipidemia (β = +3.9 kPa; 95%CI 1.2 −6.5; p=0.005) were independently associated with higher LSM values, with T2DM showing the strongest effect (Figure).

Conclusions: In this well-characterized cohort of Latin-American adults with MASLD, female sex, T2DM, and dyslipidemia emerged as leading risk factors for liver fibrosis. The STELLA project, including a larger sample and longitudinal follow-up, may further clarify the natural history of MASLD in Latin America (FONDECYT 1241450).

Conflict of interest: None

Figure. Adjusted association between age and liver stiffness measurement by vibration-controlled transient elastography (VCTE), according to the presence or absence of type 2 diabetes mellitus (T2DM). Model was adjusted for sex, body mass index, hypertension, and dyslipidemia. Higher stiffness values indicate greater hepatic fibrosis.



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#119

SOCIAL AND HEALTH VULNERABILITY ANALYSIS AMONG PEOPLE WHO INJECT DRUGS IN ARMENIA, COLOMBIA

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Introduction and Objectives: People who inject drugs (PWID) face significant barriers to accessing healthcare, which increases their vulnerability to infections such as hepatitis C virus (HCV). Stigmatization, marginalization, and unsafe injection practices further elevate the risk of infection and hinder opportunities for timely diagnosis and treatment.

Objective: To characterize social and health vulnerability among PWID in Armenia, Colombia, and to determine the prevalence of HCV infection according to vulnerability levels.

Materials and Methods: A cross-sectional study was conducted using Respondent Driven Sampling (RDS) among 205 PWID between may 2024 and october 2024. Sociodemographic, drug use, and health condition data were collected through structured interviews. Rapid anti-HCV testing was performed, with confirmatory HCV RNA testing. A social vulnerability index was constructed using K-means cluster analysis to classify participants into low, medium, and high vulnerability groups.

Results: The HCV antibody testing was positive in 84% (172/205 cases).

The overall prevalence of HCV (with detectable viremia by quantitative measurement of HCV RNA) was 54.15% (111/205 cases).

High vulnerability was observed in 44.88% of participants and was significantly associated with higher HCV prevalence (29.35%; p=0.025). Key vulnerability factors included a history of incarceration (43.9%) and homelessness (40.49%). Most participants had low educational attainment (48.29% completed only primary education) and reported low monthly income levels.

Conclusions: There is a high burden of HCV infection among PWID in Armenia, particularly among those with higher social vulnerability. These findings highlight the urgent need for harm reduction strategies, systematic screening, and expanded access to antiviral treatment for highly marginalized populations.

Conflict of interest: Yes, 1. JAVIER HERNANDEZ-BLANCO: Gilead research grant, Gilead Speaker.

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#124

REVIRAL: ROADMAP FOR THE ELIMINATION OF VIRAL HEPATITIS IN LATIN AMERICA

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Introduction and Objectives: Viral hepatitis elimination remains a major challenge in Latin America due to disparities in access to diagnosis, treatment, and follow-up. The REVIRAL study aims to assess disease burden, evaluate healthcare delivery models, and propose strategies to achieve elimination targets.

Materials and Methods: REVIRAL is a multicenter, retrospective study combining database review and prospective surveys targeting healthcare professionals and patient organizations across 22 countries. Key focus areas include: hepatitis B, C, and D epidemiology in high-risk groups; identification of diagnosed but untreated individuals; evaluation of screening methods for the general population; analysis of national plan coverage; availability of diagnostic tools and treatment access; and implementation of microelimination strategies in priority settings.

Results: Findings reveal major disparities in regional responses. Thirteen countries report a national plan, but implementation varies. Health systems range from full public coverage to patient-funded models. Serology for hepatitis B and C is widely available, but molecular testing is fully accessible in only 10 countries. Universal high-risk screening exists in five nations but lacks territorial consistency. Six countries have microelimination strategies in prisons or dialysis centers, though not widespread. Treatment is free in nine countries; elsewhere, patients bear significant costs, with uneven coverage. Hepatitis B vaccination rates are optimal (≥75%) in only 10 countries. Treatment registries are scarce, limiting impact evaluation. Access delays range from 2–6 months. Despite effective therapies, only 10–20% of diagnosed patients receive treatment, indicating persistent economic, administrative, and equity barriers.

Conclusions: REVIRAL highlights the urgent need to strengthen surveillance systems, enhance inter-agency coordination, and promote equitable access to care. Key recommendations include establishing real-time monitoring, optimizing patient identification, and tailoring strategies to each country's context.

Conflict of interest: None

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#134

VALIDATION OF AGILE-3+ AND AGILE-4 SCORES FOR NONINVASIVE DETECTION OF FIBROSIS AND CIRRHOSIS IN METABOLIC DYSFUNCTION–ASSOCIATED STEATOTIC LIVER DISEASE IN LATIN AMERICA

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Introduction and Objectives: Early detection of liver fibrosis in Metabolic Dysfunction–Associated Steatotic Liver Disease (MASLD) is crucial for preventing progression to cirrhosis. The Agile-3+ and Agile-4 scores are designed to identify advanced fibrosis and cirrhosis, respectively, but their performance in Latin American populations is unknown. This study aimed to validate Agile-3+ and Agile-4 scores in predicting advanced fibrosis and cirrhosis in a well-characterized cohort of Latin American patients.

Materials and Methods: Multicenter cross-sectional study with 770 patients from 10 centers across Brazil, Argentina, Chile, and Mexico, all diagnosed with MASLD per 2023 criteria. Liver fibrosis was

assessed by vibration-controlled transient elastography (VCTE). Scores (FIB-4, Agile-3+, Agile-4) were calculated from biochemical and clinical data. Diagnostic accuracy for detecting advanced fibrosis (≥F3) and cirrhosis (F4) was evaluated using ROC curves and Youden index.

Results: Median age was 59 years; 60% were men. Median BMI was 33.3 kg/m^2; 69.6% had type 2 diabetes. Median liver stiffness was 9.1 kPa; 29.9% had advanced fibrosis, and 10.5% cirrhosis. Agile-4 outperformed VCTE stiffness in predicting advanced fibrosis (AUROC 0.765, p=0.037) and demonstrated superior accuracy for cirrhosis (AUROC 0.875, p=0.003) (Figure 1). The optimal cut-offs for Agile-4 were ≥0.159 (rule out cirrhosis with 90% sensitivity) and ≥0.366 (rule in cirrhosis with 90% specificity).

Conclusions: In this Latin American MASLD cohort, Agile-4 score demonstrated superior noninvasive rule-out performance for advanced fibrosis and cirrhosis. Incorporating these thresholds into VCTE algorithms could reduce unnecessary biopsies and improve streamline MASLD care pathways.

Conflict of interest: Yes, receives support from the Chilean government through the Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT 1241450).

Figure 1. Area Under the Curve Performance of VCTE with AGILE 3, and AGILE 4 for predicting Advanced fibrosis and Cirrhosis

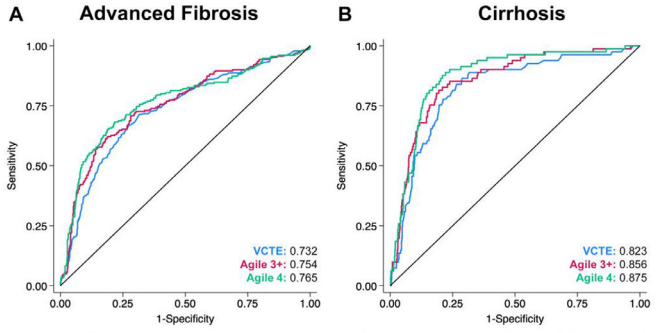

Figure. Receiver-operating characteristic curves comparing the performance of vibration-controlled transient elastography (VCTE) liver stiffness measurements with Agile-3+ and Agile-4 scores in predicting (A) advanced fibrosis and (B) cirrhosis.

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#139

EXPLORING THE ROLE OF METABOLIC DYSFUNCTION IN ALCOHOL-ASSOCIATED HEPATITIS: A GLOBAL STUDY

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Introduction and Objectives: Severe alcohol-associated hepatitis (AH) carries high mortality. Although the role of cardiometabolic risk factors (CMRF)—including obesity, type 2 diabetes mellitus (T2DM), hypertension (HTN), and dyslipidemia (DLP)—has been characterized in steatotic liver disease, their role in the severity of AH remains unclear.

To evaluate the impact of CMRF on mortality and infection risk in AH.

Materials and Methods: Multinational prospective cohort study (2015−2024) including hospitalized patients with severe AH across 24 centers in 14 countries (Global AlcHep Network). Diagnosis of AH was done using NIAAA criteria. Analyses included competing-risk models, with liver transplantation as a competing risk. Models were adjusted by age, sex, ethnicity, history of cirrhosis, CMRF, corticosteroids use, MELD, and ACLF grade.

Results: 935 participants were included. Median BMI was 24.2kg/m2, prevalence of T2DM was 21%, HTN 17%, DLP 7%. In adjusted competing-risk models, age (sHR 1.02, 95%CI: 1.01-1.04; p<0.001), MELD (sHR 1.04, 95%CI: 1.01−1.06; p<0.001), infections (sHR 1.76, 95%CI: 1.28−2.41; p<0.001), and ACLF grade 2 (sHR 1.67, 95%CI: 1.05−2.69; p<0.032) and 3 (sHR 3.06, 95%CI: 1.88−4.99; p<0.001) were associated with higher risk of mortality, while obesity (sHR 0.67, 95%CI: 0.48−0.93; p=0.016) and corticosteroids use (sHR 0.67, 95%CI: 0.49 −0.92; p=0.014) were associated with lower mortality. T2DM, HTN and DLP weren't associated with higher mortality.

Conclusions: Metabolic dysfunction was not associated with increased mortality in AH. Although obesity may be a protective factor, these findings could be explained by a better nutritional status than the lean population.

Conflict of interest: None

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#143

CHARACTERIZATION OF THE UNRECORDED ALCOHOL USE WORLDWIDE: A SYSTEMATIC REVIEW AND SURVEY-BASED STUDY

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Introduction and Objectives: Unrecorded alcohol - products that escape taxation, regulation, and safety checks - represents up to one quarter of world alcohol intake and is strongly linked to hazardous drinking and alcohol-related liver disease. Knowledge gaps regarding unrecorded alcohol worldwide need to be addressed to better inform region-specific harm reduction strategies.

To characterize the population, contemporary consumption patterns, and physicians' interest in unrecorded alcohol worldwide.

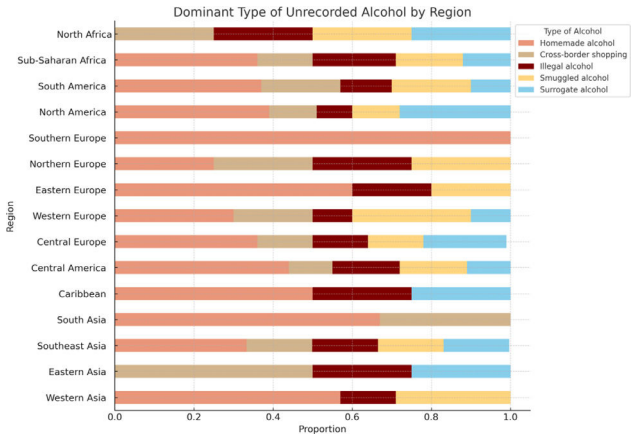
Materials and Methods: Cross-sectional survey-based study. Data was collected between August and November 2024, distributing a 19 item electronic questionnaire to hepatology-focused physicians worldwide. Responses were categorized into 15 geographic regions and were analyzed by descriptive statistics.

Results: We collected 116 survey responses from 44 countries. Homemade alcohol was the predominant form of unrecorded alcohol consumed, representing the largest share in most regions. Consumers were predominantly male and of working age. Rural consumption of homemade alcohol exceeded that of urban areas, whereas smuggled and cross-border alcohol were mainly consumed in urban areas. Among at-risk groups unrecorded alcohol consumption was highest in drug users and lowest in pregnant women and prisioners. Binge drinking was the most pattern for homemade, illegal, and smuggled alcohol; heavy drinking predominated for surrogate alcohol; and moderate drinking was most common for cross-border purchases. Sub-Saharan Africa had the highest prevalence of heavy drinking across all unrecorded alcohol categories, whereas North America had the highest prevalence of heavy drinking in the surrogate alcohol category. Only 21% of physicians reported "always" asking patients about unrecorded alcohol use, whereas 4.6% reported "never" doing so. A combined 52% indicated they "usually" or "Rarely" ask about unrecorded alcohol use.

Conclusions: Unrecorded alcohol use is widespread, driven by homemade sources, with higher prevalence in rural areas and among people who consume drugs, while physician screening remains limited.

Conflict of interest: None

Dominat type of unrecorded alcohol by region



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#162

IDENTIFICATION OF NOVEL INTESTINAL MICROBIOTA-BASED MARKERS ASSOCIATED WITH DYSBIOSIS, SEPSIS AND SHORT-TERM MORTALITY IN ALCOHOL-RELATED DECOMPENSATED CIRRHOSIS AND ACUTE-ON-CHRONIC LIVER FAILURE

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Introduction and Objectives: Decompensated cirrhosis (DC) and acute-on-chronic liver failure (ACLF) related to alcohol present high morbidity and mortality and complications such as sepsis and multi-organ failure. The intestinal microbiota (IM) suffers from marked dysbiosis, altering SCFA biosynthesis and affecting the gut-liver axis. The microbial pathways involved, poorly understood in these pathologies, could represent useful prognostic markers.

To evaluate the relative quantification of bacterial SCFA genes in the IM of patients with CD and ACLF, and their association with different clinical outcomes and alpha-diversity.

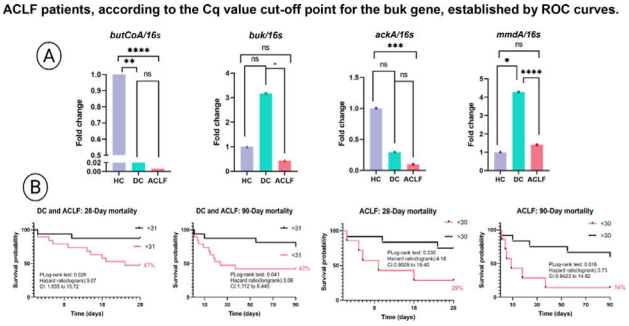
Materials and Methods: Retrospective analytical study. Fecal samples from 19 ACLF patients, 16 DC, and 16 healthy controls (HC) were included. The butCoA, buk, ackA, and mmdA genes were quantified by qPCR. ROC curves and Kaplan-Meier analyses were performed using GraphPad. Approval number: CI-01023. No conflicts of interest are reported.

Results: Relative abundances of butCoA and ackA genes were significantly decreased in DC and ACLF patients ($p<0.05$), whereas mmdA increased in DC. buk increased in patients who died at 28 days ($p<0.01$) and showed a negative correlation with alpha-diversity, being associated with dysbiosis. Furthermore, buk and butCoA discriminated 28-day mortality in DC and ACLF (AUROC 0.75 and 0.85, respectively). In Kaplan-Meier analyses, increased buk was associated with 28-day mortality of 53% in DC and 71% in ACLF.

Conclusions: Intestinal microbiota of DC/ACLF showed reduction of butCoA, ackA, and mmdA, correlating with functional loss. Increased buk was associated with 28-day mortality, loss of alpha-diversity and sepsis. These findings propose novel microbial biomarkers in the Mexican population which will have to be validated later.

Conflict of interest: None

(A) Relative quantification of bacterial genes encoding SCFA biosynthesis-related genes in feces of the three study groups and (B) Kaplan-Meier mortality analysis on 28- and 90-day mortality in DC and ACLF patients, according to the Cq value cut-off point for the buk gene, established by ROC curves.



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#164

EFFECTS OF MELATONIN AND PHYSICAL EXERCISE ON SECONDARY BILIARY CIRRHOSIS

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Introduction and Objectives: Cirrhosis is characterized by the formation of septa and fibrotic nodules in the liver parenchyma, and it is a relevant public health problem. Bile duct ligation (BDL) is an effective experimental model for inducing secondary biliary cirrhosis.

Melatonin (MLT) has antioxidant, antifibrotic, and cytoprotective properties. Physical exercise (EX) has shown beneficial effects in different diseases.

To investigate the effects of MLT and EX on BDL-induced biliary cirrhosis in rats.

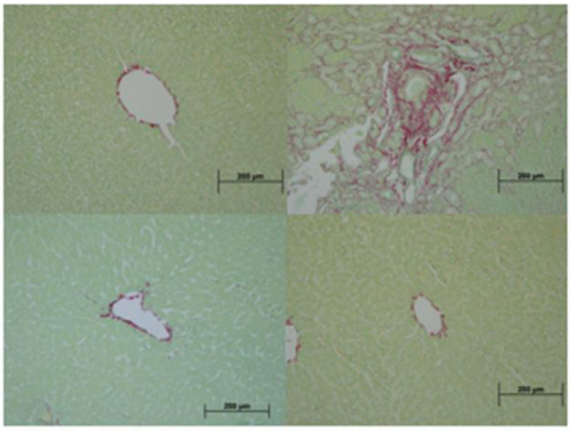
Materials and Methods: The study, was approved by CEUA/HCPA (2021-0642). We used 26 male Wistar rats (60 days, ±350g), distributed into four groups: CO, BDL, BDL+MLT, and BDL+EX. BDL was performed on day 1 in the experimental groups. From the 15th day onwards, MLT (20 mg/kg/day) was administered and the swimming protocol was started. On the 29th day, blood (for analysis of AST, ALT and FA) and liver were collected. Data were analyzed by One-Way ANOVA with Student-Newman-Keuls post-test (mean±SE; $p<0.05$).

Results: AST, ALT and FA were increased significantly in the LDB group vs. CO ($p<0.05$), with reduction in the LDB+MLT and LDB+EX groups ($p<0.05$). The Picrosirius staining indicated intense fibrosis in the LDB group, this effect was attenuated by treatments. GPx activity was reduced in the LDB group ($p<0.01$), but increased with MLT and EX. CAT increased in the LDB group and decreased with treatments ($p<0.05$). Nitric oxide levels increased in the LDB group and decreased with MLT.

Conclusions: MLT and EX promoted protective effects in the liver of rats with biliary cirrhosis, attenuating biochemical, oxidative and fibrotic changes.

Conflict of interest: None

Histological analysis of the liver (Picrosirius)



Picrossirius staining. Magnification 200X. CO: control, BDL: bile duct ligation group, BDL+MLT: BDL plus melatonin group and BDL+EX: BDL plus exercise group. BDL group presented portal fibrosis widening and ductular reaction. BDL+MLT and BDL+EX groups presented significant decrease in fibrosis.

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#168

ARTIFICIAL INTELLIGENCE FOR SURVIVAL PREDICTION IN HEPATOCELLULAR CARCINOMA: DEVELOPMENT AND VALIDATION OF A CLINICAL DATA–DRIVEN MODEL IN A COHORT OF 129 PATIENTS

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Introduction and Objectives: To develop and validate a predictive survival model for patients with hepatocellular carcinoma (HCC) associated with metabolic dysfunction–associated steatotic liver disease (MASLD), using artificial intelligence applied to widely available clinical and laboratory data. Additionally, to compare the model's performance with traditional prognostic scores commonly used in HCC risk stratification.

Materials and Methods: This retrospective study included 129 patients with confirmed HCC and underlying MASLD. Clinical, laboratory, and tumor-related variables were analyzed, including metabolic comorbidities, liver function markers, tumor burden, cirrhosis-related complications, and established prognostic scores (Child-Pugh, FIB-4, and ALBI). The predictive model was built using Cox proportional hazards regression with L2 regularization to manage high-dimensional data and minimize overfitting. The XGBoost (Extreme Gradient Boosting) algorithm was implemented, with random allocation of the dataset into a training cohort (80%) and an internal validation cohort (20%). DeepSurv, a deep learning–based survival model, was also explored as a complementary strategy.

Results: The regularized Cox model demonstrated robust predictive performance, achieving a concordance index (C-index) of 0.774 in the validation cohort. The variables most strongly associated with reduced survival included tumor thrombosis (HR 8.27), hepatic encephalopathy (HR 4.66), and spontaneous bacterial peritonitis (HR 6.51), all statistically significant. The proposed model outperformed widely used prognostic scores such as BCLC, CLIP, and ALBI, showing superior discriminative ability for survival prediction in patients with HCC-MASLD.

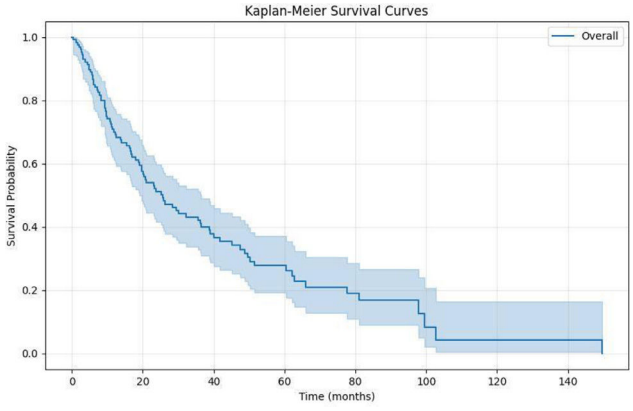
Conclusions: The AI-based model, built using easily accessible clinical and laboratory data, demonstrated superior performance in predicting survival in patients with HCC-MASLD. This approach enables more precise and scalable risk stratification, with direct applicability in real-world clinical practice.

Conflict of interest: None

Comparative Predictive Performance: Our Model Versus Traditional Prognostic Scores (C-index)

Model	Approach	C-index
Our Model	AI + Cox regression with L2 regularization	0.774
BCLC	Clinical staging	~0.60–0.68
CLIP	Clinical score	~0.62–0.70
ALBI	Objective liver function score	~0.65–0.70
HCC Risk	Continuous clinical variables	~0.72–0.74

Survival Curves in MASLD-Related HCC Based on AI-Identified Prognostic Variables



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#181

AUTOIMMUNE HEPATITIS IN LATIN AMERICA: INSIGHTS FROM THE ALLATIN COHORT

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Introduction and Objectives: Autoimmune hepatitis (AIH) is a chronic inflammatory liver disease associated with significant morbidity. Non-white ethnicity has been described as an independent predictor of adverse outcomes. Previous studies suggest a more severe disease phenotype in Latin America. We aim to describe the presentation, treatment, and outcomes of AIH in Latin America.

Materials and Methods: Retrospective, ongoing, multicenter cohort study (ALLATIN) including 515 patients with autoimmune hepatitis from Brazil (246), Argentina (108), Chile (71), Ecuador (28), Cuba (22), Mexico (21), Costa Rica (10), and Peru (1).

Results: Most patients were female (82.5%), with type 1 AIH (90.9%) and a mean age at diagnosis of 42.8±19.2 years. At disease presentation, the most reported symptom was jaundice (42.3%), followed by asthenia (25.3%), abdominal pain (19.8%), arthralgia (10.0%) and pruritus (9.8%). Clinical signs of portal hypertension were seen in 16.1% at diagnosis. Acute presentation occurred in 39.3%, predominantly as acute icteric hepatitis(72.2%), while 42% were asymptomatic. At the first biopsy, 42.9% of patients had advanced fibrosis (F3–F4), 35.0% were cirrhotic on ultrasound, and 26.6% had clinically significant portal hypertension. The preferred first line therapy was prednisone (96.5%) and azathioprine (91.9%). Biochemical remission was achieved in 68.4% (data from 336 patients) at 6 months and 55.7% at 12 months and 55.7% (data from 329 patients) at 12 months. Among patients who achieved a biochemical response within the first year, most responded within the first 6 months. Reported second-line therapies were mycophenolate mofetil (63.6%), tacrolimus (13.6%), cyclosporine (13.6%), chloroquine (6.8%), and rituximab (2.3%). In a mean follow up of 6.72±6.0 years, 3.9% underwent liver transplantation and 3.1% died.

Conclusions: Despite a high burden of advanced liver disease at presentation, the ALLATIN cohort shows comparable treatment response rates to European populations. These findings highlight the importance of ethnicity, healthcare access, and early diagnosis in shaping AIH outcomes.

Conflict of interest: None

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#3

PROTECTIVE ROLE OF MTARC1 RS2642438 POLYMORPHISM AGAINST FIBROSIS PROGRESSION IN METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE (MASLD)

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is a leading cause of chronic liver disease worldwide, with fibrosis progression being a key determinant of clinical outcomes. Genetic polymorphisms, such as MTARC1 (rs2642438)**,** have been implicated in modifying fibrosis risk. This study aimed to evaluate the protective role of **the** MTARC1 AA genotype in protecting against significant fibrosisin Brazilian patients with MASLD.

Patients and Methods: A total of 212 biopsy-proven MASLD patients were included, classified into, Group 1 (F0-F1, n=110): No significant fibrosis. Group 2 (F2-F4, n=102): Significant fibrosis. Additionally, 90 healthy individuals served as controls. Genotyping for MTARC1 (rs2642438) was performed using real-time PCR. Logistic regression models were used to assess the association between MTARC1 genotypes and significant fibrosis, adjusting for metabolic and clinical factors.

Results: The protective AA genotype was significantly more frequent in the control group (52%) than in MASLD patients (5%, $p = 2.76 \times 10^{-20}$)**.**

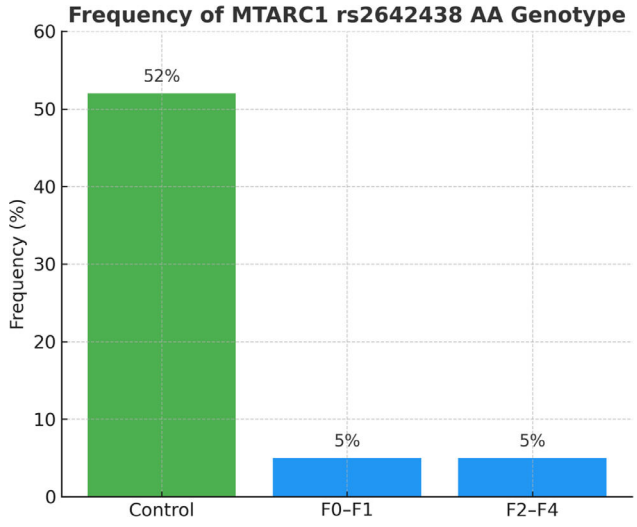
Patients carrying the AA genotype had an 81% lower risk of developing significant fibrosis (OR = 0.19; 95% CI: 0.08 - 0.45; $p < 0.001$).

No significant associations were observed for the GG and GA genotypes regarding fibrosis progression.

Conclusions: The MTARC1 rs2642438 AA genotype confers strong protection against fibrosis in MASLD patients, suggesting a potential role in risk stratification and personalized management**.** Future studies with larger cohorts are needed to confirm these findings and elucidate the molecular pathways involved.

Conflict of interest: None

Frequency



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#6

INFLUENCE OF GLYCEMIC CONTROL ON THE SEVERITY OF HEPATIC STEATOLOGY IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Introduction and Objectives: Type 2 diabetes mellitus (T2DM) has a prevalence of 18.3% in Mexico and is associated with metabolic dysfunction-associated steatotic liver disease (MASLD), which has a prevalence of 30%.Considering glycosylated hemoglobin (HbA1c) a relevant biomarker in the evaluation of glycemic control.

The objective of the study was to analyze the association between HbA1c levels and the degree of hepatic steatosis in patients with type 2 diabetes mellitus (DM2).

Materials and Methods: Observational, descriptive, and retrospective study in 90 patients over 18 years old with DM2 attended in the outpatient gastroenterology clinic at a tertiary care center, between February 2024 and February 2025.All patients underwent hepatic elastography using FibroScan® and HbA1c determination. Using non-parametric statistics (Kolmogorov-Smirnov, Kruskal-Wallis, and Mann-Whitney U with Bonferroni correction).

Results: The patients were compared according to the degree of hepatic steatosis and the levels of (HbA1c), and a statistically significant difference was observed (Kruskal-Wallis, H=9.75, p = 0.008), indicating differences in glycemic control in 2 groups. The average HbA1c ranges were: grade I hepatic steatosis 39.42%; grade II, 64.00%; and grade III 51.96%.suggesting a progressive increase in HbA1c as the severity of hepatic steatosis increases. The post hoc analysis using the Mann-Whitney U test, with Bonferroni correction, revealed significant differences between patients without steatosis and those with grade II steatosis (p = <0.005).

Conclusions: Patients with type 2 diabetes who have moderate or severe hepatic steatosis show worse glycemic control compared to patients without steatosis or with mild steatosis.

Conflict of interest: None

Table No. 1 The following table represents the relationship between the degree of steatosis and the levels of glycated hemoglobin, a statistically significant difference is observed (Kruskal-Wallis, H = 9.75, p = 0.008), indicating differences in 2 groups in glycemic control. The average ranges of HbA1c were: grade I hepatic steatosis 39.42%; grade II, 64.00% and grade III 51.96% suggesting a progressive increase in HbA1c as the severity of hepatic steatosis increases. The Mann-Whitney U test, with Bonferroni correction, revealed significant differences between patients without steatosis and those with grade II steatosis (p = <0.005

Grade hepatic steatosis	N	Average HbA1c Range
Without Hepatic Steatosis	40	36.98
Grade I hepatic steatosis	12	39.42
Grade II hepatic steatosis	14	64.96
Grade III hepatic steatosis N	24	51.96
P VALUE <0.005	U de Man Whitney P=0.005	CHI SQUARED <0.005
H. de Kruskal Wallis 9.75 P=0.008	95% Confidence Interval	

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#8

BIOACTIVE COFFEE COMPOUNDS SYNERGISTICALLY ENHANCE THE ANTITUMOR EFFECTS OF CHEMO AND IMMUNOTHERAPY FOR HEPATOCELLULAR CARCINOMA IN VITRO

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Introduction and Objectives: Hepatocellular Carcinoma (HCC) yields high global incidence and mortality rates and an unfavorable prognosis. Although current therapies for advanced HCC are promising, their outcomes remain limited. In this context, there is increasing interest in innovative strategies, such as combining bioactive compounds (BCs) with chemo- and immunotherapies. BCs in coffee have stood out due to their chemopreventive effects reported in epidemiological and experimental studies. However, their antitumor potential, particularly in combination with conventional therapies, remains incompletely understood. In this study, we investigated whether coffee-derived compounds could enhance the antitumor effects of sorafenib (SOR) and atezolizumab plus bevacizumab (ATZ+BVZ) in vitro.

Materials and Methods: LX2 hepatic stellate cells and HepG2/C3A (HCC) cells were cultured in 3D (spheroids) and 2D (transwell)

systems, and treated with caffeine (CAF), trigonelline (TRI), chlorogenic acid (CGA), caffeic acid (CA), kahweol (KWL), SOR, ATZ, and BVZ for 24 and 48 h for half maximum effective concentration (EC50) determination (MTT/LDH assays). Next, the coffee compounds were combined with SOR or ATZ+BVZ at sub-effective and physiologically plausible EC50 fractions (1/5, 1/6, or 1/10) and evaluated by MTT (3D), scratch (migration), and colony formation assays (2D), with combination index calculation.

Results: CGA, CA, and TRI showed antagonistic effects to the therapies. In contrast, CAF or KWL synergistically enhanced the antitumor effects of SOR and ATZ plus BVZ in reducing spheroid viability. The combination of CAF plus KWL further intensified the anti-tumor effects of both treatments, also inhibiting colony formation and cell motility.

Conclusions: These findings suggest that coffee-derived compounds may strengthen the therapeutic efficacy against HCC. Further experiments include in vitro metabolomics and transcriptomics, and in vivo xenograft mouse model.

Conflict of interest: None

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#10

INFLUENCE OF CARDIOMETABOLIC RISK FACTORS AND ALCOHOL CONSUMPTION ON LIVER STIFFNESS IN PATIENTS WITH MASLD: A MULTICENTER STUDY IN COLOMBIA

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[6] *Gastropacksas, Colombia.*

Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) includes patients with hepatic steatosis and at least one cardiometabolic risk factor (CMRF). However, the influence of individual CMRFs and their interactions on disease progression remains unclear.

To assess the association between CMRFs, their interactions (including with alcohol consumption), and liver stiffness in MASLD

Patients and Methods: This multicenter study included patients with MASLD from four Colombian cities. Transient elastography was used to assess liver stiffness. Other causes of chronic liver disease were excluded. Patients with significant alcohol intake (≥30 g/day for men, ≥20 g/day for women) were excluded. CMRFs were defined using ATP III criteria. Alcohol consumption was estimated as grams per week based on standard drink units. A multivariate linear regression model evaluated associations with liver stiffness, including interaction terms between CMRFs and with alcohol. Statistical significance was set at $p \leq 0.05$

Results: A total of 354 patients were included (mean age: 54 years; 39.3% male). CMRF distribution: 1 (30.2%), 2 (31.9%), 3 (29.4%), and 4 (8.5%). The most prevalent CMRFs were dyslipidemia (68.6%) and hypertension (54.2%). In multivariate analysis, BMI ($\beta = 0.14$; 95% CI: 0.03–0.27; $p = 0.012$) and impaired glucose metabolism ($\beta = 0.11$; 95% CI: 0.08–2.6; $p = 0.03$) were independently associated with liver stiffness. Among interaction terms, only the diabetes–waist circumference interaction remained significant ($\beta = 0.19$; 95% CI: 1.15–4.4; $p < 0.01$). Alcohol consumption showed no association.

Conclusions: Diabetes and its interaction with waist circumference are key drivers of liver stiffness in MASLD, independent of alcohol intake.

Conflict of interest: None

Variable	b	IC 95%	p
Male sex	-0,031	(-1,6) - 0,93	0,57
Age (years)	0,118	0,004 - 0,98	0,03
BMI (Kgs/m2)	0,13	0,026 - 0,26	0,018
Weekly alcohol consumption (gr)	-0,033	(-0,023) - 0,012	0,55
CAP (dB/m)	-0,07	(-0,019) - 0,004	0,22
Obesity or overweigth	0,037	(-1,42) - 2,8	0,51
Number of cardiometabolic risk factors	0,128	0,12 - 1,4	0,021
Abdominal circumference	0,08	(-0,25) - 2,2	0,11
Dyslipidemia	-0,09	(-2,5) - 0,14	0,07
Hypertension arterial	0,08	(-0,24) - 2,2	0,11
Disorder of glucose metabolism	0,16	0,62 - 3,11	0,003

Table 1. Factors associated with elastographic values. Univariate linear regression.

Interaction term	b	IC 95%	p
Disorder of glucose metabolism * Dyslipidemia	0,014	(-1,13) - 1,4	0,8
Disorder of glucose metabolism*Abdominal circumference	0,22	1,6 - 4,7	< 0,001
Disorder of glucose metabolism * Hypertension	0,16	0,61 - 3,2	0,004
Dyslipidemia * Abdominal circumference	0,018	(-1,2) - 1,7	0,74
Dyslipidemia * Hypertension	-0,038	(-1,7) - 0,84	0,49
Abdominal circumference * Hypertension	0,14	0,44 - 3,5	0,012
Disorder of glucose metabolism * Abdominal circumference * Hypertension	0,22	2,1 - 5,8	< 0,001
Disorder of glucose metabolism * Abdominal circumference * Dyslipidemia	0,06	(-0,8) - 2,8	0,26
Disorder of glucose metabolism * Hypertension* Dyslipidemia	0,017	(-1,2) - 1,6	0,76
Dyslipidemia * Abdominal circumference* Hypertension	0,02	(-1,4) - 2,2	0,66

Table 2. Relationship between the interaction terms of cardiovascular risk factors and liver stiffness. Univariate linear regression.

Variable	b	p
Disorder of glucose metabolism*Abdominal circunference	0,19	< 0,01
BMI (Kgs/m2)	0,14	0,012
Disorder of glucose metabolism	0,11	0,03

Table 3. Factors associated with liver stiffness. Multivariate linear regression analysis

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#11

HEALTH LITERACY AS A DETERMINANT OF FRAILTY IN PATIENTS WITH LIVER CIRRHOSIS

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Introduction and Objectives: Health literacy (HL) is a key social determinant of health, especially in chronic conditions like cirrhosis, where disease management depends heavily on patient comprehension and engagement. HL refers to the ability to access, understand, and use health information to make informed decisions. Frailty, a state of decreased physiological reserve and increased vulnerability, is a strong predictor of adverse outcomes in cirrhosis. Although the Liver Frailty Index (LFI) is commonly used to assess physical frailty, the role of HL in this context remains poorly explored. This study aimed to determine the association between HL and frailty in patients with cirrhosis.

Patients and Methods: We conducted a cross-sectional study among adults with confirmed cirrhosis attending outpatient hepatology clinics in Cartagena, Colombia, between September and December 2024. HL was measured using the Short Assessment of Health Literacy for Spanish Adults (SAHL-S), and frailty was assessed with the LFI, which includes grip strength, chair stands, and balance tests. Trained clinicians performed all tests using calibrated equipment. Demographic and clinical variables were obtained from records and structured interviews. Patients with encephalopathy or severe mobility limitations were excluded. Frailty was defined as LFI ≥ 4.5.

Results: Among 89 participants (57.3% women, mean age 64.8), 85.4% were Child-Pugh A. History of decompensation and variceal

bleeding were present in 24.7% and 13.5%, respectively. LFI categorized 15.7% as robust, 65.2% as prefrail, and 19.1% as frail. In multivariable analysis, low HL (OR 2.8; 95% CI 1.3–6.0) and variceal bleeding (OR 3.2; 95% CI 1.4–7.1) independently predicted frailty.

Conclusions: Low HL independently predicts frailty and should be addressed to improve outcomes in cirrhosis care.

Conflict of interest: None

Variable	Value (n)
Female sex	57.3% (51)
Arterial hypertension	49.4% (44)
Child Classification	
Child B	14.6% (13)
History of ascites	12.4% (11)
BMI	27.1 (5.6)
Albumin	3.9 (0.56)
Frailty	19.1% (17)
Prefrail	65.2% (58)

Table 1. Baseline Characteristics

Variable	OR	95% CI	p-value
Age	1,07	1.01 – 1.14	0,017
History of decompensation	3,6	1.2 – 11.2	0,02
History of variceal bleeding	3,87	1.05 – 14.2	0,04
SAHL-S	0,84	0.73 – 0.95	0,009

Table 2. Univariate logistic regression analysis.

Variable	OR	95% CI	p-value
History of variceal bleeding	5,2	1.18 – 23.0	0,02
SAHL-S	0,86	0.76 – 0.98	0,03

Tabla 3. Multivariate logistic regression analysis

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#12

PREVALENCE OF LIVER FIBROSIS IN RELATIVES OF PATIENTS WITH MASLD-RELATED CIRRHOSIS: A STUDY ON DEGREE OF KINSHIP

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Introduction and Objectives: First-degree relatives of patients with MASLD-related cirrhosis are considered at high risk for liver fibrosis, based on evidence from Europe and the U.S. supporting a strong hereditary component, including genetic polymorphisms linked to fibrosis progression. However, it is unclear whether this risk extends beyond first-degree relatives, especially in Latin American populations.

This study aimed to assess the prevalence of liver fibrosis and associated factors among first-, second-, and third-degree relatives of patients with MASLD-related cirrhosis in Cartagena, Colombia.

Patients and Methods: Patients with MASLD-related cirrhosis were identified from a hepatology clinic, and their relatives were invited for transient elastography (FibroScan) and body composition analysis (InBody 270) after fasting. Only elastography results with an IQR ≤30% and success rate ≥60% were analyzed. All participants underwent physical exams and interviews covering medical history and alcohol use. Those with abnormal elastography (≥7.2 kPa) were referred for hepatology evaluation.

Results: Of 99 relatives included (56 first-degree, 13 second-degree, 30 third-degree), the mean age was 44 years; 32.3% were male. The prevalence of fibrosis was 15.2% overall, with 21.4% in first-degree, 7.7% in second-degree, and 6.7% in third-degree relatives ($p > 0.05$). Advanced fibrosis (≥10 kPa) was found in five individuals. BMI, visceral fat, total body fat, and waist circumference were associated with fibrosis.

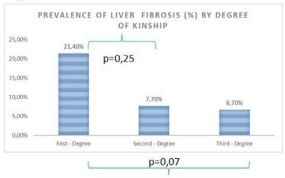
Conclusions: These findings support targeted screening in first-degree relatives and suggest that body composition metrics may help identify at-risk individuals. Further research is needed to clarify familial risk beyond first-degree relatives in Latin American settings.

Conflict of interest: None

Variable	OR	95% CI	p-value
Male sex	1,05	0.32 – 3.3	0,92
Age	1,02	0.98 – 1.06	0,32
BMI	1,14	1.02 – 1.28	0,019
Second-degree kinship	0,48	0.22 – 1.06	0,07
Third-degree kinship	0,26	0.05 – 1.25	0,09
Arterial hypertension	3	0.87 – 10.3	0,08
Diabetes mellitus	1,9	0.18 – 19.8	0,58
Dyslipidemia	1,65	0.40 – 6.8	0,48
Weekly alcohol intake (g)	0,99	0.98 – 1.00	0,64
Abdominal circumference (cm)	1,08	1.02 – 1.14	0,003
CAP (dB/m)	1	0.99 – 1.01	0,54
Visceral fat (%)	1,13	1.02 – 1.26	0,018
Muscle mass (kg)	1,02	0.94 – 1.10	0,59
Body fat percentage (%)	1,07	1.009 – 1.10	0,023

Table 1. Factors Associated with Liver Fibrosis in Relatives of Patients with MASLD-Related Cirrhosis. Univariate Logistic Regression Analysis

Figure 1.



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#13

RELATIONSHIP BETWEEN QUALITY OF LIFE AND AN EDUCATIONAL STRATEGY BASED ON THE INFORMATION NEEDS OF PATIENTS WITH COMPENSATED LIVER CIRRHOSIS

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Introduction and Objectives: Educational strategies may improve quality of life (QoL) in patients with cirrhosis, yet available evidence remains limited and often not generalizable to Latin American settings. Sociocultural and demographic differences can influence both information needs and determinants of health-related quality of life (HRQoL).

This study aimed to evaluate the effect of a locally tailored educational intervention on QoL in patients with compensated cirrhosis and caregiver burden.

Patients and Methods: In this prospective, longitudinal study, adult outpatients with cirrhosis were enrolled. Patients completed the Chronic Liver Disease Questionnaire (CLDQ), and both patients and caregivers completed PROMs (Patient-Reported Outcome Measures). Caregiver burden was assessed using the Zarit Burden Interview, both before and after the intervention. Descriptive statistics were used for demographic and clinical variables. Paired t-tests assessed changes in CLDQ scores, and univariate linear regression identified predictors of QoL improvement. A p-value <0.05 was considered significant.

Results: Thirty-nine patients were included (64% female; 86% Child-Pugh A). The most frequent etiologies were MASLD (33%) and autoimmune hepatitis (23%). Most belonged to socioeconomic level 2 (41%). Thirty-three caregivers were also included (78.1% female; mean age 50.1±13.7 years). Educational session attendance was 64% for patients and 72% for caregivers.

CLDQ scores increased by 29 points (95% CI: 24–34; $p<0.001$), a 21.8% relative improvement, especially in emotional and worry domains. Zarit scores decreased from 21.2 to 11.5 points, indicating a 46% reduction in caregiver burden.

Conclusions: A targeted educational intervention improved QoL and reduced caregiver burden. Educational support should be integrated into comprehensive cirrhosis care in Latin America.

Conflict of interest: None

Table 1. Impact of the Educational Strategy on Patient Quality of Life and Caregiver Burden

Measure	Before	After	95% CI	p-value
Overall CLDQ score	133,1	162,1	24 – 34	<0.001
Overall Zarit caregiver burden score	21,2	11,5	12 – 7.5	<0.001

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#15

THE RELATIONSHIP BETWEEN QUALITY OF LIFE IN ADULT SUBJECTS WITH COMPENSATED LIVER CIRRHOSIS AND BACTERIAL OVERGROWTH

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Introduction and Objectives: Small intestinal bacterial overgrowth (SIBO) has been associated with greater severity of cirrhosis, as measured by the Child-Pugh classification, and with an increased incidence of complications. However, its impact on quality of life and on the progression of compensated liver cirrhosis has been scarcely studied.

To evaluate the relationship between SIBO and quality of life in patients with compensated liver cirrhosis treated at an outpatient Hepatology center in Cartagena de Indias, Colombia.

Materials and Methods: A cross-sectional and analytical study was conducted. Adult patients diagnosed with compensated liver cirrhosis and evaluated in the outpatient Hepatology clinic were included. A hydrogen breath test was used to detect SIBO, and the Chronic Liver Disease Questionnaire (CLDQ) was applied to assess quality of life. Patients with a positive SIBO result were treated with rifaximin according to clinical guidelines. A univariate linear regression analysis was used to examine the relationship between SIBO (independent variable) and CLDQ scores (dependent variable).

Results: Most participants were male (62.5%) with a mean age of 65 years. Hypertension was present in 53.1%, and 42.2% had type 2 diabetes. SIBO was detected in 29.7% of patients. The average CLDQ scores across evaluated domains did not show statistically significant differences between patients with and without SIBO: abdominal (p=1.21), fatigue (p=1.46), systemic (p=1.09), activity (p=1.18), emotional (p=0.87), and worry (p=1.00).

Conclusions: So far, no significant differences in quality of life have been found between patients with and without SIBO in compensated liver cirrhosis.

Conflict of interest: None

Tabla 1. Factores asociados a SIBO

Variable	SIBO n:39	NO SIBO n:45	p
Edad	68	62	0,006
Sexo femenino	50(29)	50(29)	0,32
Estrato			0,36
1	14,3(1)	85,7(6)	
2	44(11)	56(14)	
3	55,9(19)	44,1(15)	
4	54,5(6)	45,5(5)	
5	75(3)	25(1)	
6	33,3(1)	66,7(2)	
Etiología			0,173
Alcohólica	40(2)	60(3)	
Autoinmune	22,2(2)	77,8(7)	
Cirrosis biliar	0(0)	100(4)	
Criptogénica	63,6(14)	36,4(8)	
Hemocromatosis	0(0)	100(1)	
Hepatitis B	33,3(1)	66,7(2)	
Hepatitis C	63,6(7)	36,4(4)	
Lesión quirúrgica	0(0)	100(1)	
MASLD	46,4(13)	53,6(15)	
Diabetes mellitus 2	50(16)	50(16)	0,607
IMC	27,03	27,85	0,411
BT	0,99	1,10	0,558
BI	0,59	0,60	0,913
GOT	39,56	45,48	0,206
GPT	40,77	42,73	0,790
INR	1,12	1,16	0,165
PLT	194,578	201,368	0,892
CR	0,81	0,80	0,842
Albúmina	3,92	3,92	0,967

Tabla 2. Factores asociados a Calidad de vida

Variable	b	IC95	p
Sexo	0,07	-1,28-2,43	0,53
Edad	-0,05	-0,10-0,06	0,67
Estrato	0,04	-0,53-0,84	0,65
MSLD	-0,09	-2,91-1,30	0,44
IMC	-0,14	-0,29-0,06	0,20
BT	-0,09	-2,26-1,40	0,64
BI	0,14	-2,00-4,29	0,46
GOT	-0,02	-0,05-0,04	0,84
GPT	-0,02	-0,04-0,03	0,88
INR	0,04	-4,99-7,66	0,67
PLT	-0,07	0,00-0,00	0,58
Cr	0,28	0,98-7,37	0,01
Albúmina	0,10	-1,00-2,72	0,35
HTA	0,17	-0,38-3,11	0,12
DM2	-0,14	-2,95-0,71	0,22
Síntomas	-0,56	-5,93 a -2,71	0,00

Tabla 3. Relación calidad de vida y SIBO

Dominio	SIBO	NO SIBO
Dominio abdominal	4,74	4,72
Dominio fatiga*	3,76	4,28
Dominio sistémico	4,21	4,00
Dominio actividad	5,01	4,85
Dominio emocional	4,87	4,72
Dominio preocupación	4,50	4,07
CLDQ	27,22	26,51

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#17

IMPROVEMENT OF CARDIOVASCULAR RISK ASSESSMENT ON A COHORT OF PATIENTS WITH METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE (MASLD)

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Introduction and Objectives: Pulse Wave Velocity (PWV) and ultrasound analysis of the carotid and femoral arteries (CA/FA) may offer a more accurate estimation of the cardiovascular risk (CVR) than traditional scores beyond the Coronary Calcium Score. The aim was to evaluate the impact of PWV and Doppler examinations of the CA/FA as modifiers of CVR in MASLD-patients in whom traditional scores were calculated.

Patients and Methods: This was a sectional study in MASLD-outpatients without clinical atherosclerotic disease. The AHA/ACC, Framingham and PREVENT scores were calculated, with a value ≥ 20% considered high-risk. PWV index (patient-PWV/median PWV of the National CVR standard) was assessed (Arteris® AOP), and if ≥ 1 was considered as high-risk. CA/FA Doppler (Affiniti-70, Philips, USA) identified atherosclerotic plaques. The prevalence of high-risk patients was first calculated according to each score and reassessed after PWV and Doppler of CA/FA.

Results: One hundred fifty-three patients were evaluated between Oct-2023 and Mar-2025 (78% women, 60.2 ± 9.4 yrs., 68% obese, 79% SAH, 67% T2DM, 77% dyslipidemia). Regarding overall scores, 32% of patients were classified as high risk (Prevent 15%, AHA/ACC 18%, Framingham 26%). Notably, a high PWV-index was observed in 33%, and 76% had atherosclerotic plaques, characterizing established atherosclerotic disease. The risk reclassification by the PWV-index ocurred in 21%,25%, and 28%, and by the Doppler 53%,60%, and 62%, respectively, for the Framingham, AHA/ACC, and Prevent scores.

Conclusions: Patients with MASLD have a high prevalence of subclinical atherosclerosis. Traditional scores underestimated CVR, highlighting the need for additional methods for better risk stratification.

Conflict of interest: None

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#18

CHANGES IN BODY COMPOSITION AND HEPATIC ELASTOGRAPHY VALUES IN PATIENTS WITH METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE AT A MEDICAL CENTER IN CARTAGENA – COLOMBIA, DURING THE PERIOD FROM OCTOBER 2023 TO JANUARY 2025

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is characterized by the accumulation of triglycerides in the liver, linked to cardiometabolic risk factors. Its global prevalence exceeds 30%, rising in parallel with overweight and type 2 diabetes. Visceral fat is associated with systemic inflammation and hepatic fat accumulation. Although elastography is useful for assessing disease progression, its high cost and limited availability necessitate the exploration of alternative tools. The use of body composition parameters has been proposed as potential predictors of disease progression.

To determine the relationship between changes in body composition and hepatic elastography values in patients with liver disease associated with metabolic dysfunction.

Materials and Methods: This was an analytical, observational, and prospective study. Patients over 18 years old with a previous diagnosis of steatotic liver disease were included. All underwent elastography and bioelectrical impedance analysis at baseline and after one year to assess progression risk factors. The patients signed the informed consent.

Results: A total of 88 patients were included, 52.3% of whom were women. Initial elastography readings averaged 9.2 kPa; the controlled attenuation parameter (CAP) was 269 dB/m. Factors associated with elevated liver stiffness included type 2 diabetes, chronic kidney disease, AST, APRI, and FIB-4 scores. During follow-up, smoking, alcohol consumption, CAP, and changes in body fat were linked to disease progression. In multivariate analysis, only smoking and baseline CAP were independent predictors.

Conclusions: Smoking and baseline CAP were significantly associated with the risk of MASLD progression, suggesting their potential utility in guiding timely interventions.

Conflict of interest: None

Variable	b	IC 95%	p-value
Female sex	-0,209	(-3,681 - 0,535)	0,14
Arterial hypertension	-0,099	(-2,916 - 1,415)	0,49
Overweight	0,084	(-2,205 - 4,037)	0,558
Prediabetes/Type 2 diabetes mellitus	0,069	(-1,629 - 2,672)	0,628
Smoking	0,483	(2,2 - 7,2)	<0,001
Alcohol consumption	0,311	(0,002 - 0,032)	0,026
Changes in BMI	0,18	(-0,272 - 1,173)	0,216
Changes in waist circumference	0,047	(-0,060 - 0,083)	0,754
CAP	0,346	(0,005 - 0,041)	0,013
Changes in CAP	0,265	(-0,001 - 0,033)	0,06
Changes in body fat mass	0,274	(-0,013 - 0,634)	0,06
Changes in skeletal muscle mass	-0,1	(-1,423 - 0,696)	0,493
Changes in body fat percentage	0,345	(0,089 - 0,799)	0,015
Changes in waist-to-hip ratio	0,051	(-19,025 - 26,984)	0,729
Changes in visceral fat	0,217	(-0,147 - 1,066)	0,134

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#19

PLANT-DERIVED MONOTERPENE SYNERGIZES WITH SORAFENIB TO SUPPRESS DRUG-TRIGGERED HEPATOCELLULAR CARCINOMA IN ANIMALS

Amr Amin[1]

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Introduction and Objectives: Sorafenib (SB), while established as a first-line multikinase inhibitor for advanced hepatocellular carcinoma (HCC), demonstrates constrained clinical utility due to significant adverse effects and the emergence of drug resistance. To potentially enhance its therapeutic profile, we explored combination therapy with natural compounds. Previous investigations from our group identified safranal (SF), a major bioactive monoterpene constituent of saffron, as exhibiting notable anti-HCC properties.

This study aimed to investigate potential synergistic interactions between SB and SF that might improve HCC treatment outcomes.

Materials and Methods: We employed a chemically-induced cirrhotic HCC rat model to evaluate both SF monotherapy and SB-SF

combination therapy. Comprehensive molecular characterization included RNA sequencing with subsequent differential gene expression analysis, pathway enrichment studies, and protein interaction network mapping. Mechanistic findings were confirmed through immunohistochemical and immunoblotting techniques.

Results: The SB-SF combination demonstrated enhanced anticancer efficacy compared to SB alone. Transcriptomic profiling identified 45 differentially expressed genes associated with HCC suppression, particularly those involved in proliferation control, oxidative stress response, and apoptotic regulation. The combination therapy significantly downregulated key oncogenic markers including NF-κB-p65, COX-2, and β-catenin, suggesting its potential as a cost-effective therapeutic approach that warrants further clinical investigation.

Conclusions: The study reveals a multifaceted mechanism by which SF augments SB's anticancer activity in HCC. The combined treatment modulates critical oncogenic pathways including NF-κB and Wnt/β-catenin signaling while rebalancing apoptotic regulators through decreased Bcl-2 and increased Bax/caspase expression. Additionally, it suppresses proliferative markers such as Ki-67 and PCNA while attenuating inflammatory mediators including TNF-α and MMP-9. These coordinated effects demonstrate potent anti-tumorigenic, anti-angiogenic, and pro-apoptotic activity, highlighting the therapeutic promise of this combination approach for HCC treatment.

Conflict of interest: None

https://doi.org/10.1016/j.aohep.2025.101986

#20

CONNECTIVE TISSUE GROWTH FACTOR AS A MARKER OF FIBROSIS IN PATIENTS WITH CHOLESTASIS

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Introduction and Objectives: Connective Tissue Growth Factor (CTFG) is a multifunctional protein, plays a crucial role as a mediator in fibrogenic pathways involved in the development and progression of liver disease.

To establish the correlation between serum CTGF values by ELISA and the degree of liver fibrosis determined by transitional elastography in patients with cholestasis diagnosed with primary biliary cholangitis (PBC).

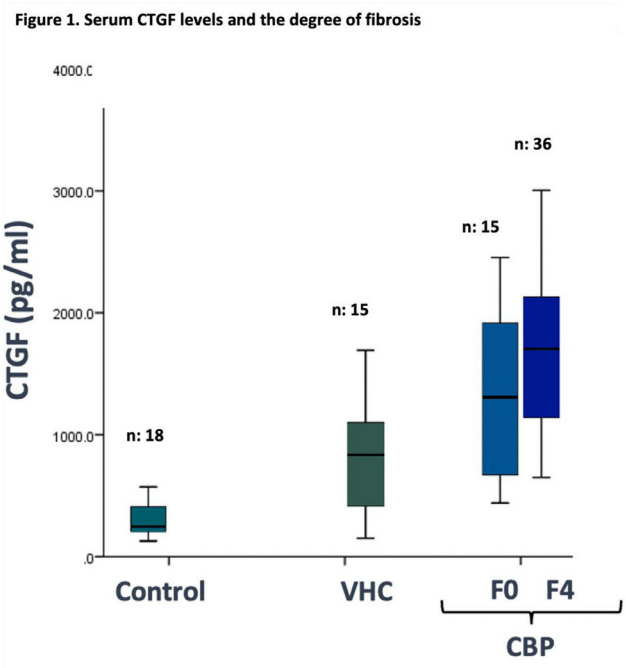
Materials and Methods: A descriptive and analytical prolective study that included patients with cholestasis diagnosed with PBC, patients with cirrhosis due to hepatitis C and a control group of healthy subjects. Serum CTGF levels and the degree of fibrosis were quantified. Statistical analysis: CTGF means were compared using a univariate model with etiology as an between-group factor and degree of fibrosis as an within-group factor, significance level 5%.

Results: 51 patients with PBC, 15 HCV and 18 controls were included. Age 48±15 years, 75% women. The level of CTFG in patients with cholestasis increased with increasing degree of fibrosis. PBC (F0) 1342.4±669.9; PBC (F4) 1679.9±623.3. HCV (F4) 816.3±431.6, CT 314.1±163. Statistically significant differences (p<.001) were found between groups CT vs PBC (F0); CT vs CBP (F4), HCV (F4) vs PBC (F4) and CT vs HCV (F4). Figure 1

Conclusions: There is a direct relationship between serum levels of CTFG of patients with cholestasis and degrees of fibrosis by transition elastography, perhaps it can be considered as a marker of fibrosis induction in patients with cholestasis.

Conflict of interest: None

Serum CTGF levels and the degree of fibrosis



https://doi.org/10.1016/j.aohep.2025.101987

#21

CONNECTIVE TISSUE GROWTH FACTOR ASSESSMENT: DETERMINATION OF CUT-OFF POINTS FOR LIVER FIBROSIS IN CHOLESTASIS

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Introduction and Objectives: Connective Tissue Growth Factor (CTFG) is a multifunctional protein, plays a crucial role as a mediator in fibrogenic pathways involved in the development of liver disease. Objective: To establish the correlation between the cut-off point of serum CTGF values by ELISA and the degree of liver fibrosis determined by transitional elastography in patients with cholestasis diagnosed with primary biliary cholangitis (PBC).

Materials and Methods: Prolective, descriptive and analytical study, which included patients with cholestasis, with cirrhosis due to hepatitis C and a control group. Serum CTGF levels were quantified in blood. The degree of fibrosis was determined by transitional elastography. The AUROC was calculated and the cut-off point was obtained with the Youden index to obtain sensitivity and specificity, between CT vs HCV-F4, CT vs CBP-F0, CT vs CBP-F4 and HCV-F4 vs CBP-F4.

Results: 51 patients with PBC, 15 HCV and 18 controls were included, Age 48±15 years, 75% female.The AUROC for HCV-F4 vs TC was .856 (.718-.994, CI95%) p<.001, cutoff 592.9, S=66.7%, E=94.4% for TC vs PBC-F0 was AUROC=.974 (.929-1.0,CI95%) p<.001, cutoff=596.18, S=93.3%, E=94. 4%, for TC vs PBC-F4 was AUROC=.997 (.989-1.0, CI95%), p<.001, S=100, E=94.4%, for HCV-F4 vs PBC-F0 was AUROC=.857 (.769-.956, CI95%), p<. 001, cut-off=1284.7, S=69.4%, E=93.3% and for HCV-F4 vs PBC-F4 was AUROC= .738 (.557-.918,IC95%), p=.026, cutoff=1288.6, S=53.3%, E= 93.3%.

Conclusions: There is a direct relationship between serum levels of GFRT of patients with cholestasis and specific cut-off points of discrimination for the different groups.

Conflict of interest: None

https://doi.org/10.1016/j.aohep.2025.101988

#22

EVALUATION OF RESPONSE TO SECOND LINE THERAPY IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS AND INADEQUATE RESPONSE TO UDCA: A PILOT STUDY OF LIVER BIOPSIES FOLLOW UP

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Introduction and Objectives: Response to second line therapy is improvement of cholestatic parameters and prevention of fibrosis or liver events. AIM: to evaluate response at Month 12 and identify epidemiological, clinical and histological findings related to response.

Patients and Methods: 50 patients initiating OCA (n=12), PPAR agonists (n=29) or combination of both (n=9) completed 12 months treatment and had baseline and M12 biopsy. Duct loss was evaluated with cytokeratin 7 and 19 and Scheuer staging applied. Biliary interface activity and bile duct damage recorded. Elastography was done at baseline and at 12 months. Statistical analysis using parametric t tests and 1-way ANOVA was performed.

Results: Mean age 53.6±10.6y and 84 % female. Mean ALP 388.8± 166.6, ALT 71.3±40.6 and BT 0.9±0.4. 10 patients were cirrhotic. Response to second line therapy was 30 % with POISE criteria (n=15) and 14 % for ALP normalization (n=7). Male sex (p.04), moderate/severe ductopenia (p.01), elevated ALT (82 vs 46, p.003), bilirubin (1.07 vs 0.7, p.02) and cirrhosis (p.02) correlated with no response. Moderate/severe portal inflammation with interface hepatitis and lobular spilling was observed in 28 samples, irrespective of age and correlated with fibrosis. No patient with severe inflammation achieved response (n=5), and only 21% with moderate inflammation (n=5). On FU biopsies, response related with improvement of inflammation in 11 patients. Mild ductopenia did not affect response. No LFT predicted cirrhosis or portal inflammation. Cirrhosis at month 12 correlated with liver events in 5 patients resulting in 1 liver related death and 3 transplants. Elastography correlated with cirrhosis and liver events (10.4 vs 22.9, p<0.001) but not with inflammation or ductopenia.

Conclusions: Non response (70 %) related to male sex, cirrhosis, transaminases, moderate/severe inflammation and ductopenia. Cirrhosis and elastography correlated with liver events. Adverse histological findings suggest early second line intervention.

Conflict of interest: None

https://doi.org/10.1016/j.aohep.2025.101989

#24

CORE MUTATIONS IN THE HBEAG-NEGATIVE STAGE ARE KEY DETERMINANTS OF HEPATITIS B VIRUS REPLICATION

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Introduction and Objectives: The natural history of chronic HBV infection is characterized by distinct stages resulting from virus-host interactions. In this context, a late and pivotal event is HBeAg seroconversion, marked by the abrogation of HBeAg expression, a significant reduction in viral load, and the accumulation of mutations throughout the genome. While HBeAg abrogation is associated with mutations in the BCP and preCore regions, these mutations do not, per se, account for the observed reduction in viral load. Our aim was to unravel, at the molecular level, the drivers involved in the HBV replication rate.

Materials and Methods: Full-lenght HBV genome obtained from plasma samples of one HBeAg-positive patient and three HBeAg-negative patients was extracted, amplified and cloned. The replicative capacity and HBsAg antigen expresion of these clones and the chimeras obtained through core gene exchanges was evaluated in vitro.

Results: The incorporation of the wild-type (WT) core protein into HBeAg-negative genomes restored all viral replication intermediates (cccDNA, pgRNA, rcDNA, and capsid-associated DNA) to levels comparable to those of the WT virus and vice versa (Figure 1). Furthermore, a regulatory role of mutations in the core protein was observed in the modulation of HBsAg expression and secretion (Figure 2).

Conclusions: HBV viral load is a critical factor in the progression of chronic hepatitis B and its associated adverse outcomes. Mutations identified subsequent to HBeAg seroconversion are frequently found within the core region, and these mutations demonstrate a strong association with both HBV-DNA replication capacity and HBsAg expression levels.

Conflict of interest: None

Figure 1

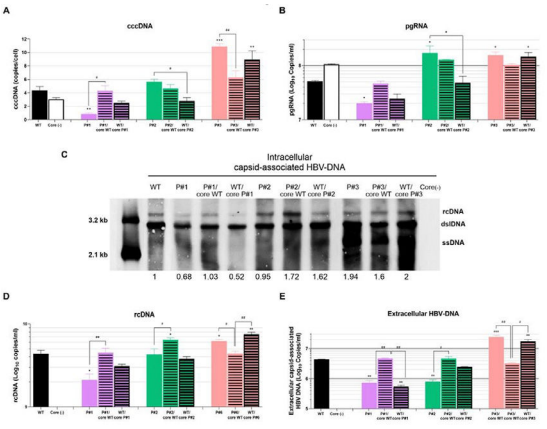

Figure 1: Replicative capacity of the chimeric HBV constructs. Huh-7 cells were transfected with linear full-length HBV genomes from WT, core-deficient (Core (-)), HBeAg-negative clones (P#1, P#2, P#3), and their respective chimeras (P#1/core WT, WT/core P#1, P#2/core WT, WT/core P#2, P#3/core WT, and WT/core P#3). Cells and supernatants were collected 3 days post-transfection. (A) Total DNA was extracted, treated with T5 exonuclease to remove nonsupercoiled dsDNA, and cccDNA levels were assessed by qPCR. Results were normalized to mitochondrial DNA. (B) Total RNA was extracted, and pgRNA levels were analyzed by RT-qPCR. (C) Intracellular capsid-associated HBV DNA was extracted, and replicative intermediates were assessed by Southern blot. The relative amount of ssDNA in relation to WT is shown below the image. (D) Total HBV DNA was quantified by qPCR and rcDNA levels were calculated by subtracting cccDNA from total HBV DNA. (E) Extracellular capsid-associated HBV DNA was quantified by qPCR. Shown values represent the mean ± standard deviation of three independent experiments. *: significant difference compared to WT; #: significant differences among chimeric constructs. Three symbols: p < 0.0001; two symbols: p < 0.005 and one symbol: p < 0.05. cccDNA: covalently closed circular DNA; rcDNA: HBV relaxed circular DNA; dslDNA: HBV double-stranded linear DNA; ssDNA: HBV single-stranded DNA; pgRNA: pregenomic RNA

Figure 2

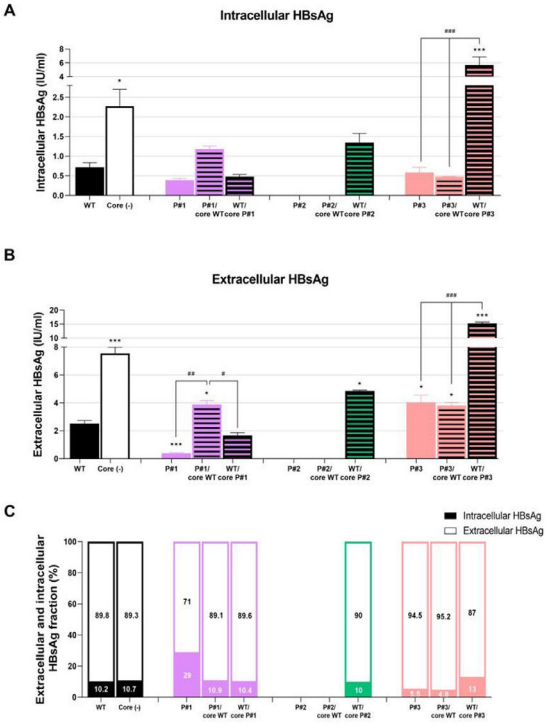

Figure 2: Intracellular and secreted HBsAg levels in chimeric HBV constructs. Huh-7 cells were transfected with linear full-length HBV genomes from WT, core-deficient (Core (-)), HBeAg-negative clones (P#1, P#2, P#3), and their respective chimeras (P#1/core WT, WT/core P#1, P#2/core WT, WT/core P#2, P#3/core WT, and WT/core P#3). Cells and supernatants were collected 3 days post-transfection. (A) Intracellular and (B) extracellular HBsAg levels were quantified using electrochemiluminescence immunoassay (ECLIA). (C) Extracellular/intracellular HBsAg ratio. Values shown represent the mean ± standard deviation of three independent experiments. *: significant difference compared to WT; #: significant differences among chimeric constructs. Three symbols: p < 0.0001; two symbols: p < 0.005 and one symbol: p < 0.05.

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#26

METABOLIC ASSOCIATED STEATOTIC LIVER DISEASE-RELATED SIGNIFICANT AND ADVANCED FIBROSIS' PREVALENCE IN BRAZIL AND THE ASSOCIATED ACCURACY OF FIB-4 AND VIBRATION-CONTROLLED ELASTOGRAPHY - A NATIONAL REGISTER

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Introduction and Objectives: Recent data regarding the prevalence of significant and advanced MASLD-related fibrosis in Brazil is unknown. We aimed to evaluate the prevalence of significant (SF, F≥2) and advanced (AF, F≥F3) fibrosis according to its different geographic regions, and the accuracy of FIB-4 and liver elastography by VCTE (Fibroscan, Echosens, Fr) for the diagnosis of SF and AF respectively.

Patients and Methods: This was a sectional study in ten Brazilian University Centers (Southeast, n=6; Northeast, n=1; South, n=3). Demographic, clinic, laboratory, liver stiffness measurement by VCTE (Fibroscan®, Echosens, Fr), and liver biopsy (LB) results were registered. The AUROCs for FIB-4 and VCTE regarding SF and AF were plotted with LB as a reference.

Results: 2905 patients were included (53% women, 64% white, 51 ± 14 yrs, 44% T2DM) According to LB (n=2122), most form the South

(72%; p<0.001), 75% were F0-F1, 12% F2, 9% F3 and 4% F4. Most data from VCTE are from Southeast (n = 1084, 85%). LSM< 8 kPa, between 8 and 12 kPa and ≥ 12 kPa was observed in 44%, 25% and 31% of patients. Most patients from the Southeast region presented a LSM ≥ 12 kPa (p = 0.01). FIB-4 score was <1.3 in 81% of patients. For F3, the AUROC for FIB-4 and LSM were 0.75 (95% CI: 0.70-0.80; p<0.01) and 0.72 (95% CI: 0.68-0.77; p<0.01) respectively and for F2, 0.67 (95% CI: 0.62-0.72; p<0.01) for FIB-4 and 0.64 (95% CI: 0.60-0.69; p<0.01) for VCTE.

Conclusions: Most MASLD patients with AF are from the Southeast. VCTE is primarily available in the Sotheast, affecting the stepwise fibrosis stratification of MASLD in other regions and justifying the higher proportion of LB in the South. The accuracy of FIB-4 and liver elastography by Fibroscan® is good for diagnosing AF, but not for SF.

Conflict of interest: None

https://doi.org/10.1016/j.aohep.2025.101991

#27

DURATION OF TYPE 2 DIABETES AS A CLINICAL PREDICTOR OF LIVER FIBROSIS IN PATIENTS WITH METABOLIC DYSFUNCTION ASSOCIATED STEATOTIC LIVER DISEASE

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Introduction and Objectives: Metabolic dysfuntion associated liver disease (MASLD) is highly prevalent in patients with type 2 diabetes mellitus (T2DM), and fibrosis progression is the main prognostic factor. However, clinical predictors of fibrosis remain unclear. Diabetes duration has been suggested as a potencial independent risk factor.

To assess the association between T2DM duration and liver fibrosis estimated by the FIB-4 index and liver stiffness measurement (LSM) in Dominican patients with MASLD.

Materials and Methods: A retrospective cohort study was conducted including 127 adults with MASLD, diagnosed based on hepatic steatosis detected by abdominal ultrasound and coexisting T2DM, following international criteria. Patients were evaluated at a tertiary care center in the Dominican Republic between July 2024 and January 2025.

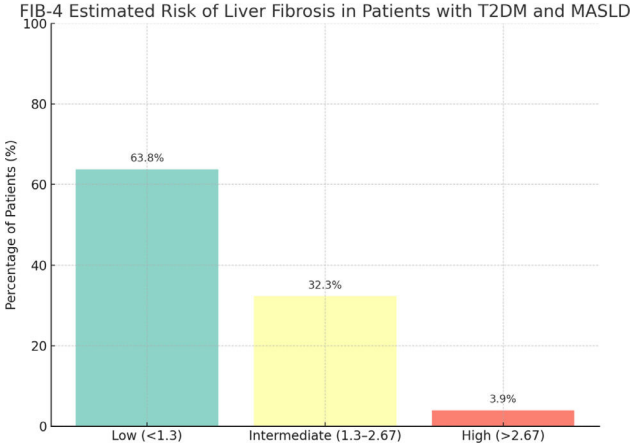
The FIB-4 was calculated using AST, ALT, platelet count, and age. LSM by transient elastography was available 32 cases. Diabetes duration was extracted from medical records and categorized into five groups (0-5, 6-10, 11-15, 16-20 y >20 years). Spearman correlation assessed associations between diabetes duration, FIB-4, and LSM. Nonparametric test compared fibrosis by duration groups. Significance was set at p<0.05.

Results: Mean age was 56.6 ± 13.9 years; 63 % were women. FIB-4 showed moderate correlation with T2DM duration (ρ=0.26, p=0.005) and age (ρ=0.49, p<0.001). In patient aged 35-65 years, FIB-4 strongly correlated with LSM (ρ=0.77, p<0.001). According to FIB-4 classification, 63.8% were low-risk (<1.3), 32.3% intermediate-risk (1.3-2.67), and 3.9% high-risk (>2.67) for advanced fibrosis.

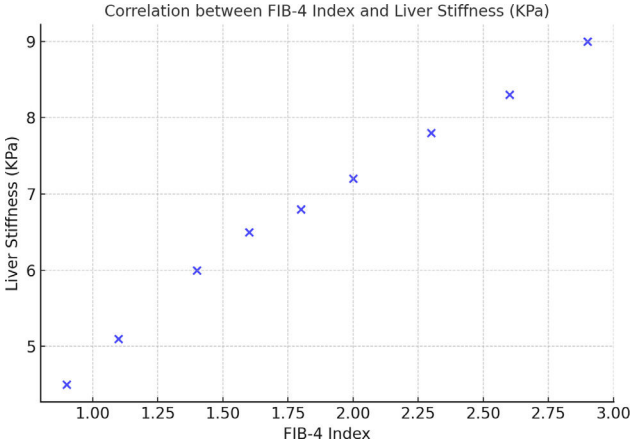
Conclusions: T2DM duration moderately correlates with FIB-4, especially in mind-aged adults, supporting its role in fibrosis risk models.

Conflict of interest: None

Estimated Risk of Liver Fibrosis in Patients with T2DM and MASLD



Correlation between FIB 4 index and liver stiffness (KPa))



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#30

FULL COMPLIANCE TO QUALITY INDICATORS IN ACUTE VARICEAL BLEEDING REDUCES 6-WEEK MORTALITY.

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Introduction and Objectives: Introduction: Quality indicators (QIs) for the management of acute variceal bleeding (AVB) encompass guideline-recommended interventions aimed at reducing mortality. However, the cumulative impact of full adherence to these measures remains unclear.

To evaluate whether complete compliance with five established QIs during AVB episodes is associated with reduced 6-week mortality.

Materials and Methods: This retrospective observational study included 135 AVB episodes from 2017 to 2024. Adherence to five QIs was assessed: antibiotic administration within 24 hours, vasoactive agent used within 24 hours, diagnostic endoscopy within 24 hours, endoscopic treatment, and beta-blocker prescription at discharge. Full adherence was defined as compliance with all five interventions. The primary outcome was 6-week mortality. Descriptive statistics and multivariate logistic regression adjusted for MELD score (<15 vs. ≥15) and Child-Pugh class (A/B vs. C) were performed. An interaction

term was included to evaluate whether the effect of QI compliance differed by Child-Pugh class.

Results: Overall 6-week mortality was 13.8%. Full adherence was achieved in 54.8% of episodes. Mortality rates by adherence level were 4.1% for full adherence, 16.3% for four QIs, and 42.9% for three or fewer QIs ($p < 0.001$). In multivariate analysis, full adherence was independently associated with lower mortality (OR 0.20; 95% CI 0.05–0.82; $p = 0.025$). Child-Pugh class C was also significantly associated with increased mortality (OR 9.68; $p = 0.001$). An interaction analysis showed that the protective effect of QI adherence did not differ significantly between Child-Pugh A/B and Child-Pugh C patients (interaction term $p = 0.87$), suggesting a consistent benefit across severity strata.

Conclusions: Complete compliance with evidence-based quality indicators significantly reduces 6-week mortality in patients with AVB, independent of baseline liver disease severity. Rigorous implementation of these measures should be prioritized as a standard of care in cirrhotic patients presenting with AVB.

Conflict of interest: None

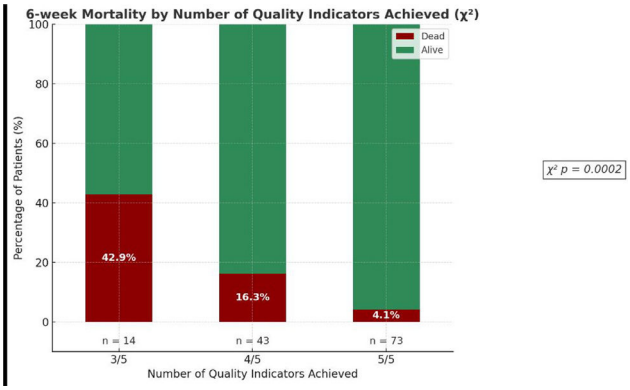

Table 1

Variable	Results
Age	58.5 y/o (IQR 51-64)
Gender	M: 65% F: 35%
MELD	15 (IQR 12-22)
Child	A: 31% B:48% C: 21%
Etiology	Alcohol 27% Viral: 25% MASLD 19% CBP 10% , HAI 7.5% Others: 11.5%
IQ accomplished %	5/5: 54.8% 4/5: 32.1% 3/5: 10.4% Other: 2.9%
Individual IQ accomplished %	ATB_24hs: 96.3% Octeotride_24hs: 67.2% U.endos_24hs: 92.5% Banding: 91% BB discharge: 66.4%

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#32

BLOOD MICROBIOTA ASSESSED BY NEXT-GENERATION SEQUENCING AND SYSTEMIC INFLAMMATION MARKERS IN ACUTE-ON-CHRONIC LIVER FAILURE: PILOT REPRESENTATIVE STUDY FROM WESTERN MEXICO

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Tonatiuh Abimael Baltazar Díaz[1],
Luis Gilberto Huerta Gómez[1],
Ksenia Klimov Kravtchenko[1],
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Introduction and Objectives: In Mexico, alcohol-associated cirrhosis is one of the leading causes of death. ACLF represents a critical scenario with elevated systemic inflammation and high mortality. The gut microbiota has been extensively studied; however, the blood microbiota (BM) remains unexplored. This study aims to analyze the composition and diversity of BM in patients with alcohol-associated decompensated cirrhosis (DC), ACLF, and healthy controls (HC); and to evaluate LPS, IL-6, leukocyte count and their association with mortality.

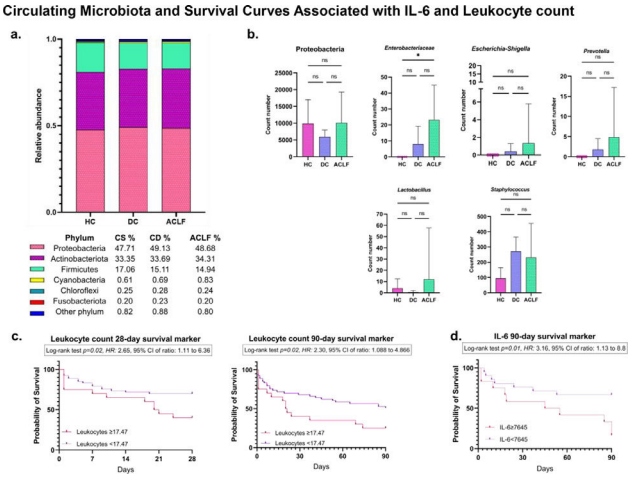
Materials and Methods: Cross-sectional analytical study, including 58 ACLF patients, 14 DC patients and 14 HC. BM was characterized in blood samples by 16S-rRNA gene sequencing. LPS and IL-6 levels were quantified by ELISA, and leukocyte counts were recovered from clinical files. Bioinformatic analysis was performed using QIIME2. Approval number: 00012.

Results: ACLF patients showed significantly reduced alpha diversity, particularly in ACLF grade III, compared to HC. Beta diversity revealed significant differences between DC vs ACLF, and ACLF vs HC. Proteobacteria was the predominant phylum in all groups; notably, Enterobacteriaceae, Escherichia/Shigella, Prevotella, and Lactobacillus were enriched in ACLF. Both DC and ACLF patients exhibited elevated LPS levels. IL-6 >7645 pg/mL and leukocyte count >17,470*10^3/μL were associated with increased 28- and 90-day mortality risk (HR=3.16 and 2.65).

Conclusions: ACLF is associated with circulating dysbiosis marked by expansion of potentially pathogenic bacteria and elevated LPS levels. These findings suggest an active bacterial translocation process that may contribute to systemic inflammation and higher mortality. These pioneering results in ACLF provide important insights into the gut-liver axis.

Conflict of interest: None

Circulating Microbiota and Survival Curves Associated with IL-6 and Leukocyte count



https://doi.org/10.1016/j.aohep.2025.101994

#34

ARTIFICIAL INTELLIGENCE IN PREDICTING THE RISK OF HEPATOCELLULAR CARCINOMA IN PATIENTS WITH METABOLICALLY ASSOCIATED STEATOTIC LIVER DISEASE: DEVELOPMENT AND VALIDATION OF A PREDICTIVE MODEL IN 306 PATIENTS

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Introduction and Objectives: To evaluate the accuracy of an artificial intelligence (AI) model, based on routine clinical and laboratory data, in predicting the risk of developing hepatocellular carcinoma (HCC) in patients with Metabolically Associated Steatotic Liver Disease (MASLD). Our aim was to create and validate a tool to support risk stratification and facilitate early surveillance of high-risk individuals.

Materials and Methods: This was a retrospective case-control study including 306 MASLD patients divided into an HCC group (129 patients), with diagnosis confirmed by histopathological criteria or LI-RADS classification, and a control group (177 patients). Collected variables included age, body mass index, comorbidities (diabetes mellitus, dyslipidemia, presence of portal hypertension), and serum laboratory parameters: aspartate aminotransferase (AST), alanine aminotransferase (ALT), albumin, creatinine, platelets, cholesterol (HDL, LDL, and triglycerides), and non-invasive indices: neutrophil-to-lymphocyte ratio (NLR), FIB-4, and AST/ALT ratio. The XGBoost (Extreme Gradient Boosting) AI algorithm was implemented, and the dataset was randomly split into a training cohort (80%) and an internal validation cohort (20%) to develop and assess the model's performance.

Results: The AI model demonstrated high discriminative ability for HCC, achieving an area under the ROC curve (AUC-ROC) of 0.9, with a sensitivity of 90.9% and specificity of 84.3%. The strongest predictors of HCC were serum creatinine, followed by the presence of portal hypertension, elevated NLR, and LDL levels.

Conclusions: The AI-driven model, developed using widely available clinical and laboratory parameters, demonstrated excellent performance in identifying MASLD patients at high risk of developing hepatocellular carcinoma. By enabling early and cost-effective risk stratification, this tool may support targeted surveillance strategies and improve clinical decision-making in real-world hepatology practice.

Conflict of interest: None

Model	AUC-ROC	Sensitivity (%)	Specificity (%)
MASLD-HCC Score (Our Model)	0.9	90.9	84.3
GALAD	0.92	82.0	89.0
AFP	0.83	61.0	86.0
Ultrasound (US)	0.81	63.0	97.0
AFP + US	0.83	69.0	95.0
HCC Risk Score	0.89	89.4	71.4
aMAP	0.85	96.0	64.0

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#37

EFFICACY AND SAFETY OF ILEAL BILE ACID TRANSPORTER INHIBITORS IN ADULTS WITH AUTOIMMUNE CHOLESTATIC LIVER CONDITIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction and Objectives: Autoimmune cholestatic liver diseases (ACLD), including primary biliary cholangitis (PBC) and primary sclerosing cholangitis (PSC), involve chronic bile duct injury and impaired bile flow, reducing quality and expectancy of life. Pruritus affects 20–70% of patients and is often resistant to treatment. Ileal bile acid transporter (IBAT) inhibitors, which reduce intestinal bile acid reabsorption, have emerged as a promising option for relieving cholestatic itch. This systematic review and meta-analysis evaluated the efficacy and safety of IBAT inhibitors in adults with ACLD.

Materials and Methods: A systematic review was conducted according to PRISMA guidelines using PubMed, Embase, and Cochrane-CENTRAL. Included studies enrolled adults with ACLD and pruritus lasting ≥12 weeks, treated with IBAT inhibitors. The primary outcome was change in pruritus severity (5-D Itch Scale). Secondary outcomes included sleep disturbance, serum bile acids, hepatic enzymes, and adverse events. Heterogeneity was assessed with I^2 and Cochrane Q tests.

Results: Three studies (n = 180)—two randomized controlled trials and one non-randomized study—met inclusion criteria. Most patients were female (78%), diagnosed with PBC (85%), and treated with linerixibat (77%). IBAT inhibitors significantly reduced pruritus scores (mean difference: -4.93; 95% CI: -6.26 to -3.59; $p < 0.0001$) and improved sleep quality (mean difference: -8.12; 95% CI: -13.54 to -2.70; $p = 0.0033$). Biochemical changes included decreased serum bile acids, autotaxin, and FGF19, and increased C4. AST and GGT levels declined, while ALT and bilirubin remained stable. Adverse events occurred in 89.7% of participants, mainly diarrhea (22.7%), abdominal pain (18.2%), and nausea (12.2%). Serious adverse events were rare (2.2%).

Conclusions: IBAT inhibitors significantly improved pruritus and sleep in adults with ACLD, with an acceptable safety profile. These findings support their potential as a novel treatment for cholestatic pruritus.

Conflict of interest: Yes, GGLC has received a research grant from IPSEN. The other authors have no conflicts of interest to declare.

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#40

THE ROLE OF GLYCEMIC CONTROL IN STEATOSIS AND HEPATIC FIBROSIS IN PATIENTS WITH A DIAGNOSIS OF TYPE 2 DIABETES MELLITUS

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Introduction and Objectives: Type 2 diabetes mellitus (DM2) prevalent in Mexico (18.3%) related to hepatic steatosis associated with metabolic dysfunction (MASLD), in 30%. Glycosylated hemoglobin (HbA1c) is a key biomarker of glycemic control. The aim of this study was to analyze the association between HbA1c levels and the degree of steatosis and hepatic fibrosis in type 2 diabetes mellitus.

Materials and Methods: The following study is observational, descriptive and retrospective in 90 patients older than 18 years with DM2, attended in gastroenterology outpatient clinic in a third level center, between February 2024 and February 2025. Hepatic Elastography (FibroScan®) and HbA1c determination were performed at the time of the study. Non-parametric statistics (Kolmogorov-Smirnov, Kruskal-Wallis and Mann-Whitney U with Bonferroni correction) were used.

Results: Of the patients studied, 78.9% were female and 21.1% male, for an H:M ratio of 1:3, the most affected age was between 41-50 (27.8%). 71.1% were at Hb1Ac goals, and 29% decompensated. The 71.1% were in Hb1Ac goals, and 29% were unbalanced. From the hepatic elastography (fibroscan) the results were statistically significant. The post hoc analysis revealed significant differences between patients without steatosis and hepatic steatosis grade II and III with ($p = <0.005$). According to the grade of hepatic fibrosis 39.1% presented hepatic fibrosis, the most predominant grade was 2 (in 16.7%) Table 1.

Conclusions: We conclude that the higher the degree of hepatic steatosis, the worse the glycemic control. All patients with DM2 should undergo hepatic elastography since hepatic fibrosis can present with glycosylated hemoglobin in goals and increase in a state of glycemic decompensation.

Conflict of interest: None

Table No. 1 Baseline Characteristics of the Sample

Variables		N	Percentage	
Age	20-30	5	5.6%	
	31-40	8	8.9%	
	41-50	25	27.8%	
	51-60	22	24.4%	
	61-70	21	23.9%	
	71-80	8	8.9%	
	81-90	1	1.1%	
Total		**90**	**100%**	
Sex	Male	19	21.1%	
	Female	71	78.9%	
Hemoglobin glycosylated	6.01-6.99% 7.01-9.00% 9.01-10.0%	64 19 07	71.1% 21.1% 7.8%	
Degree of Hepatic Steatosis	Without Steatosis Grade I steatosis Grade II steatosis Grade III steatosis	40 12 14 24	44.4% 13.3% 15.6% 26.7%	 <0.005 <0.005
Degree of Liver Fibrosis	F0-F1 F2 F3 F4	55 15 9 11	61.1% 16.7% 10.2% 12.2%	
Cross tables				
Liver fibrosis/Hb1Ac	F0-F1	F2	F3	F4
6.01-6.99% 7.00-9.00% 9.01-10.0%	43 (67.2%) 10 (52.6%) 2 (28.6%)	9 (14.1%) 5 (26.3%) 1 (14.3%)	5 (7.8%) 3 (15.8%) 1 (14.3%)	7 (10%) 1(5.3%) 3 (42.9)
Hepatic steatosis/Hb1Ac	Without Steatosis	Grade I Steatosis	Steatosis Grade II	Steatosis Grade III
6.01-6.99% 7.00-9.00% 9.01-10.0%	36 (53.6%) 3 (15.8%) 1 (14.3)	10 (15.6%) 2 (10.5%) 0 (0.0%)	*4 (6.3%) *8 (42.1%) *2 (26.8%)	*14 (21.9) *6 (31.6%) *4 (57.1%)

He following table represents the variables studied in the following study.

Ninety patients with a diagnosis of type 2 diabetes mellitus were studied with the aim of evaluating the association between HbA1c levels and the degree of steatosis and hepatic fibrosis. Of the total number of patients studied, 78.9% (71 patients) were female and 21.1% (19 patients) were male, for an H:M ratio of 1:3, the 3 most affected age ranges were 41-50 (27.8%) followed by 51-60 (24.4%) and 61-70 (23.9%). Based on glycosylated hemoglobin (Hb1Ac), 71.1% (64 patients) were at goal, followed by 21.1% (19 patients) who were decompensated maintaining glycosylated hemoglobin levels between 7.01-9.00% and 7.8% (7 patients) were found with Hb1Ac greater than 9.0%. The 90 patients underwent hepatic elastography (fibroscan) with statistically significant results in HbA1c levels between hepatic steatosis grade II 15.6% and grade III steatosis 26.7%. Post hoc analysis revealed significant differences between patients without steatosis and those with hepatic steatosis grade II and III with ($p = <0.005$). With respect to the degree of liver fibrosis, it was observed that 39.1% had liver fibrosis, the most predominant degree was grade 2 (F2) in 16.7% (15 patients), followed by grade 4 (F4-cirrhosis) 12.2% and grade 3 (F3) in 10.2% (9 patients).

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#41

IMPLEMENTATION OF A TEST AND TREAT MODEL FOR HCV CARE UTILIZING POINT OF CARE HCV RNA TESTING IN LA BODEGA

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[2] *Erie County Medical Center, USA.*

Introduction and Objectives: The World Health Organization (WHO) aims to eliminate hepatitis C virus (HCV) by 2030; however, the United States (US) is unlikely to meet this target. Screening, linkage, and treatment initiation remain suboptimal.

To evaluate Point-of-care (POC) HCV RNA test (Xpert® HCV) in a test and treat model of care among People Who Use Drugs (PWUD).

Materials and Methods: La Bodega, a co-localized hepatology and addiction medicine program in Buffalo, New York (NY), specializes in HCV management among active PWUD. POC HCV RNA testing is utilized on-site. Patients with a positive HCV RNA initiate HCV therapy at the time of the initial visit. POC HCV RNA testing is also used in

conjunction with lab-based RNA testing on serum to evaluate SVR4 when indicated.

Results: 65 people were screened with POC HCV RNA of whom 40 had a previous HCV antibody. 11 individuals were found to be HCV RNA positive. Eleven individuals were assessed for SVR, all of whom had both undetectable serum HCV RNA and negative POC HCV RNA results. Among RNA-positive individuals, one was linked to their primary care clinic based on the patient's preference and 10 individuals initiated therapy, receiving the full 8 or 12 weeks of therapy, depending on the chosen regimen. Two individuals remain on treatment; 6 are pending SVR assessment, and 2 achieved SVR, one of whom was pregnant and treated with sofosbuvir/velpatasvir.

Conclusions: POC HCV RNA testing is advantageous in shortening the HCV care cascade, enabling a true test-and-treat model of care for HCV.

Conflict of interest: Yes, speaking/consulting: Abbvie, Gilead, Madrigal, Ipsen, Braeburn, Cepheid

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#42

STATIN-INDUCED LIVER INJURY: DATA FROM URUGUAYAN PROSPECTIVE HEPATOTOXICITY REGISTRY.

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Introduction and Objectives: Statins, widely used for cardiovascular prevention, have been linked to idiosyncratic drug-induced liver injury (DILI). To characterize their clinical features, cases attributed to statins reported to the Uruguayan Hepatotoxicity Registry (UHR) were analyzed.

Materials and Methods: We conducted a descriptive observational study of DILI cases attributed to statins and reported to the UHR between November 2015 and April 2025. Variables assessed included age, sex, type of statin, latency, biochemical pattern, hypersensitivity features, jaundice, severity, and clinical outcomes.

Results: Among 197 DILI cases reported to the UHR, 14 (7.1%) were attributed to statins, predominantly atorvastatin (12 cases). Atorvastatin dose ranged from 10 to 80 mg, and rosuvastatin (the remaining 2 cases) dose was 20 mg. The mean age was 65.1 years. Latency varied widely (mean: 156 days), with the shortest latency (21 days) in the two patients treated with 80 mg of atorvastatin. Liver enzyme normalization occurred in nine patients (mean: 60 days), eight recovered within 180 days, and one at 202 days. One patient had persistent abnormalities at 231 days, while four cases had incomplete follow-up (<180 days). Eosinophilia was the only hypersensitivity feature identified; no cases showed autoimmune-like hepatitis. Detailed characteristics are presented in the attached table.

Conclusions: Statin-related DILI represented a small proportion of UHR cases, despite high population exposure and their classification as high-potential hepatotoxins (category A). This may suggest underreporting or underdiagnosis. Nonetheless, clinical presentation was generally mild, and outcomes were favorable following drug discontinuation, although follow-up was incomplete in several cases.

Conflict of interest: None

Characteristics of the population with statin-induced DILI

	Women	Men	Total
Type of statin			
Atorvastatin	6	6	12
Rosuvastatin	2	0	2
Mean age (years)	64,75	55,67	
Pattern of liver injury			
Hepatocellular	3	4	7
Cholestatic/mixed	5	2	7
Mean latency (days)	202,6	93,5	
Severity			
Mild	8	3	11
Moderate	0	3	3
Severe	0	0	0
RUCAM			
Definite	2	4	6
Probable	6	1	7
Possible		1	1
Unlikely/excluded	0	0	0
Jaundice*	1	3	4
Hypersensitivity			
Yes	0	3	3
No	5	2	7
No data	3	1	4

* One case corresponds to hepatocellular pattern (Hy's Law)

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#43

REAL-WORLD EFFECTIVENESS OF URSODEOXYCHOLIC ACID AND FIBRATES IN URUGUAYAN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS

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Introduction and Objectives: A considerable proportion of patients with primary biliary cholangitis (PBC) fail to achieve an adequate biochemical response to standard therapy with ursodeoxycholic acid (UDCA), which is associated with a poorer prognosis. This study aimed to evaluate the biochemical efficacy and tolerability of combining fibrates with UDCA in a cohort of Uruguayan patients with PBC.

Materials and Methods: A retrospective and descriptive cohort study was conducted. Adult patients with PBC who had persistently elevated alkaline phosphatase (ALP) levels after one year of UDCA treatment (13–15 mg/kg/day) and were subsequently treated with bezafibrate, fenofibrate, or ciprofibrate between 2018 and 2025 were included. Liver function tests were assessed at one and three months. The primary outcome was the ALP value at three months. Complete response was defined as normalization (ALP $\leq 1 \times$ upper limit of normal [ULN]) and partial response as a reduction from baseline without normalization.

Results: Twenty patients (17 women, mean age 51.4 years) met inclusion criteria (see Table). Eleven patients received fenofibrate (160–200 mg/day), seven bezafibrate (200–400 mg/day), and two ciprofibrate (100 mg/day). Three patients discontinued fibrates before three months due to hepatotoxicity (ALTx5 ULN). Among the remaining 17 patients, eight achieved complete response, six showed partial improvement (24–76% improvement from baseline), and three had no biochemical change.

Conclusions: UDCA-fibrate combination therapy was associated with biochemical improvement in the majority of patients. However,

the notable rate of hepatotoxicity warrants caution. Larger studies with extended follow-up are needed to validate these findings.

Conflict of interest: None

	Sex	Age at diagnosis	Cirrhosis	Type of Fibrate	ALP1 (ULN)	ALP2 (ULN)	ALP3 (ULN)	Response (%)
1	F	51	Yes	Fenofibrate	1.3	1.3	1.0	100
2	F	60	Yes	Fenofibrate	7.0	2.1	2.1	0.0
3	F	50	No	Fenofibrate	1.7	2.7	1.0	100
4	F	49	Yes	Fenofibrate	1.9	2.5	1.9	24.0
5	M	53	No	Bezafibrate	2.7	2.0	2.0	0.0
6	F	56	Yes	Fenofibrate	1.4	1.3	1.4	0.0
7	F	60	Yes	Fenofibrate	3.0	3.0	1.1	63.0
8	M	23	No	Ciprofibrate	4.5	4.6	1.4	69.0
9	F	43	Yes	Bezafibrate	2.27	4.1	1.5	63.0
10	F	58	No	Bezafibrate	2.1	2.1	0.7	100
11	F	44	Yes	Bezafibrate	5.5	3.6	0.9	100
12	F	51	No	Bezafibrate	1.2	1.2	1.0	100
13	F	57	No	Bezafibrate	4.8	4.8	0.4	100
14	F	67	No	Fenofibrate	6	6	4.7	21.8
15	F	55	No	Bezafibrate	1.97	1.52	0.9	100
16	F	48	Yes	Fenofibrate	2.4	2.4	-	-
17	F	51	No	Fenofibrate	1.36	1.36	-	-
18	F	49	No	Ciprofibrate	1.92	1.92	-	-
19	M	52	No	Fenofibrate	3.5	2.2	1	100
20	F	52	No	Fenofibrate	7.6	7.6	1.8	76

ALP1 (Alkaline phosphatase at one year of UDCA); ALP2 (Alkaline phosphatase prior to fibrate); ALP3 (Alkaline phosphatase three months into combined treatment)

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#44

COVID-19 MANAGEMENT WITH PENTOXIFYLLINE IN PATIENTS WITH STEATOHEPATITIS

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Introduction and Objectives: The COVID-19 pandemic has severely affected patients with comorbidities, especially those with steatohepatitis, increasing mortality in these groups. Pentoxifylline, a drug with anti-inflammatory and antiviral properties, has been proposed as a therapeutic option to improve outcomes in these patients.

The objective of this study is to evaluate the efficacy of pentoxifylline in the management of patients with COVID-19 and chronic liver disease, specifically those with steatohepatitis.

Patients and Methods: A retrospective observational study was conducted in the Gastroenterology and Hepatology Department of the ISSSTE Hospital from September 2020 to February 2022. Seventy-one patients diagnosed with SARS-CoV-2 were included, 24 of whom had a previous diagnosis of steatohepatitis, diagnosed through biochemical and imaging studies (ultrasound and FibroScan). Pentoxifylline was administered at 400 mg every 12 hours, along with antipyretics and oxygen support as needed. Biochemical parameters and clinical manifestations were assessed at baseline and at 8 weeks.

Results: 24 patients: 17 female (67%), 8 male (33%); mean age: 53.5 years. Patients with steatohepatitis showed significant improvement in biochemical parameters after treatment: C-reactive protein decreased from 33.32 to 16.9 mg/L ($p<0.0001$), and oxygen saturation increased from 86% to 92% ($p<0.008$). Clinical manifestations, such as cough and fever, also improved, and no significant adverse effects were reported.

Conclusions: Pentoxifylline was shown to be an effective and safe treatment in patients with COVID-19 and chronic liver disease, improving clinical and biochemical parameters without significant adverse effects. Multicenter, randomized studies are recommended to confirm its efficacy in larger populations and evaluate its potential in the management of emerging viral diseases.

Conflict of interest: None

Laboratory results

Parameter	Initial average	Final average	P-value	Reference values
C-reactive protein	33.32	16.9	< 0.0001	< 10 mg/l
AST	46.4	38.04	0.079	< 0 – 38 IU/l
ALT	351	41.5	< 0.0001	< 10 – 40 IU/l
DHL	174.4	268.8	< 0.001	< 140 – 248 U/l
Platelets	180.8	229.9	< 0.009	150 – 400 miles/Ul
Ferritin	499	150	< 0.003	< 24 – 336 ng/ml
D-dimer	725.44	340	< 0.04	< 100 ng/ml
Oxygen	86	92	< 0.008	95 – 100%

AST: aspartate aminotransferase, ALT: alanine aminotransferase, DHL: lactic dehydrogenase.

Clinic

Sign/symptom	Percentage (%)
Cough	60
Fever	48
CNS symptoms	46
Pneumonia	22
Chills	6
Arthralgia	6
Diarrhea	4

*Headache, anosmia, eugenics, insomnia, irritability, depression.

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#45

EXPERIENCE IN THE TREATMENT OF HEPATITIS C IN PREGNANT PATIENTS AT THE HEPATITIS CLINIC OF THE VERACRUZ HIGH SPECIALTY HOSPITAL

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Introduction and Objectives: Currently, HCV treatment options during pregnancy are not well-defined. Typical clinical practice is to

refer and link pregnant women for treatment after pregnancy and breastfeeding; however, in practice, very few have completed successful treatment. To date, three case series have been published that include safety results for HCV treatment in pregnancy. ACOG recommends that DAAs be initiated only through a clinical trial and that pregnant women while taking a DAA should be counseled about the risks and benefits of continuing treatment.

To report the experience of the HAEV Hepatitis Clinic with the treatment of 3 pregnant women with HCV on DAAs during the second half of pregnancy with sustained viral response (SVR) and no adverse effects to the combination to date.

Patients and Methods: Since 2021, three cases of pregnant women with HCV infection confirmed by viral load have been presented. After evaluation and categorization as F0-F1 by FIB 4, they were treated with Sofosbuvir-Velpatasvir 400/100 mg for 90 days

Results: Patients were treated with Sofosbuvir-Velpatasvir 400/100 mg for 90 days, with no reports of perinatal abnormalities. The subsequent negative viral load was achieved in the pair. Only one patient reported headache and dizziness as adverse symptoms. After monitoring, a planned termination of pregnancy was decided to reduce the risk of vertical transmission, and counseling on proper breastfeeding techniques was provided to discontinue breastfeeding.

Conclusions: Sofosbuvir-Velpatasvir was administered for 12 weeks without adverse effects on the pair, and SVR was achieved at the time of treatment in the three treated patients, demonstrating the effectiveness and safety of the treatment. This provides a solution to a public health and maternal-fetal problem in our setting, which prevents perinatal transmission. Following these results, we propose evaluating its use in similar cases with the intention of contributing to the eradication of HCV infection.

Conflict of interest: None

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#48

INR-PLATELET RATIO AS A PREDICTOR OF ESOPHAGEAL VARICES IN MEXICAN CIRRHOTIC PATIENTS

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Introduction and Objectives: High mortality from esophageal variceal bleeding necessitates primary prophylaxis in cirrhosis. Mexico's endoscopy-limited settings require biochemical predictors like the INR-Platelet Ratio (INPR) for variceal detection.The present work proposes that the INPR retains predictive validity for esophageal varices in Mexican cirrhotic patients.Consequently, validation of this hypothesis constitutes the primary objective of this investigation.

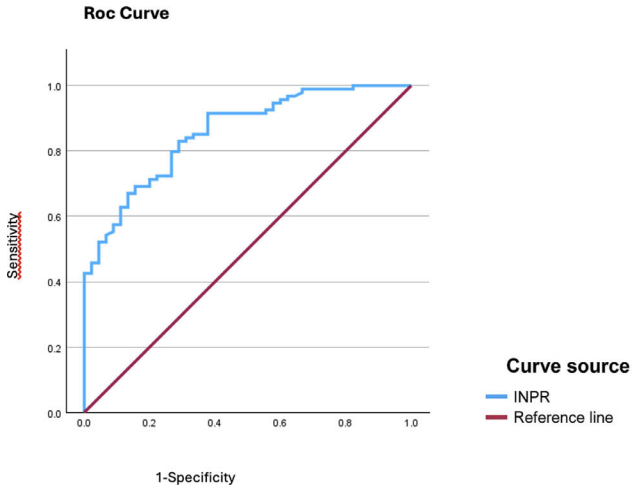
Patients and Methods: An observational, single-center study was conducted in the Gastroenterology Department of Hospital Juárez de México between 2023 and 2024.Inclusion criteria:Patients aged over 18 years with a diagnosis of cirrhosis confirmed by FIB-4 or hepatic ultrasound,and no prior endoscopic screening.A total of 139 patients were included: 71 women (51.1%) and 68 men (48.9%). Statistical analyses were performed using IBM SPSS Statistics software. Descriptive population analyses utilized frequencies and medians.Group comparisons were conducted using the chi-square test and Student's t-test,with a p-value <0.05 considered statistically significant.ROC curves and the Youden index were employed to identify optimal cut-off values for sensitivity and specificity.

Results: Using an INPR cut-off of ≥0.9463 for detecting esophageal varices (irrespective of size), the following performance metrics were achieved: sensitivity 83%, specificity 71%, PPV 85%, NPV 66%. +LR 2.87, -LR 0.24.

Conclusions: The INR-Platelet Ratio is an efficient tool for healthcare providers to initiate screening and prioritize early endoscopy, particularly in patients with other risk markers such as thrombocytopenia or Child-Pugh B/C cirrhosis.Future studies should evaluate its cutoff points to reduce unnecessary endoscopies and improve timely complication detection.

Conflict of interest: None

ROC curve for esophageal varices



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#50

LONGITUDINAL CHANGES IN STEATOTIC LIVER DISEASE SUBTYPE CLASSIFICATION AND SUBSEQUENT RISK OF MAJOR ADVERSE LIVER OUTCOMES

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Introduction and Objectives: Steatotic liver disease (SLD) includes metabolic dysfunction-associated steatotic liver disease (MASLD), alcohol-associated liver disease (ALD), and their intersection (MetALD). SLD subtype classification may change over time; however, the impact of these transitions on major adverse liver outcomes (MALO) is unknown.

Materials and Methods: We conducted a retrospective study of adults with imaging-confirmed steatosis (n=270,302) in the Veterans Health Administration (2010-2021). The primary exposure was change in SLD subtype classification between cohort entry (steatosis on imaging) and a 2-year landmark. The primary outcome was incident MALO (cirrhosis, decompensation, HCC, transplant, liver-related death). We calculated incidence rates per 100 person-years and multivariable cause-specific Cox regression models to examine the magnitud of the association between changes in SLD subtype and subsequent MALO.

Results: At the 2-year landmark, 8.2% of those with baseline MASLD were reclassified to MetALD or ALD, 34.2% of those with baseline MetALD were reclassified to MASLD or ALD, and 64.0% of those with baseline ALD were reclassified to MASLD or MetALD. Among baseline MASLD, the risk of MALO was higher for those reclassified to MetALD (HR 1.55;95% CI 1.40-1.71) or ALD (HR 2.13;95% CI 1.66-2.74) compared with those who remained MASLD. Among baseline MetALD, the risk of MALO was lower for those reclassified to MASLD (HR 0.55;95% CI 0.48-0.64) and higher for those reclassified to ALD (HR 1.80;95% CI 1.58-2.06) compared with those who remained MetALD. Among baseline ALD, the risk of MALO was lower for those reclassified to MASLD (HR 0.31;95% CI 0.21-0.46) or MetALD (HR 0.82;95% CI 0.70-0.96) compared with those who remained ALD.

Conclusions: Changes in SLD subtype classification are associated with distinct MALO risks.

Conflict of interest: Yes, NIH T32 DK007740

Association of changes in steatotic liver disease subtype classification with major adverse liver outcomes

Table. Association of changes in steatotic liver disease subtype classification with major adverse liver outcomes

Baseline	2-Year Landmark	No. (%)	Events	Person-Years	IR per 100 PY (95% CI)	Hazard Ratio (95% CI)[a]
MASLD	MASLD	194,635 (91.8)	3,418	799,771	0.43 (0.41-0.44)	1 [Reference]
	MetALD	15,720 (7.4)	431	63,561	0.68 (0.62-0.75)	1.55 (1.40-1.71)
	ALD	1,561 (0.7)	62	6,515	0.95 (0.74-1.22)	2.13 (1.66-2.74)
MetALD	MetALD	30,623 (65.8)	1,125	127,571	0.88 (0.83-0.93)	1 [Reference]
	MASLD	11,686 (25.1)	229	48,907	0.47 (0.41-0.53)	0.55 (0.48-0.64)
	ALD	4,236 (9.1)	279	16,976	1.64 (1.46-1.85)	1.80 (1.58-2.06)
ALD	ALD	4,260 (36.0)	272	16,639	1.63 (1.45-1.84)	1 [Reference]
	MASLD	1,325 (11.2)	28	5,692	0.49 (0.34-0.71)	0.31 (0.21-0.46)
	MetALD	6,256 (52.8)	335	25,391	1.32 (1.19-1.47)	0.82 (0.70-0.96)

ALD, alcohol-associated liver disease; CI, confidence interval; IR, incidence rate; MASLD, metabolic dysfunction-associated steatotic liver disease; MetALD, metabolic dysfunction and alcohol-associated liver disease; No, number; PY, person-years.

Note: Percentages have been rounded and may not total 100.

[a] Major adverse liver outcome was defined as the first occurrence of cirrhosis, decompensation, hepatocellular carcinoma, liver transplant, and liver-related death. Hazard ratios were estimated using cause-specific Cox proportional hazards regression models, adjusted for age, sex, smoking status, social deprivation index, and index year.

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#51

ATORVASTATIN AND GENE EXPRESSION SIGNATURES IN HEPATOCARCINOGENESIS

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Introduction and Objectives: Hepatocellular carcinoma (HCC) represents a significant global health burden as the fourth leading cause of cancer-related deaths. While statins have shown promise in HCC prevention, their molecular mechanisms remain poorly understood.

We investigated the effect of atorvastatin (AT) on gene expression profiles and hepatocarcinogenesis in a hexachlorobenzene (HCB)-induced HCC model.

Materials and Methods: Male Wistar rats were divided into four groups: control, AT (5 mg/kg), HCB (100 mg/kg), and AT+HCB. After 30 days of treatment, we analyzed hepatosomatic index, liver histology, and performed RNA sequencing to evaluate transcriptomic changes. Gene Set Enrichment Analysis and KEGG pathway analysis were used to identify key molecular pathways. Protein expression of selected targets was confirmed by immunohistochemistry.

Results: HCB treatment significantly increased hepatosomatic index (28%, $p<0.01$) and induced preneoplastic lesions, which were prevented by AT co-administration. RNA sequencing revealed HCB activated multiple oncogenic pathways, including RHO GTPase cycle, TGF-β, and receptor tyrosine kinase signaling, with 84.8% concordance with established cancer pathway genes. AT treatment upregulated protective PPAR signaling, autophagy, and cellular stress response pathways while downregulating oncogenic pathways activated by HCB. AT significantly reduced the expression of key oncogenic proteins including TGF-β1, p53, and c-Myc in HCB-treated liver tissue.

Conclusions: Atorvastatin effectively prevents HCB-induced hepatocarcinogenesis through multiple mechanisms, including modulation of key oncogenic pathways and promotion of protective cellular responses. These findings provide new insights into the molecular mechanisms of statin-mediated HCC prevention and identify potential therapeutic targets for future interventions.

Conflict of interest: Yes, National Council of Scientific and Technological Research (PIP GI-11220200100397CO), University of Buenos Aires (PID 20020170100278BA) and intramural Funds to the Clinical Cooperation Unit Healthy Metabolism, Medical Faculty Mannheim, Heidelberg University.

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#55

REPRIORITIZING THE LIVER TRANSPLANT WAITING LIST: IMPACT OF AUTOMATIC MELD-NA 29 FOR REFRACTORY ASCITES

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Introduction and Objectives: In Brazil, liver allocation follows the MELD-Na score. To address high-risk conditions not reflected by high scores, special situations are evaluated individually. Refractory ascites and hepatocellular carcinoma (HCC) account for ~80% of such cases. In 2021, Technical Note No. 32/2021 granted 29 MELD-Na points to patients with refractory ascites to improve access to liver transplant (LT).

Primary, to compare the time from special situation approval to LT in cases of refractory ascites and HCC, before and after the new policy. Secondary, assess transplant volume and waiting list mortality in both groups.

Patients and Methods: Retrospective, single-center study including adult patients granted special situation for refractory ascites or HCC in 2018–2020 (pre-policy) and 2022–2024 (post-policy). Cases from 2021 were excluded. Outcomes were time to LT, mortality on the waiting list, and transplant numbers.

Results: In refractory ascites, median time to LT decreased by 95 days (186 to 91; −51.1%). In HCC, waiting time increased by 36 days (197 to 233; +18.3%). Waiting list mortality dropped in both groups: from 16% to 7% for refractory ascites and from 11% to 6% for HCC. The absolute number of transplants remained stable across periods.

Conclusions: Technical Note 32/2021 had a direct positive impact on patients with refractory ascites. However, it was associated with increased waiting time for HCC patients, although without increased mortality. These findings highlight the need for continuous monitoring of allocation policies and broader multicenter evaluation.

Conflict of interest: None

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#56

PRIMARY MALIGNANT LIVER TUMORS: A 20-YEAR RETROSPECTIVE POSTMORTEM REVIEW

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Introduction and Objectives: Primary malignant liver tumors represent one of the leading causes of cancer-related mortality worldwide. Their incidence has increased over recent decades, paralleling the rise in chronic liver diseases.

To determine the prevalence of different non-metastatic primary malignant liver tumors found in autopsies performed between 2003 and 2023 at a tertiary care center.

Materials and Methods: A retrospective, descriptive, observational study of autopsies performed in the pathology department of a tertiary care center between 2003 and 2023. Descriptive statistics were used, including measures of central tendency and dispersion.

Results: Autopsy was performed on 10,139 patients, 126 (1.24%) were classified as malignant primary liver tumors with 63±12 years, 52 females (41.3%) and 74 males (58.7%) and were distributed as follows: Hepatocarcinoma 99 (78.5%) with 63±12 years, 39 women (38.6%) and 60 men (59.4%); 38 (37.6%) had metastases mainly in lung followed by lymph nodes, only 9% were not related to cirrhosis; Intrahepatic cholangiocarcinoma 24 (19%) with 65 ±14 years, 12 males (50%), 12 females (50%), 70.8% had pulmonary metastases and 47.8% were not related to cirrhosis.Hepatic primitive neuroectodermal tumor 2 (1.59%) with 54 ±5.6 years with pleural and pulmonary metastases. Fibrolamellar carcinoma 1 (0.79%) with 24 years and metastasis in lymph nodes.

Conclusions: The prevalence of liver tumors in autopsy is low, the most prevalent being hepatocarcinoma followed by cholangiocarcinoma.

Conflict of interest: None

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#57

ANTIPHOSPHOLIPID ANTIBODIES ASSOCIATED VASCULAR EVENTS ARE AN UNDERRECOGNIZED CAUSE OF MORBIDITY AND MORTALITY AFTER LIVER TRANSPLANTATION: BENEFIT OF PLASMAPHERESIS AND ANTICOAGULATION IN TRANSPLANTED PATIENTS WITH HIGH THROMBOTIC RISK

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Introduction and Objectives: Circulating antiphospholipid antibodies (aPL-abs) are common in end-stage liver disease and increase the risk of vascular thrombosis, graft loss, and morbidity post-liver transplantation (OLT). This risk is heightened in patients with prior thrombotic events or high aPL-ab titers. Plasmapheresis and anticoagulation have been proposed to treat aPL-induced complications.

To assess the preemptive effect of pre-OLT plasmapheresis combined with post-OLT anticoagulation in high-risk patients with aPL-ab undergoing OLT.

Materials and Methods: From 2005–2021, 321 patients undergoing OLT were screened for aPL-ab and lupus anticoagulant. Eighty-six patients (27%) tested positive; 29 met high-risk criteria and were randomized:

Group A (n=12): standard post-OLT prophylaxis (aspirin ± low-molecular-weight heparin).

Group B (n=17): pre-OLT plasmapheresis (1–2 hours prior) with fresh frozen plasma, followed by anticoagulation (low molecular-weight heparin or warfarin) for 6 months post-OLT.

Both groups had comparable liver disease etiology, severity, and immunosuppress-OLTsion regimens (steroids + cyclosporine/tacrolimus ± mycophenolate, basiliximab induction in 14 cases). Clinical, biochemical and Doppler evaluations were performed pre-OLT and during the first six months post-transplant. aPL-abs were measured at baseline, day 5 and day 30 post-OLT.

Results: In Group A, 11/12 patients developed post-OLT aPL-related complications (e.g., cerebrovascular ischemia, CAPS, hepatic/portal thrombosis), leading to 5 deaths, 1 graft loss, and 1 irreversible neurological injury. Median time to event: 3.6 ± 2.9 months.

In Group B, 3/17 patients developed complications (2 CAPS, 1 hepatic artery thrombosis) resulting in 2 deaths. Mean time to event: 10 ± 4 days.

Thrombotic complication rate: 37.9% (Group A) vs. 10.3% (Group B), p<0.0001. A non-significant trend towards higher aPL-related mortality was noted in Group A (17.2% vs. 6.9%, p=.06).

Conclusions: aPL-abs are a significant and often overlooked cause of post-OLT thrombotic complications and mortality. Pre-OLT plasmapheresis combined with early anticoagulation may reduce complications in high-risk patients.

Conflict of interest: None

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#58

ASSESSMENT OF FIBROSIS AND STEATOSIS IN PATIENTS WITH METABOLIC ASSOCIATED STEATOTIC LIVER DISEASE USING TWO TRANSIENT ELASTOGRAPHY TECHNIQUES

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Introduction and Objectives: Metabolic associated steatotic liver disease (MASLD) is one of the leading causes of chronic liver disease worldwide. Accurate non-invasive assessment of hepatic fibrosis and steatosis is critical for cirrhosis progression risk stratification and clinical decision-making. While FibroScan® is a well-validated transient elastography technique, Hepatus® has emerged as a comparable technological alternative. There are few studies directly comparing the two modalities. This study aimed to compare the performance of FibroScan® and Hepatus® in evaluating hepatic fibrosis and fat deposition degree in patients with hepatic steatosis.

Materials and Methods: A prospective, blinded validation study was conducted in 122 adult patients with hepatic steatosis diagnosis. Liver stiffness (kPa) and steatosis (dB/m) were assessed on the same day using both devices by independent expert operators, ensuring optimal examination quality (IQR/M <0.3). Correlation, agreement

and differences were analyzed using appropriate statistical tests and post-hoc analysis.

Results: For liver fibrosis, both devices showed strong correlation (r=0.85, p<0.05) and substantial agreement (Kappa=0.77), with greater concordance in advanced stages and no significant differences in mean values. Regarding hepatic steatosis, although Hepatus® reported higher absolute values (p<0.05), it showed an almost perfect positive linear correlation with FibroScan® (r≈1). Agreement for steatosis staging was moderate (Kappa=0.39), with discrepancies mainly observed in extreme categories (S0 vs S3).

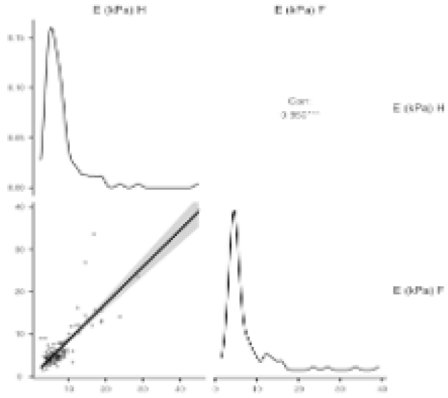
Conclusions: FibroScan® and Hepatus® show high concordance and strong correlation in assessing liver fibrosis and steatosis quantification. Hepatus® may serve as a viable clinical alternative for non-invasive evaluation of MASLD in diverse healthcare settings.

Conflict of interest: None

Characteristics of patients included in the analysis

n=122	n (%)
Median age (range)	55 (22-88)
Sex	
Male	63 (51,6)
Female	59 (48,4)
BMI (Body Mass Index)	
<30	91 (74,5)
>30	31 (25,5)
Optimal IQR/M	
FibroScan®	122 (100)
Hepatus®	122 (100)
Fibrosis	
FibroScan®	
F0-F1	95 (77,8)
F2	8 (6,7)
F3-F4	19 (15,5)
Hepatus®	
F0-F1	82 (67,2)
F2	16 (13,1)
F3-F4	24 (19,7)

Correlation of fibrosis measurements between FibroScan® and Hepatus®



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#59

FROM PATIENT TO EXPERT: EDUCATION FOR SELF-MANAGEMENT OF HEPATOCELLULAR CARCINOMA IN A CLINICAL EXCELLENCE PROGRAM

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Oscar Alfredo Beltrán Galvis[1],
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Introduction and Objectives: Education for patients and caregivers is essential to improve understanding of hepatocellular carcinoma, support self-management, and promote informed decisions. At Fundación Cardioinfantil, a structured educational program was implemented as part of the Clinical Excellence Program. This work aims to describe the program's implementation, and the progress achieved in patient knowledge, treatment adherence, and continuity of care at home.

Materials and Methods: A descriptive, cross-sectional study was conducted to describe the educational process delivered to patients with hepatocellular carcinoma and their caregivers. Patients are initially assessed to determine their level of disease knowledge and classified into basic, intermediate, or advanced levels. Based on this, they receive a personalized education plan with printed materials and guided sessions. Progress is evaluated quarterly during follow-up visits to reinforce or adjust the intervention.

Results: Since its implementation, the program has provided education to 106 patients. Currently, 68% have progressed to intermediate or advanced levels, while 32% remain at the basic level, either because they are in the early stages of the program or awaiting the start of treatment. Among the 40 active patients, 28 have reached an advanced educational level, reflected in greater disease understanding, recognition of warning signs, and improved adherence reported during clinical follow-up.

Conclusions: Educational strategy implemented within the Hepatocellular Carcinoma Clinical Excellence Program has proven effective in empowering patients through a structured and personalized approach. The educational progress underscores the value of integrating education into clinical care, allowing patients to actively and confidently participate in managing their condition. This experience represents a replicable model that could be adapted to other chronic disease care initiatives, particularly in high-complexity healthcare settings across Latin America.

Conflict of interest: None

Figure 1. Educational Program – HCC Clinical Excellence Program

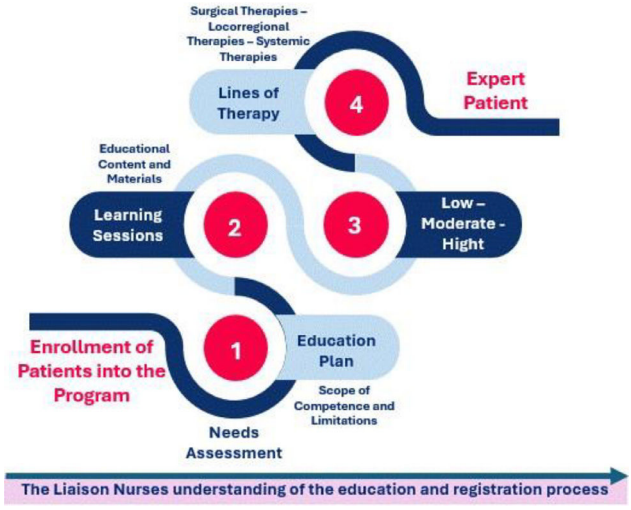
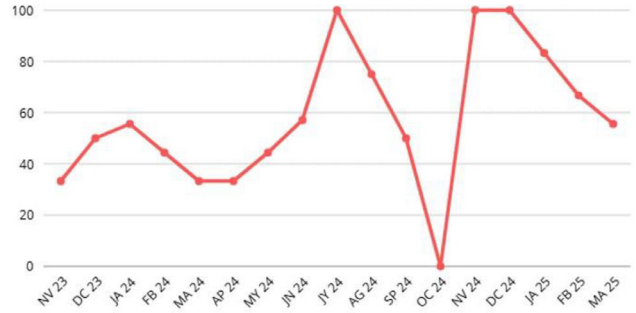


Figure 2. Educational Outcomes – HCC Clinical Excellence Program



https://doi.org/10.1016/j.aohep.2025.102010

#60

NON-INVASIVE HEMODYNAMIC ASSESSMENT IN CIRRHOSIS: CHILD-PUGH STRATIFICATION AND A PLATELET THRESHOLD TO DEFINE THE HYPERDYNAMIC STATE

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Introduction and Objectives: Cirrhosis initially presents a hyperdynamic profile—elevated cardiac output (CO), reduced systemic vascular resistance (SVR) and arterial pressure—which may later evolve into low-output cardiocirculatory failure. Impedance cardiography (IC) enables non-invasive quantification of these changes. To integrate them, we developed the unitless Cardiac Haemodynamic Status (CHS) index, defined as $\sqrt{(CO^2 + SVR^2 + \text{arterial compliance } [AC]^2)}$, with all parameters standardised prior to calculation. This study aimed to compare CO, SVR, AC and CHS across healthy controls and cirrhotic patients stratified by Child-Pugh class (A/B/C), and to determine whether a platelet threshold lower than the conventional 140×10^3 /μL more accurately identifies the hyperdynamic circulatory phenotype.

Materials and Methods: Cross-sectional study (2023-2025) of 12 controls and 40 β-blocker–free cirrhotics (A 20, B 12, C 8). Each subject underwent IC. Normality was checked (Shapiro–Wilk); groups were compared with Kruskal–Wallis and Holm-adjusted Mann–Whitney tests. All observed platelet counts ($40–190 \times 10^3$ /μL) were screened; the cut-off with the lowest p and highest Youden index for CHS was validated by bootstrap ROC.

Results: CO, SVR, AC and CHS differed among the four groups ($p \leq 0.006$) (Table). Versus controls, C-P A showed higher SVR/CHS but lower CO/AC; C-P B displayed an isolated CO rise; C-P C had higher SVR/CHS (all $p<0.04$). A platelet threshold of 93×10^3 /μL optimally discriminated hyperdynamism (p=0.006; Cohen d 0.86; AUC 0.82). Patients below this level had higher CO, AC and CHS and lower SVR.

Conclusions: IC identifies three distinct haemodynamic phenotypes across Child-Pugh classes. The CHS index captures these profiles, while a platelet count below 93×10^3 /μL appears to be a useful surrogate of hyperdynamic circulation.

Conflict of interest: None

Variable	Controls	Child A	Child B	Child C	p
Cardiac output (CO) (L·min)	6.78 ± 1.41	4.76 ± 1.48	8.27 ± 4.10	6.20 ± 3.25	0.006
Systemic vascular resistance (SVR) (dyn·s·cm^{-5})	892 ± 207	1 677 ± 801	1 024 ± 608	1 147 ± 421	0.002
Arterial compliance (AC) (mL·mmHg^{-1})	2.69 ± 0.75	1.47 ± 0.52	2.41 ± 0.98	1.97 ± 0.93	0.001
CHS index	0.93 ± 0.21	1.74 ± 0.81	1.12 ± 0.61	1.21 ± 0.42	0.002

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#63

IRON METABOLISM DISTURBANCES ARE ASSOCIATED WITH LIVER FIBROSIS SEVERITY IN MASLD: A CROSS-SECTIONAL STUDY USING NON-INVASIVE TOOLS

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is the most prevalent chronic liver disease worldwide. Disturbances in iron metabolism—particularly hyperferritinemia—may play a role in fibrosis progression through mechanisms involving oxidative stress and chronic inflammation.

To describe iron metabolism parameters in patients with MASLD and analyze their association with liver disease severity using non-invasive tools.

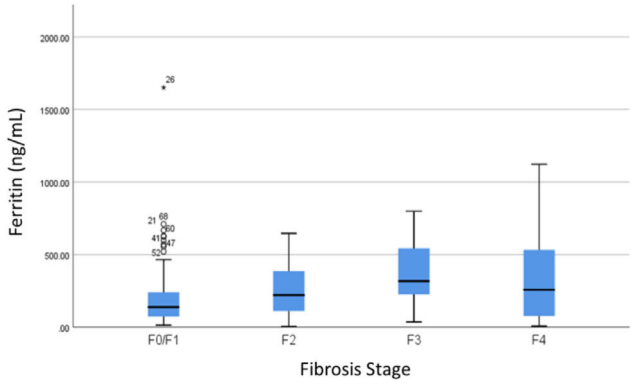
Materials and Methods: We conducted a cross-sectional study including 199 adult patients with MASLD followed at a specialized hepatology clinic (2022–2024). Clinical, anthropometric, and biochemical variables were collected, including serum ferritin, transferrin, serum iron, and transferrin saturation index (TSI). Liver fibrosis was evaluated by FIB-4 score and transient elastography (FibroScan®); steatosis was assessed by controlled attenuation parameter (CAP). Non-parametric statistical tests were applied (Spearman correlation, Kruskal–Wallis, chi-square).

Results: The mean age was 57 ± 12 years; 58.3% were women and 39.7% had type 2 diabetes. The mean BMI was 33.8 ± 6.3 kg/m^2. Hyperferritinemia was observed in 43.4% of patients. Elevated ferritin, serum iron, and TSI were significantly associated with higher FIB-4 scores ($p < 0.05$). Ferritin levels were also significantly associated with liver stiffness measured by FibroScan® ($p < 0.05$). No significant association was found between iron metabolism parameters and the degree of steatosis assessed by CAP.

Conclusions: Iron metabolism disturbances, particularly hyperferritinemia, are frequent in MASLD and associated with greater risk of liver fibrosis, but not with steatosis. These findings support the potential utility of iron biomarkers as adjunctive non-invasive indicators of disease progression.

Conflict of interest: None

Serum ferritin levels by hepatic fibrosis stage (FibroScan®).



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#64

AMA-NEGATIVE PRIMARY BILIARY CHOLANGITIS IN LATIN AMERICA: A DISTINCT SUBSET WITH LOWER TREATMENT RESPONSE

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Introduction and Objectives: Primary biliary cholangitis (PBC) is an autoimmune cholestatic disease, typically diagnosed by the presence of anti-mitochondrial antibodies (AMA). Whether AMA-negative PBC represents a distinct clinical phenotype remains controversial. This study aimed to characterize the epidemiological profile of PBC according to AMA status in Latin America.

Materials and Methods: This ongoing, retrospective, international multicenter cohort study, sponsored by ALEH, includes PBC patients from multiple Latin American countries. Patients were stratified by AMA status; those with autoimmune hepatitis-PBC overlap were excluded.

Results: Data from 1,204 patients were analyzed: Brazil (48.3%), Argentina (23.4%), Chile (10.8%), Mexico (7.4%), and others. Most were female (92.3%) with a mean age at diagnosis of 53±13 years; 22.2% had cirrhosis at baseline. Overlap syndrome was excluded. AMA were positive in 76.8%. AMA-positive and AMA-negative patients had similar rates of female sex (92.5% each, p=0.963), baseline cirrhosis (22.4% vs. 23.6%, p=0.706), and symptomatic presentation (77.5% vs. 79.4%, p=0.544). MASLD was more frequent among AMA-negative patients (7.5% vs. 3.8%, p=0.024), which also had higher rates of sp100 (9.1% vs 2.5%, p< 0.001) and gp210 (7.3 vs 3.3%, p< 0.001) positivity. Treatment with UDCA was performed in 95.2% of patients and, from those, 28.3% had second line treatment indicated due to incomplete response to UDCA. AMA-positive patients showed higher response to ursodeoxycholic acid (UDCA) at 12 months, including ALP normalization (29.7% vs. 21.2%, p=0.035) and deep response (17.5% vs. 8.6%, p=0.007). Similar findings were observed after 12 months of fibrate therapy (34.8% vs. 9.4%, p=0.005). No difference was found in transplant-free survival (p=0.213).

Conclusions: AMA-negative PBC patients in Latin America present similar baseline features but have lower response rates to UDCA and fibrates, supporting the hypothesis of a biologically distinct disease subset.

Conflict of interest: Yes, Sponsor by: ALEH/Gilead

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#65

FIBRATES SEEM TO BE EQUALLY EFFECTIVE AS SECOND-LINE THERAPY IN PRIMARY BILIARY CHOLANGITIS, WITH BIOCHEMICAL RESPONSE PLATEAUING AT 6 MONTHS

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Introduction and Objectives: Approximately 40% of patients with primary biliary cholangitis (PBC) exhibit an incomplete biochemical response to ursodeoxycholic acid (UDCA) and require second-line therapy. Fibrates are widely available in Latin America and commonly used off-label in this setting. We aimed to evaluate clinical and biochemical outcomes in PBC patients with incomplete UDCA response treated with different fibrates.

Materials and Methods: This ongoing, retrospective, multicenter cohort study (ALLATIN), sponsored by ALEH, includes PBC patients from several Latin American countries. For this analysis, only patients with incomplete response (based on biochemical criteria or physician judgment), who received fibrates, were included.

Results: Among 1,204 patients, 342 received fibrates; 263 (76.7%) were treated for incomplete UDCA response (93.2% female; mean age: 50 ± 11 years; 76.5% AMA-positive; 19.6% with cirrhosis). Bezafibrate, fenofibrate, and ciprofibrate were used in 72.2%, 7.2%, and 17.9% of cases. Median ALP before fibrates was 1.9xULN (IQR 1.4-3.0); median time from UDCA start to fibrate use was 30 months (IQR 13-69). At 6 months (n = 153), ALP normalization occurred in 42.5%, while 67.3% and 50.3% met Toronto and POISE criteria, respectively; 30.9% achieved deep response (normal ALP and bilirubin <0.6×ULN). At 12 months (n=150), rates remained stable. No differences were observed across fibrate types (p>0.4). Liver transplantation or death occurred in 24 patients (9.1%) over 87 months (IQR 44-135), associated with cirrhosis at diagnosis (OR 9.9; 95%CI 3.3-29.9; p<0.001) and response at 6 months by Toronto criteria (OR 0.31; 95%CI 0.1-0.9; p=0.035). Discontinuation occurred in 13.7%; adverse events included renal injury (n=1), myalgia (n=4), liver injury (n=4), and abdominal pain (n=4).

Conclusions: Fibrates showed high efficacy regardless of agent used. Biochemical response plateaued by 6 months and predicted long-term outcomes. These findings support early assessment and a pragmatic approach to second-line therapy in PBC, independent of fibrate type.

Conflict of interest: Yes, Gilead and ALEH

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#67

FUELING THE FIRE: INFECTIONS TRIGGER AND MALNUTRITION DRIVES SEVERE ACLF IN CIRRHOSIS

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Introduction and Objectives: Cirrhosis-associated immune dysfunction (CAID) increases the risk of infections, which are the most common trigger of acute-on-chronic liver failure (ACLF), a syndrome with high short-term mortality. Malnutrition may further impair immune function and affect the course of ACLF. This study aimed to elucidate the interplay between nutritional status, cirrhosis etiology, infection type, their combined impact on ACLF severity and clinical outcomes.

Materials and Methods: A retrospective analysis of 19 cirrhotic patients with ACLF treated between February 2023 and January 2024 at a tertiary centre was conducted. Data included infection type, nutritional status, cirrhosis etiology, ACLF grade, and in-hospital mortality.

Results: A total of 19 patients (6 females [32%],13 males [68%]), median age of 68 years (range 40–80) were included. Infections were the trigger for ACLF in 13 patients (68%), most commonly respiratory. Fungal or polymicrobial infections were identified in 6 patients

(32%), including Klebsiella pneumoniae, Candida spp., Chlamydia sp., and Mycoplasma pneumoniae. Among patients with ACLF grade 3, 4 of 6 (67%) had fungal or polymicrobial infections. Malnutrition was observed in 9 patients (47%), including 3 of 6 (50%) with ACLF grade ≥2. It was more common in alcoholic cirrhosis (7 of 12; 58%) than in non-alcoholic cases (2 of 7; 29%). In-hospital mortality occurred in 6 patients (32%); 3 deaths (50%) were infection-related and 4 (67%) involved malnourished patients.

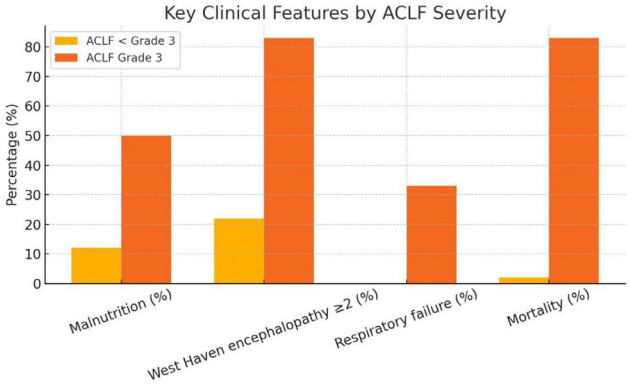
Conclusions: Malnutrition, alcohol-related cirrhosis, fungal or polymicrobial infections were associated with more severe ACLF and poorer outcomes. Early recognition of these risk factors may improve prognostication and guide therapy.

Conflict of interest: None

Comparison of Clinical Characteristics by ACLF Grade

Variable	ACLF grade < 3 (n=13)	ACLF grade 3 (n=6)
Mean age (years)	64.2 ± 11.7	61.7 ± 16.5
Mean bilirubin (µmol/l)	106.2 ± 145.4	313.0 ± 220.0
Mean creatinine (µmol/l)	127.6 ± 99.2	303.3 ± 75.4
Mean INR	13.1 ± 31.8	3.1 ± 1.4
Malnutrition (%)	12%	50%
West Haven encephalopathy ≥2 (%)	22%	83%
Respiratory failure (%)	0%	33%
Mortality (%)	2%	83%

Key clinical features by ACLF severity



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#69

SPLEEN STIFFNESS PREDICTS ESOPHAGEAL VARICES IN LATIN AMERICAN CIRRHOTIC PATIENTS: CLINICAL AND ENDOSCOPIC CORRELATIONS

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Introduction and Objectives: Portal hypertension (PHT) is a major driver of complications and mortality in cirrhosis. Spleen stiffness measurement (SSM) via FibroScan® has emerged as a non-invasive marker of clinically significant PHT (CSPH) and esophageal varices (EV), yet evidence in Latin America is limited. This study aimed to correlate SSM with cirrhosis severity and markers of CSPH, compare its values with those of healthy controls, and determine an optimal cutoff for EV detection.

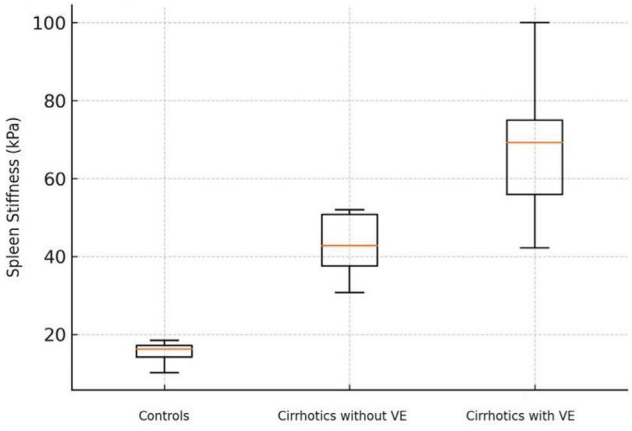
Materials and Methods: Cross-sectional study including 40 cirrhotic patients (β-blocker naïve) and 10 healthy controls. SSM (kPa) was measured with FibroScan® Expert 630. Variables included Child−Pugh class, MELD-Na, D'Amico stage (≥4 = decompensation), platelet count, Doppler ultrasound, and endoscopic confirmation of EV. Statistical analysis included non-parametric tests, ROC curves, Youden's index, and multivariable logistic regression (SSM, platelets, portal vein diameter, Child−Pugh).

Results: Mean age was 56.8 years; 60% male; BMI 28.8 kg/m^2; 40% obese. Median SSM was higher in cirrhotics (64.5 kPa) than in controls (16.0 kPa; $p < 0.001$). Among cirrhotics, higher SSM correlated with Child−Pugh C ($p = 0.004$), MELD-Na ≥ 22 ($p = 0.018$), decompensation ($p = 0.030$), and thrombocytopenia ($p = 0.021$). EV were present in 22 patients (55%), with SSM 67.3 vs 46.0 kPa ($p = 0.004$). AUC was 0.81; optimal cutoff 55 kPa. Only SSM remained independently associated with EV (OR 1.14 per kPa; AUC 0.91).

Conclusions: In this Latin American cohort, SSM ≥ 55 kPa was the most accurate non-invasive predictor of EV and may guide endoscopic screening in clinical practice.

Conflict of interest: None

Comparison of Spleen stiffness measurement (kPa) between controls, cirrhotics without esophageal varices (VE), and cirrhotics with VE.



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#70

VISCERAL FAT AS A KEY DRIVER OF LIVER FIBROSIS IN MASLD: A DXA-BASED ANALYSIS

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Introduction and Objectives: Adiposity is associated with an increased risk of developing metabolic dysfunction-associated steatotic liver disease (MASLD).

Verify the association between liver fibrosis and visceral adiposity in MASLD by Dual-energy X-ray absorptiometry (DXA) method.

Materials and Methods: In a cross-sectional study, assessment of MASLD and significant fibrosis (F≥2) were performed by

ultrassonography and transient elastography, respectively. Dual-energy X-ray absorptiometry (DXA) were performed to assess fat mass index (FMI), visceral adipose tissue (VAT)and android-to-gynoid (A/G) ratio. Data are reported as median (IQR) or n (%); $p < 0.05$ was considered significant

Results: 141 participants were enrolled, 32(22.7%) had hepatic fibrosis. Age was 62.0(55.0–68.0) years, and 118(83.7%) were women. Adiposity parameters were waist-to-height ratio (WHtR) 0.66 (0.59–0.71); abdominal circumference (AC) 105.0(94.4–114.1) cm; fat mass index (FMI) 13.94 (10.50–17.20) kg/m^2; VAT 1784 (1203–2430) cm^3; and A/G 1.13 (1.04–1.23). The prevalence of obesity (BMI ≥ 30 kg/m^2), high FMI (> 14 kg/m^2), and A/G > 1 was 45 (31.9%), 52(36.9%), and 130(92.2%) respectively. The groups with and without fibrosis were compared. Age and sex were similar between groups. Those with fibrosis had significantly higher WHtR, AC, VAT, trunk fat mass, android fat mass, and total fat mass. (Table 1).

Conclusions: This study shows that central and visceral adiposity are significantly linked to liver fibrosis. These findings are measured by DXA, an accurate method, and are supported by simple and cost-effective clinical measures such as WHtR and AC.

Conflict of interest: None

Table1. Clinical and body composition characteristics

Variable	General Population n = 141	Without Fibrosis n = 109	With Fibrosis n = 32	p-value
Age	62.0 (55.0–68.0)	62.0 (55.0–67.0)	65.0 (57.0–70.0)	0.063
Abdominal Circumference	105.0 (94.4–114.1)	103.0 (93.5–113.5)	110.15 (101.7–118.25)	0.029
Waist-to-Height Ratio (WHtR)	0.7 (0.6–0.7)	0.65 (0.59–0.71)	0.69 (0.64–0.75)	0.029
Arm Fat Mass (kg)	3.4 (2.7–4.5)	3.27 (2.49–4.44)	4.0 (3.19–4.75)	0.072
Leg Fat Mass (kg)	9.3 (7.1–12.8)	9.24 (6.41–12.82)	9.65 (8.22–12.60)	0.269
Trunk Fat Mass (kg)	19.2 (14.5–24.3)	18.47 (14.33–23.09)	22.76 (18.88–26.35)	0.020
Fat Mass Ratio (Trunk-to-Leg Fat Mass)	1.2 (1.1–1.4)	1.2 (1.07–1.35)	1.27 (1.07–1.38)	0.806
Android Fat Mass (kg)	3.3 (2.5–4.4)	3.2 (2.4–4.1)	3.84 (3.05–4.67)	0.047
Gynoid Fat Mass (kg)	5.2 (3.8–6.3)	4.85 (3.49–6.35)	5.46 (4.66–6.44)	0.102
Total Fat Mass (kg)	33.5 (25.8–42.0)	32.46 (24.51–41.06)	37.81 (30.91–45.66)	0.043
Android-to-Gynoid Fat Ratio (A/G Ratio)	1.1 (1.0–1.2)	1.13 (1.04–1.24)	1.13 (1.04–1.22)	0.681
Fat Mass Index (FMI) (kg/m^2)	13.9 (10.5–17.2)	13.78 (9.82–16.84)	15.1 (12.73–17.86)	0.104
Visceral Adipose Tissue Volume (cm^3)	1784.0 (1203.0–2430.0)	1504.0 (1171.0–2364.0)	2055.5 (1570.0–2598.25)	0.026
Visceral Adipose Tissue Mass (g)	1683.0 (1135.0–2292.0)	1419.0 (1068.0–2231.0)	1939.0 (1488.75–2451.75)	0.025

Legend: Values are presented as median (interquartile range). Bold p-values indicate statistical significance ($p < 0.05$).

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#71

NON-INVASIVE ASSESSMENT OF STEATOHEPATITIS AND LIVER FIBROSIS IN THE POPULATION AT RISK FOR METABOLIC STEATOTIC LIVER DISEASE

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Introduction and Objectives: The overall global prevalence of metabolic dysfunction-associated steatotic liver disease (MASLD) is 30%, with a higher prevalence in Latin America (44,4%). Metabolic dysfunction-associated steatohepatitis (MASH) is a spectrum of MASLD that can progress to advanced fibrosis, cirrhosis, hepatic decompensation and hepatocellular carcinoma. Non-invasive tests (NITs) can help identify and monitor the progression of MASH, as well as predict the risk of liver-related outcomes.

To evaluate the association between steatohepatitis, liver fibrosis and progression predictors using non-invasive tests in the population at risk for MASLD.

Materials and Methods: A prospective observational study based on the analysis of cross-sectional data from adults in a tertiary hospital who provided informed consent. Inclusion criteria were age between 18 and 75 years and the presence of type 2 diabetes, obesity or metabolic syndrome. The NITs used were FIB 4 index, ultrassonography Fatty Liver Index (FLI), transient elastography and shear wave elastography. Data were analyzed using R and were submitted to the non-parametric Mann-Whitney or Wilcoxon tests. A significant level of 5% was adopted.

Results: This study included 131 patients. Of these, 81 (61.8%) had steatohepatitis (FLI≥ 4), 35 (26.7%) significant fibrosis (F≥ 2) and 17 (12.9%) advanced fibrosis (F≥ 3). Gamma-glutamil transferase (GGT) was the only serum biomarker with a statistically significant correlation with both steatohepatitis (p = 0.01582) and significant fibrosis (p = 0.0217). Data are described in table1.

Conclusions: GGT was significantly associated with the presence of steatohepatitis and significant fibrosis, suggesting that GGT may serve as an additional marker to alert clinicians to the presence of MASH and fibrosis.

Conflict of interest: None

	Total Population	No Fibrosis	Fibrosis	p value
Total	131	96	35	-
Baseline characteristics of the participants				
Age, years (median/IQR)	64 (57 -69.5)	63 (56.7 – 69)	66 (58 – 71)	0.1159
Sex, female (N - %)	108 (82.4)	77 (80.2)	31 (88.5)	0.3932
Alcohol consumption (N - %)				0.0546
Abstaining	79 (60.3)	53 (55.2)	26 (74.2)	
< 10 g/day	36 (27.4)	29 (30.2)	7 (20)	
> 10 g/day	9 (6.8)	9 (9.3)	0	
Anthropometric measurements				
BMI (median - kg/m^2)	31.5	31	33.3	0.1705
Waist circumference (median - cm)	103.25	102	110	0.1234
Hip circumference (median - cm)	105.5	104.5	108.5	0.1737
Waist-to-height ratio	65.14	64.8	66.9	0.185
Laboratory and imaging-based parameters (median/IQR)				
AST (U/L)	21 (18 – 28)	20 (17 – 27)	26 (20 – 35)	0.002392
ALT (U/L)	22 (16 – 29.5)	21 (15 – 27.2)	28 (20 – 42)	0.002341
Platelets (10^3/mm^3)	239 (196.5 – 281)	245 (199.7 – 280.)	221 (174 – 292.5)	0.3625
GGT (U/L)	33 (24 – 55.2)	32 (24 – 43)	53 (27 – 72)	0.0217
Ferritin (ng/mL)	129.87 (71.5 – 255)	139 (78 – 277.4)	97 (56.1 – 156.2)	0.06386
CRP (mg/dL)	0.43 (0.24 – 0.83)	0.43 (0.24 – 0.73)	0.45 (0.28 – 0.87)	0.6687
Fibroscan (kPa)	5.5 (4.7 – 6.8)	5.1 (4.5 – 5.9)	9.1 (7.8 – 13.2)	< 0.001
2D-SWE (kPa)	5.4 (4.4 – 6.8)	5 (4.1 – 5.7)	7.4 (6.6 – 10.1)	< 0.001
US-FLI (kPa)	5.5 (4 – 7)	5 (3 – 7)	6 (4.2 – 7)	0.1274
FIB-4	1.19 (0.87 – 1.69)	1.17 (0.86 – 1.58)	1.34 (0.94 – 2)	0.03868
FIB-4 Classification (N - %)				0.05654
Low FIB-4	73 (55.7)	57 (59.3)	16 (45.7)	
Indeterminate FIB-4	45 (34.3)	33 (34.3)	12 (34.2)	
High FIB-4	13 (9.9)	6 (6.2)	7 (20)	

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#72

IMPACT OF DIRECT-ACTING ANTIVIRALS ON THE FIB-4 INDEX IN PATIENTS WITH CHRONIC HEPATITIS C AND SUSTAINED VIROLOGICAL RESPONSE.

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Introduction and Objectives: Fibrosis regression is associated with broad clinical benefits and remains an important therapeutic goal in patients with advanced fibrosis who achieve a sustained virological response (SVR) to hepatitis C virus (HCV) treatment. Studies conducted in Asia have reported fibrosis regression in 55% to 75% of patients. Currently, there are no published reports from studies conducted in our country.

Evaluate the impact of direct-acting antiviral (DAA) therapy on the Fib-4 index in patients with chronic hepatitis C who achieved a sustained virological response (SVR).

Materials and Methods: Patients were classified into two groups: non-cirrhotic (n=28) and cirrhotic (n=62). Pre- and post-treatment Fib-4 index values were collected and compared. The Wilcoxon signed-rank test, a non-parametric test, was used to compare pre- and post-treatment Fib-4 scores within each group. The Mann-Whitney U test was applied to compare whether the magnitude of change in the Fib-4 score differed between the non-cirrhotic and cirrhotic groups. A p-value of ≤ 0.05 was considered statistically significant.

Results: Both groups experienced a statistically significant reduction in post-treatment Fib-4 scores ($p<0.001$). The magnitude of this reduction was significantly greater in the group of patients with cirrhosis compared to those without cirrhosis ($p = 0.027$). (See Figure 1).

Our study demonstrates that successful DAA therapy leads to a statistically significant reduction in the Fib-4 index in a Mexican cohort of patients with chronic HCV, a finding that is consistent with reports from other regions. This reduction in a key non-invasive marker suggests a regression of liver fibrosis or, at a minimum, a significant decrease in necroinflammatory activity upon viral eradication.

Conclusions: DAA therapy significantly reduces the Fib-4 score in patients with chronic HCV, regardless of the presence of cirrhosis. This demonstrates a favorable impact, thereby improving the prognosis for these patients.

Conflict of interest: None

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#73

NON-INVASIVE ASSESSMENT OF LIVER FIBROSIS IN THE POPULATION WITH TYPE 2 DIABETES AND METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is the most prevalent chronic liver disease worldwide, with a global prevalence of 55,5% among patients with type 2 diabetes (T2D). T2D and obesity are the cardiometabolic risk factors that significantly influence the natural history of MASLD, increasing the risk of fibrosis progression, cirrhosis and hepatocellular carcinoma. Non-invasive tests (NITs) are recommended for fibrosis screening and can help predict the risk of liver-related outcomes in populations at risk for MASLD.

To evaluate the non-invasive tests for detecting liver fibrosis and to assess the association between liver fibrosis and progression predictors in the population with diabetes and MASLD.

Materials and Methods: Prospective, cross-sectional, observational study included adults aged 18-75 with T2D from a tertiary hospital. All participants provided informed consent. Noninvasive assessment of hepatic steatosis and fibrosis were performed using ultrassonography and transient elastography. Data were analyzed using R with the non-parametric Mann-Whitney or Wilcoxon tests, and a significance level of $p < 0.05$ was adopted.

Results: This study included 96 patients. Of these, 62 (64.5%) had steatohepatitis, 29 (30.2%) had significant fibrosis ($F\geq 2$) and 13 (13.5%) had advanced fibrosis ($F\geq 3$) as determined by elastography. Gamma-glutamyl transferase (GGT) was the only serum biomarker that showed a statistically significant correlation with the presence of fibrosis ($p = 0.00997$).

Conclusions: In our study population with diabetes, the most reliable non-invasive predictor of fibrosis, as assessed by elastography, was elevated GGT levels.

Conflict of interest: None

Table 1: Characteristics of the study participants according to fibrosis status

	Total Population (n=96)	No Fibrosis (n=67)	Fibrosis (n=29)	p-value
Baseline characteristics				
Age – years (median/IQR)	65 (58 – 70)	65 (57 – 69)	67 (60 – 71)	0.2186
Sex – women (N – %)	76 – 79.2%	51 – 76.1%	25 – 86.2%	0.3988
Hypertension (N – %)	86 – 89.6%	61 – 91.1%	25 – 86.2%	0.7273
Dyslipidemia (N – %)	75 – 78.1%	52 – 77.6%	23 – 79.3%	1
Obesity (N – %)	51 – 53.1%	31 – 46.3%	20 – 69.0%	0.0597
Alcohol consumption				0.2017
Abstaining (N – %)	62 – 64.6%	40 – 59.7%	22 – 75.9%	
<10g/day (N – %)	23 – 24.0%	16 – 23.9%	7 – 24.1%	
>10g/day (N – %)	6 – 6.3%	6 – 9.0%	NA	
Anthropometric measurements				
BMI (kg/m2)	30.77 (27.36 – 35.34)	29.78 (26.14 – 33.88)	33.68 (29.43 – 37.88)	0.0462
Waist circumference (cm)	105.2 (93.47 – 115.1)	100.8 (93.12 – 113.6)	110.2 (101.2 – 116.9)	0.2158
Hip circumference (cm)	103.55 (95.35 – 113.62)	101.8 (94.5 – 112.8)	108.2 (100.9 – 116.1)	0.0781
Waist-to-height ratio	65.68 (58 – 72.64)	63.41 (57.9 – 71.11)	67.97 (63.72 – 74.29)	0.1588
Laboratory/imaging-based parameters (median/IQR)				
GGT	34 (25 – 61)	31 (24 – 43)	55 (28.75 – 73.25)	0.00997
Ferritin	130 (71.1 – 246.89)	146 (79.8 – 270.5)	97 (64.2 – 156.2)	0.1173
CRP	0.49 (0.27 – 0.93)	0.48 (0.26 – 0.98)	0.53 (0.295 – 0.875)	0.8807
ALT	22.5 (16 – 34.5)	20 (15 – 27.5)	30 (22 – 43)	0.0006
AST	21 (17 – 30.25)	20 (17 – 27)	26 (20 – 35)	0.0046
FIB4	1.19 (0.87 – 1.7)	1.15 (0.87 – 1.65)	1.35 (0.9 – 2.2)	0.08055
FLI	6 (4 – 7)	5 (3 – 7)	6 (5 – 7)	0.1297
Fibroscan	5.7 (4.9 – 7.53)	5.1 (4.65 – 5.9)	9 (7.7 – 13)	<0.001
2D	5.5 (4.35 – 6.95)	5 (4 – 5.7)	7.35 (6.28 – 9.33)	<0.001

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#75

FREQUENCY OF HEPATITIS A ANTIBODIES IN PATIENTS ATTENDING CONSULTATION FOR ABNORMAL LIVER FUNCTION TESTS

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Introduction and Objectives: As of 2024, only 8 out of 25 Latin American countries have incorporated the hepatitis A virus (HAV) vaccine into their national immunization programs. In Peru, there is a widespread belief—both among healthcare professionals and the general population—that, due to poor sanitation and food safety, most adults have been exposed

to HAV and are therefore assumed to be immune, making vaccination seem unnecessary.

To determine the frequency of IgG antibodies against HAV in patients undergoing medical evaluation for altered liver function tests.

Materials and Methods: A cross-sectional descriptive study was conducted in the gastroenterology outpatient clinic of a private institution between January 2023 and January 2025. Adult patients presenting with abnormal liver enzyme tests were included. Foreign nationals and minors were excluded. Informed consent was obtained, and participants were asked about a history of HAV infection and vaccination.

Results: A total of 250 patients were included, with a mean age of 56.4 ± 15.5 years (range: 18–90); 51.2% (n = 128) were male. IgG anti-HAV seropositivity was found in 74.4% of participants. Among those who reported having had hepatitis A, 74% were IgG positive. Additionally, 88.4% of patients did not know their vaccination status.

Conclusions: Although Peru is considered an endemic area for HAV, only 74.4% of adults in our serie showed serologic evidence of immunity. Self-reported infection or vaccination history was not a reliable predictor of HAV immunity.

Conflict of interest: None

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#76

PRESENTATION AND FOLLOW-UP OF POST-TRANSPLANT LYMPHOPROLIFERATIVE DISORDER THROUGH 2005-2022 AT A LIVER TRANSPLANT UNIT IN BOGOTA, COLOMBIA

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Introduction and Objectives: Post- transplant lymphoproliferative disorders (PTLD) are a group of neoplasms developed after transplantation, associated with increased mortality. The incidence of PTLD in liver transplant is 1-5.5%. Risk factors include immunosuppression, Epstein Barr Virus (EBV) mismatch and acute rejection. Clinical presentation is diverse. Treatment options include reduction of immunosuppression (RIS), rituximab and chemotherapy. The objective is to evaluate the incidence and clinical-pathological characteristics of patients with PTLD in our center.

Materials and Methods: Retrospective analysis of orthotopic liver transplant (OLT) patients over 18 years old in La Cardio from January 2005 to December 2022 was collected to identify PTLD patients. After identifying PTLD patients, demographic details, indication for liver transplant, induction and maintenance immunosuppressive regimen, EBV status, acute rejection episodes, histopathological classification of PTLD, chemotherapy used, and outcome were analysed in each case.

Results: Of a total of 617 OLT patients 4 developed PTLD representing a prevalence of 0.6% during a 17-year period of follow-up. Of the patients, 3 (75%) were female. Chronic hepatitis C, chronic hepatitis B, alcoholic hepatitis and autoimmune hepatitis was the etiology of cirrhosis in each of the patients. Median age of the cohort was 44 years. Median time of presentation for PTLD was 52,7 months since liver transplant. More detailed information is in table 1.

Conclusions: This study showed a low prevalence of PTLD among OLT recipients. Most of the patients responded well to RIS and chemotherapy. Further and multi-center studies are needed to provide a better understanding of PTLD in our population.

Conflict of interest: None

Patient	VEB mismatch	Induction	Maintenance	Rejection	Histopathological classification of PTLD	Managment	Outcome
A	No	Bolus of Metil prednisolone	Ciclosporine-Mycophenolate and steroid	Acute moderate rejection at 18 months of transplantation	Monomorphic diffuse large B-cell lymphoma type, phenotype compatible with germinal center subtype	R-CHOP for 4 cycles followed by Rituximab monotherapy and reduction immunosuppression	Complete response with no relapse
B	No	Bolus of Metil prednisolone	Ciclosporine-Mycophenolate and steroid	Never	Monomorphic diffuse large B-cell lymphoma type, phenotype compatible with germinal center subtype	Rituximab monotherapy for 3 cycles followed by R-CHOP for 3 cycles	Progression and death
C	No	Bolus of Metil prednisolone	Tacrolimus-Mycophenolate and steroids	Acute moderate rejection at 69 months of transplantation	Burkitt-type B-cell lymphoma stage IVA with nodal involvement (left cervical adenopathy) and extranodal involvement (Left tonsil	Da-EPOCH-R for 5 cycles followed by 3 cycles of Rituximab monotherapy	Complete response
D	No	Bolus of Metil prednisolone	Ciclosporine-Mycophenolate and steroid	Never	Non-Hodgkin Lymphoma	R-CHOP for 8 cycles followed by 3 cycles of Rituximab monotherapy	Complete response

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#77

LIPOUNITS: A NOVEL UNIT OF MEASUREMENT TO COMMUNICATE THE IMPACT OF DAILY HABITS ON LIVER FAT IN PATIENTS WITH MASLD

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Introduction and Objectives: Fat accumulation in the liver, recently redefined as metabolic dysfunction-associated steatotic liver disease (MASLD), has a high prevalence in Latin America, with projections indicating a continuous rise in cases with significant fibrosis. Weight loss through lifestyle modifications remains the cornerstone of treatment; however, long-term weight maintenance is often unsuccessful, with many patients regaining weight over time. Evidence suggests that sustained adherence to healthy dietary habits and regular physical activity is critical to maintaining weight loss, yet achieving long-term adherence remains a significant challenge.

To develop a simple and educational unit of measurement (lipounits) to translate the impact of lifestyle habits on liver fat content, using the Controlled Attenuation Parameter (CAP) as an objective reference.

Patients and Methods: A cross-sectional study was conducted in patients with suspected MASLD referred for non-invasive staging. A structured weekly lifestyle questionnaire was administered, and liver fat content was assessed using CAP via FibroScan®. A univariate linear regression model was constructed to evaluate the association between lifestyle habits and CAP values. One lipounit was defined as equivalent to a 0.01 dB/m change in CAP.

Results: Forty-nine patients were included; 55% were female, and 89.8% had overweight or obesity. Hypertension and diabetes were present in 40.8% and 18.4% of patients, respectively. Consumption of vegetables, cereals, grains, seafood, adherence to antihypertensive therapy, and 30 minutes of exercise were associated with reduced lipounits. In contrast, intake of soft drinks, processed meats, alcohol, and red meat was associated with increased lipounits.

Conclusions: This tool may enhance adherence to nutritional and physical activity recommendations in patients with MASLD.

Conflict of interest: None

Variable	n = 49
Age (years)	53.84 (11.86)
Height (cm)	164.18 (11.22)
Weight (kg)	82.83 (13.92)
Waist circumference (cm)	102.66 (12.69)
BMI (Body mass Index)	30.45 (4.45)
SBP (Systolic Blood Pressure)	124.84 (15.08)
DBP (Diastolic Blood Pressure)	76.13 (6.45)
Liver stiffness (Kpa)	7.16 (5.94)
Controlled attenuation parameter (dB/m)	280.29 (46.77)
Physical activity sessions of at least 30 minutes/week	2.05 (2.46)
Daily vegetable servings	1.21 (0.73)
Weekly servings of grains	1.71 (1.59)
Daily servings of cereals	0.96 (0.62)
Weekly servings of fish and seafood	1.74 (1.54)
Weekly servings of red meat	1.54 (1.77)
Weekly servings of processed meats	0.61 (1.19)
Daily consumption of carbonated beverages	0.29 (1.13)

Table 1. Baseline characteristics of the patients. Variables are expressed as mean (SD).

lifestyle habits	Coefficient	Lipounits
Taking antihypertensive medication	(-0.057)	-5,7
1 alcohol standard drink	0.18	18
1 serving of vegetables	(-0.026)	-2,6
1 serving of grains	(-0.014)	-1,4
1 serving of cereals	(-0.12)	-12
1 serving of fish or seafood	(-0.019)	-1,9
1 serving of red meat	0.17	17
1 serving of processed meat	0.20	20
1 carbonated beverage	0.30	30
Exercise	(-0.23)	-23

Table 2. Relationship between nutritional and physical activity habits and lipounits.

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#78

STOP PPIS - NO REDUCTION IN BLEEDING OR MORTALITY AFTER ENDOSCOPIC BANDING LIGATION FOR ESOPHAGEAL VARICES IN CIRRHOTICS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Introduction and Objectives: Proton pump inhibitors (PPIs) are frequently prescribed to reduce bleeding and mortality after endoscopic band ligation (EBL) of esophageal varices in cirrhotic patients. However, the clinical benefit remains uncertain. This meta-analysis aims to determine whether PPI therapy reduces bleeding and mortality within 8 weeks following EBL of esophageal varices in cirrhotic patients, compared to non-use.

Materials and Methods: The search was conducted in PubMed, Web of Science and CENTRAL in January 2025. Randomized controlled trials (RCTs) comparing PPI use after EBL in cirrhotic patients versus non-use were included. The primary outcome was bleeding, and,the secondary, was mortality, both within 8 weeks. Two independently students extracted data and assessed risk of bias, using the Cochrane Risk of Bias tool (RoB 2). Relative risks (RRs) with 95% CI were calculated by random-effects model.

Results: Four RCTs including 445 cirrhotic patients who underwent EBL were included. All studies contributed to the primary outcome and three of them, including 268 patients, to the secondary outcome. In pooled analysis, PPI use was not associated with a reduced risk of bleeding within 8 weeks (RR 0.71; 95% CI: 0.39 - 1.30; $I^2 = 0.0\%$), or mortality (RR 0.75; 95% CI: 0.23 - 2.53; $I^2 = 0.0\%$).

Conclusions: This meta-analysis indicates that PPI therapy after EBL for esophageal varices in cirrhotic patients has no evidence of reducing risk of bleeding or death compared to non-use and discourages the indiscriminate use of PPIs when no proven benefit exists.

Conflict of interest: None

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#79

HIGH WAITING LIST MORTALITY AMONG LIVER TRANSPLANT CANDIDATES WITH ALCOHOL-RELATED LIVER DISEASE: A 10-YEAR COHORT FROM A BRAZILIAN TERTIARY CENTER

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Introduction and Objectives: Alcohol-related liver disease (ALD) is a leading cause of cirrhosis-related mortality and a common indication for liver transplantation. This study aimed to assess the impact and characteristics of ALD in liver transplant candidates at a tertiary center in Brazil.

Patients and Methods: This retrospective study included the medical records of patients listed for liver transplantation between 2009 and 2019 at a tertiary hospital. We evaluated the proportion of

ALD as an indication, clinical and epidemiological profiles, waiting list mortality, and patterns of alcohol consumption and abstinence in patients with ALD.

Results: Among the 583 patients, 243 (41.7%) had ALD. This etiology was the most frequent among both non-transplanted (45.5%) and transplanted (38.4%) patients. In the transplanted group, ALD patients were predominantly male and smokers (p<0.001). The overall waiting list mortality rate was 70.2%, with ALD accounting for 43% of the deaths. Among the 118 transplanted patients with an alcohol-related component, data on alcohol consumption were available for 92. The mean daily alcohol intake was 133.1 g, with a mean abstinence duration of 4.9 years before transplantation.

Conclusions: ALD was the most frequent indication for liver transplantation in this cohort and was associated with high mortality on the waiting list. These findings highlight the need for the early identification and management of patients with harmful alcohol use.

Conflict of interest: None

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#80

ENCEPHALAPP STROOP TO DETECT COVERT HEPATIC ENCEPHALOPATHY IN PATIENTS WITH COMPENSATED CIRRHOSIS

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Introduction and Objectives: Covert hepatic encephalopathy (CHE) is a common complication in patients with compensated cirrhosis, associated with subtle cognitive impairment and a worse prognosis. The EncephalApp Stroop is a digital tool that facilitates its identification.

To evaluate the diagnostic capacity of the EncephalApp Stroop to identify CHE in patients with compensated cirrhosis

Materials and Methods: A diagnostic evaluation study was conducted in patients with compensated cirrhosis treated at the Institute of Gastroenterology in Havana, Cuba, between March 2023 and December 2024. All participants completed the EncephalApp Stroop and the Psychometric Hepatic Encephalopathy Score (PHES). Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were determined. The discriminatory capacity of the test was assessed using ROC curve analysis, considering a cutoff point of >190 seconds in the "on" time metric plus "off" time, and the PHES result as the gold standard.

Results: Seventy patients of both sexes were included, with a predominance of viral etiology (74.3%). The prevalence of EHE was 38.6%. The EncephalApp Stroop showed a sensitivity of 95.2% (95% CI: 77.3% to 99.2%) and specificity of 85.7% (95% CI: 73.3% to 92.9%), PPV of 74.1% (95% CI: 55.3% to 86.8%) and NPV of 97.7% (95% CI: 87.9% to 99.6%) for the detection of HSE, with an area under the ROC curve of 0.905 (95% CI: 0.826-0.984).

Conclusions: The EncephalApp Stroop is a valid, accessible, and efficient diagnostic test for identifying EHE in compensated cirrhosis, with high performance compared to PHES as the gold standard. Its implementation can optimize early detection and clinical management.

Conflict of interest: None

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#82

PREVALENCE OF COVERT HEPATIC ENCEPHALOPATHY IN PATIENTS WITH COMPENSATED LIVER CIRRHOSIS

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Introduction and Objectives: Covert hepatic encephalopathy (CHE) is a complication that affects the quality of life and prognosis of cirrhotic patients. It is identified through appropriate neuropsychological tests. Objectives: To determine the prevalence of CHE in patients with compensated liver cirrhosis using the Psychometric Hepatic Encephalopathy Score (PHES) and its association with selected clinical factors.

Materials and Methods: A descriptive, cross-sectional study was conducted at the Institute of Gastroenterology in Havana, Cuba, between March 2023 and December 2024. Sixty-five patients with defined selection criteria were included. The prevalence of CHE was calculated according to the total PHES, using normality tables for the Cuban population. PHES scores and laboratory parameters were compared, and the association with sex, age, education, and etiology was explored between the groups with and without EHE.

Results: The prevalence of EHE was 32.3% (n=21). Differences were found between groups with and without EHE in the total PHES (p<0.001) and in each of its components. No association was demonstrated between age, sex, educational level, and etiology of cirrhosis with EHE, nor was there statistical significance between ALAT (p=0.68), ASAT (p=0.90), albumin (p=0.65), and platelet count (p=0.63). Age >60 years, male sex, viral etiology, low educational level, and liver function did not influence the diagnosis of EHE.

Conclusions: The PHES is an objective tool that allowed the identification of EHE in the context studied, which is relevant for the early management of compensated cirrhosis.

Conflict of interest: None

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#86

LIVER TRANSPLANTATION FOR HEPATOCELLULAR CARCINOMA: IMPLICATIONS OF EXPANDING AGE LIMITS IN LOW-DONATION SETTINGS IN LATIN AMERICA

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Introduction and Objectives: In Costa Rica, liver transplantation (LT) for hepatocellular carcinoma (HCC) is legally restricted to patients under 65 years. This limits curative options and may favor patients receiving exception MELD points. The country's average liver

donation rate remains low, at 5.4 donors per million population per year, further limiting access.

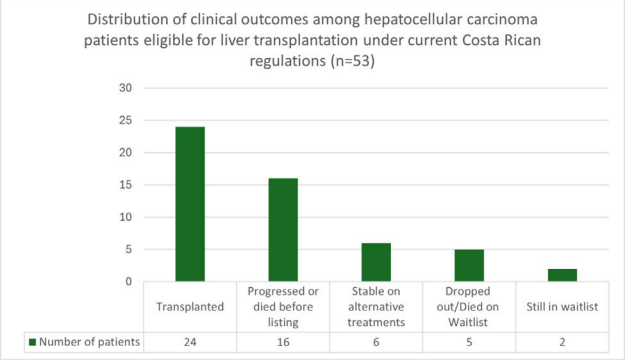
Materials and Methods: We assessed transplant eligibility, bridging therapies, and outcomes in HCC patients at a tertiary center. Eligibility was defined as age <65, meeting UCSF criteria, and having no contraindications. We modeled the impact of raising the age limit to <70 years.

Results: Of 260 patients, 52 (20%) met transplant criteria; 86.5% received bridging therapy (TACE 27, ablation 18, resection 2). One additional patient was downstaged to eligibility. Among 53 total candidates, 30.2% progressed or died before listing, 11.3% remained stable on alternative treatments, 45% were transplanted, and 9.4% died or dropped out while on the waitlist. Mean wait time was 148.1 days (SD 93.5). Expanding the age limit to <70 years would increase eligibility by 49%, adding 27 candidates. However, this may disadvantage other patients with high functional MELD scores, as those with HCC receive exception points after three months of evaluation.

Conclusions: Raising the age threshold for LT would expand access for older HCC patients but may exacerbate inequities in organ allocation due to low donation rates and MELD exception prioritization. Policy reform must be accompanied by increased organ procurement efforts and ethical safeguards to ensure equitable access in low-donation settings such as Costa Rica.

Conflict of interest: None

Outcomes of Liver Transplant Candidates (n = 53). Distribution of clinical outcomes among hepatocellular carcinoma patients eligible for liver transplantation under current Costa Rican regulations (age <65, UCSF criteria). Outcomes are shown as absolute numbers in a column chart format. A total of 45% were transplanted, while 30.2% progressed or died before listing. The remainder either remained stable on alternative treatments, were still waiting, or dropped out.



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#87

CHARACTERIZATION AND DESCRIPTION OF METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE ASSESSED BY HEPATIC ELASTOGRAPHY IN A CENTER IN BOGOTA

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is the most prevalent liver disease globally, with 25–30% of patients progressing to fibrosis. It is associated with complications such as cirrhosis, liver failure, and liver cancer. Transient liver elastography (TLE) is a non-invasive, reliable tool to assess hepatic steatosis and fibrosis, with lower risk than biopsy. This study aims to characterize patients with MASLD at Fundación Cardioinfantil by analyzing demographic and clinical factors, and the grade of liver steatosis and fibrosis using TLE

Materials and Methods: Metabolic dysfunction-associated steatotic liver disease (MASLD) is the most prevalent liver disease globally, with 25 –30% of patients progressing to fibrosis. It is associated with complications such as cirrhosis, liver failure, and liver cancer. Transient liver elastography (TLE) is a non-invasive, reliable tool to assess hepatic steatosis and fibrosis, with lower risk than biopsy. This study aims to characterize patients with MASLD at Fundación Cardioinfantil by analyzing demographic and clinical factors, and the grade of liver steatosis and fibrosis using TLE

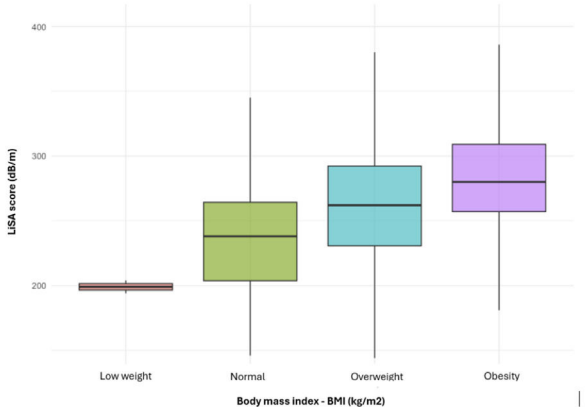
Results: In the interim analysis of 899 patients, elastography results met international quality standards (IQR/M 18.3). The average BMI was 27.2 kg/m^2, and common comorbidities included hypertension and diabetes. Steatosis was typically moderate (LiSA S2), with a higher LiSA score in those with higher BMI (graphic 1). Fibrosis was absent in 78.3% of cases, while 21.7% showed progression (table 1) of this population 69.9% have overweight or obesity.

Conclusions: MASLD is primarily associated with metabolic diseases. This study found that higher BMI is linked to an increased risk of steatosis, and higher levels of fibrosis were seen in older patients (with no linear relationship). These patients should be prioritized for early screening and treatment, reducing complications and overall morbidity and mortality.

Conflict of interest: None

Distribution of fat attenuation coefficient (LiSA score) according to BMI categories

Graphic 1. Distribution of fat attenuation coefficient (LiSA score) according to BMI categories



Fibrosis characteristics obtained by liver elastography in the study population (N = 899)	
Fibrosis Stage	Number of Patients (%)
F0-F1	704 (78.3%)
F2	105 (11.7%)
F2-F3	31 (3.4%)
F3-F4	29 (3.2%)
F4	30 (3.3%)

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#88

CLINICAL CHARACTERIZATION OF HCC IN A SILENT REGION: REAL-WORLD DATA FROM A PROSPECTIVE COHORT IN CENTRAL AMERICA

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Introduction and Objectives: Hepatocellular carcinoma (HCC) is a leading cause of cancer-related mortality worldwide. However, clinical data from Central America and the Caribbean are scarce, limiting the development of region-specific public health strategies and clinical guidelines.

Describe the clinical and demographic characteristics of patients diagnosed with HCC, providing the first prospective dataset from this underrepresented region.

Materials and Methods: This observational cohort study included all patients diagnosed with or referred for HCC between September 2018 and June 2024. Clinical data were extracted from medical records, anonymized, and recorded electronically. Patients with incomplete or unverifiable data were excluded.

Results: A total of 260 patients were included (mean age 67 years; 38.5% women). Cirrhosis was present in 92.7%, and 95% met at least one metabolic syndrome (MS) criterion; 54.6% met full MS criteria. MASLD or alcohol-related liver disease accounted for 85% of underlying etiologies. Nineteen patients (7.3%) had non-cirrhotic HCC, predominantly MASLD-related. HCC diagnoses increased by 90.5% between 2017–2018 and 2023–2024. Screening detected 43.5% of cases. Ultrasound was the first imaging modality in 90.4%, with an average delay of 70 days to confirmatory imaging. AFP levels ≥20 IU/mL and ≥400 IU/mL were seen in 42.1% and 21.2%, respectively. At diagnosis, 60.6% were Child-Pugh A and 66.9% had MELD <15. BCLC staging: 0 (1.9%), A (48.8%), B (16.9%), C (20.4%), D (11.9%).

Conclusions: This first prospective characterization of HCC in Central America shows high rates of metabolic dysfunction and cirrhosis. Increasing incidence and diagnostic delays highlight the urgent need for structured screening and better resource allocation.

Conflict of interest: None

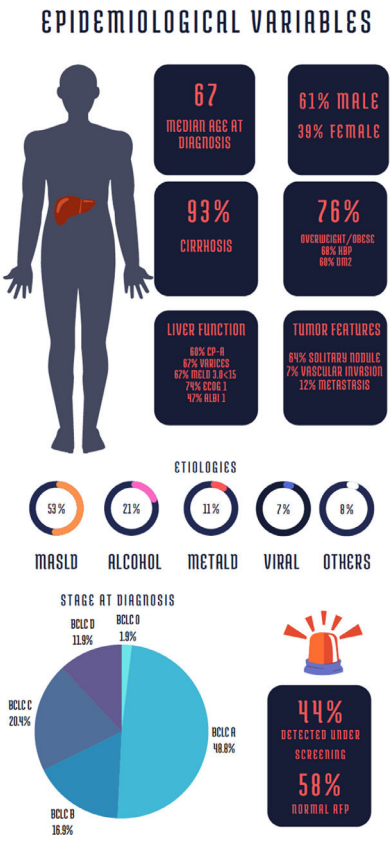

Figure 1: Clinical and demographic characteristics of patients at diagnosis (MASLD: metabolic dysfunction-associated steatosis liver disease. MetALD metabolic and alcohol related/associated liver disease, MELD: Model for End-stage Liver Disease score; ECOG-PS: Eastern Cooperative Oncology Group Performance Status; DM2: Type 2 diabetes mellitus, ALBI: Albumin-Bilirubin, HBP: High blood pressur

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#89

VIRULENCE–HOST GENE INTERACTION OF H. PYLORI CAGA AND NOD1 ELEVATES NON-INVASIVE FIBROSIS MARKERS IN MASLD

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Introduction and Objectives: Recent studies have suggested an association between H. pylori (Hp) active gastric infection and metabolic dysfunction associated steatotic liver disease (MASLD We evaluated whether the H. pylori virulence gene cagA and the host sensor NOD1 (rs2075820) correlate with non-invasive markers of liver injury and fibrosis in patients with MASLD.

Patients / Materials and Methods: In a prospective study (2021–2024, northeast Argentina), 494 adults with Rome IV functional dyspepsia underwent gastroscopy. Biochemical, clinical parameters,

ultrasound, FIB-4 score, liver stiffness measurement (LSM) by vibration-controlled transient elastography, gastric biopsies, and H. pylori cagA and NOD1 single nucleotide polymorphism (rs2075820) were evaluated.Associations were analysed with χ^2, ANOVA/Tukey and multivariable logistic regression (*p<0.05).

Results: Participants were 60 % women; mean age 49 years; BMI 27.9 kg/m^2. MASLD was present in 209 (42 %) and Hp in 252 (51 %). Hp positivity coincided with higher BMI and MASLD prevalence (52 % vs 32 %). Among MASLD subgroup, Hp +/cagA + infection was associated with higher AST (25 ± 11 vs 33 ± 14 U/L), FIB-4 (1.0 ± 0.5 vs 1.5 ± 0.8), and LSM (5.7 ± 2.8 vs 7.8 ± 5.2 kPa) compared with Hp-negative patients ($p < 0.05$ for all), without significant differences in ALT or GGT.The combined cagA +/NOD1-GG genotype displayed the greatest FIB-4 (1.5) and LSM (8.5 kPa); 41 % of carriers exceeded the ≥8 kPa threshold for advanced fibrosis, yielding an an odds ratio (OR) of 3.99 (95 % CI 1.6–10.0; p = 0.003), which remained significant after adjustment for metabolic comorbidities (adjusted OR 4.98; 95 % CI 1.9 –13.5).

Conclusions: In dyspeptic adults with MASLD, Hp cagA carriage is linked to worse non-invasive liver indices. The cagA +/NOD1-GG genotype independently predicts significant fibrosis, underscoring a bacterial–host genetic synergy that may accelerate MASLD progression.

Conflict of interest: Yes, Fundacion HA Barcelo

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#90

CONCORDANCE BETWEEN EXPERT GASTROENTEROLOGISTS AND ARTIFICIAL INTELLIGENCE TOOLS IN SOLVING HEPATOLOGY CLINICAL CASES

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Rogelio Zapata Arenas[2],
Scherezada María Isabel Mejía Loza[1],
Juanita Pérez Escobar[1],
María Fátima Higuera de la Tijera[2],
Elías Artemio San Vicente Parada[1],
Raquel Yazmín López Pérez[2],
Felipe Zamarripa Dorsey[3],
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Introduction and Objectives: Evidence regarding the utility of artificial intelligences (AI) for the diagnosis of clinical cases in gastroenterology is limited, and is even scarcer in hepatology.

Determine the concordance between the responses of various AI models and those of specialist physicians in the resolution of hepatology clinical cases.

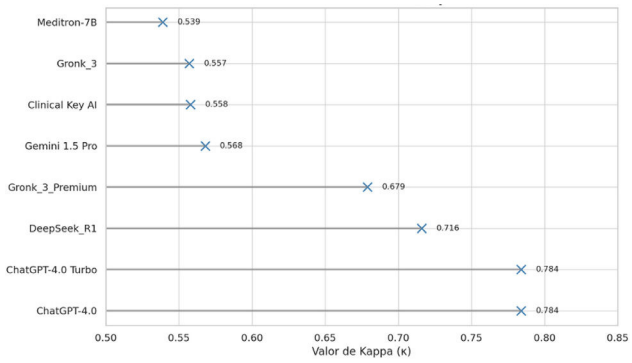
Materials and Methods: This was a clinical, observational, analytical, and prospective study. The assessment instrument comprised six hepatology clinical cases, each featuring five questions. A panel of eight experts from different institutions was convened; and their individual responses were subjected to calculation of the kappa coefficient (κ) and Cronbach's alpha. Items that failed to meet the validation threshold (≥ 80 % agreement and $\kappa \geq 0.6$) were reviewed through iterative rounds of a modified Delphi method. Finally, κ was calculated to evaluate concordance between responses generated by the AI models and the expert consensus.

Results: The expert consensus demonstrated a high overall concordance ($\kappa = 0.901$; 95 % CI [0.860, 0.943]; z = 61.57; $p < 0.001$). Individual model concordance ranged from moderate to substantial, with κ values between 0.539 (Meditron-7B) and 0.784 (ChatGPT-4.0 and ChatGPT-4.0 Turbo), all statistically significant. In terms of the percentage of correct responses, the highest performing models were ChatGPT-4.0, ChatGPT-4.0 Turbo, and Deepseek-R1 (figure 1).

Conclusions: A moderate to substantial concordance was observed between diagnoses generated by different AI models and expert judgment in hepatology clinical cases, although variations were noted among the evaluated systems.

Conflict of interest: None

Figure 1



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#91

HIGH RATE OF EARLY ALP NORMALIZATION WITH UDCA–BEZAFIBRATE COMBINATION THERAPY IN TREATMENT-NAÏVE PRIMARY BILIARY CHOLANGITIS: PRELIMINARY RESULTS

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Introduction and Objectives: Six-month alkaline phosphatase (ALP) normalisation predicts one-year response and survival in primary biliary cholangitis (PBC). Bezafibrate (BZF) benefits incomplete ursodeoxycholic-acid (UDCA) responders. We therefore assessed ALP normalization at six-month with UDCA alone versus UDCA+BZF at two different doses.

Materials and Methods: in an open-label trial (January 2022 –2025) antimitochondrial-antibody–positive, non-cirrhotic PBC patients were randomised 2 : 2 : 1 to UDCA 13–15 mg kg^{-1} day^{-1} (n=21), UDCA+BZF 400 mg (n=23) or UDCA+BZF 800 mg (n=8). Liver tests were obtained monthly for six months. The primary end point was ALP ≤ 1 × ULN at month 6; secondary end points were changes in other enzymes, pruritus and safety.

Results: Fifty-two patients (94 % female, 57 ± 11 years, BMI 25 ± 6 kg m^{-2}, histological stages 1(n23)/2(n16/3(n13) completed follow-up. ALP normalised in 36 % with UDCA, 78 % with UDCA +BZF 400 mg and 100 % with UDCA+BZF 800 mg ($\chi^2 < 0.01$). Mean ALP (× ULN) at six months was 1.5±0.7 (UDCA), 0.98±0.2 (UDCA+BZF 400 mg), and 0.8±0.2 (UDCA+BZF 800 mg) (ANOVA p<0.001). Linear mixed-effects analysis showed significant time-dependent ALP declines in all groups; BZF intensified these monthly slopes ($\beta = -0.34$ for 400 mg, −0.44 for 800 mg vs UDCA, both Tukey-adjusted p<0.01). Pruritus persisted in 14 % of UDCA recipients but in none on BZF, and renal function and creatine kinase were unchanged across groups.

Conclusions: Up-front UDCA+BZF achieves dose-dependent, near-universal six-month ALP normalisation and accelerates biochemical improvement without early safety concerns. These interim data support initiating combination therapy at diagnosis, particularly in symptomatic PBC.

Conflict of interest: None

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#97

STEATOTIC HEPATOCYTES SHOWN REDUCED CYP450 EXPRESSION AND IN VITRO RESISTANCE TO DRUG-INDUCED TOXICITYSTEATOTIC HEPATOCYTES SHOWN REDUCED CYP450 EXPRESSION AND IN VITRO RESISTANCE TO DRUG-INDUCED TOXICITY

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD), has been associated with dysregulation of CYP450 enzymes, resulting in an altered drug-metabolizing profile. It has been suggested that lipid droplets (LDs) might influence CYP450 expression and function. Diclofenac (DF) and acetaminophen (APAP) are common analgesics that can cause drug-induced liver injury (DILI), due to their toxic metabolites produced by CYP450 dependent reactions. The aim of this study was to characterize the effect of lipid droplets present in hepatocytes on drug-induced toxicity.

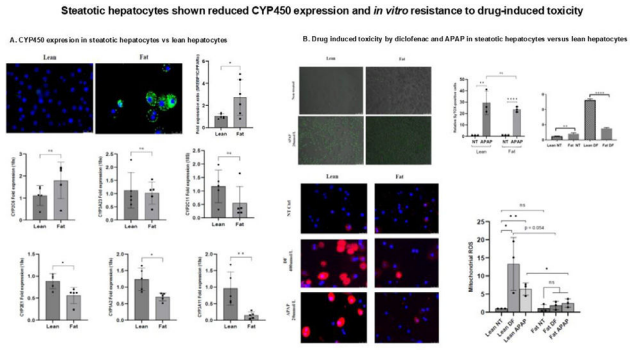
Materials and Methods: Steatotic Zucker rat hepatocytes (Fa/Fa) (chronic lipid accumulation) or free fatty acid (FFA)-treated Wistar rat hepatocytes (acute lipid accumulation) were treated with DF (400 μmol/L) or APAP (20 mmol/L). Caspase-3 activity, necrotic cell death and mitochondrial ROS production were determined. mRNA levels of different CYP450 related with diclofenac and APAP metabolism, were quantified by RT-qPCR. Lipid droplets quantity and distribution were assessed by BODIPY staining. To compare our results with the human data available we performed in silico analysis using tanscriptomic databases from patients with hepatic steatosis.

Results: Decreased expression of CYP2E1 and CYP3A11(CYP3A4 human homologue) was observed in steatotic Zucker rat hepatocytes. No regulation of CYP450 expression was observed in FFA-treated Wistar hepatocytes (acute lipid accumulation). Lipid droplets reduced mitochondrial ROS production and prevented apoptotic and necrotic cell death induced by DF and APAP, respectively. Changes in lipid droplet distribution were also observed in DF and APAP treated hepatocytes. In Silico analysis using transcriptomic human data available are now in progress to compare these findings and their relevance in the context of MASLD.

Conclusions: Lipid droplets are associated with protective mechanisms during drug-induced toxicity due to the downregulation of CYP450 gene expression and prevention of ROS production. Further studies are needed to understand the exact mechanisms and molecular targets regulated by LDs that influence drug-induced toxicity.

Conflict of interest: None

Graphical Abstract_Steatotic hepatocytes shown reduced CYP450 expression and in vitro resistance to drug-induced toxicity



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#99

PROJECTED CLINICAL AND ECONOMIC BURDEN OF METABOLIC DYSFUNCTION–ASSOCIATED STEATOHEPATITIS IN BRAZIL: A 20-YEAR FORECAST ACROSS TYPE 2 DIABETES STATUS

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Introduction and Objectives: Type 2 diabetes (T2D) is an important risk factor for metabolic dysfunction–associated steatohepatitis (MASH) and its complications.

Explore long-term impact economic burden of MASH among adults by T2D status.

Patients and Methods: Markov model simulated the natural history of patients with MASH in Brazil over a 20-year horizon (2021–2040).

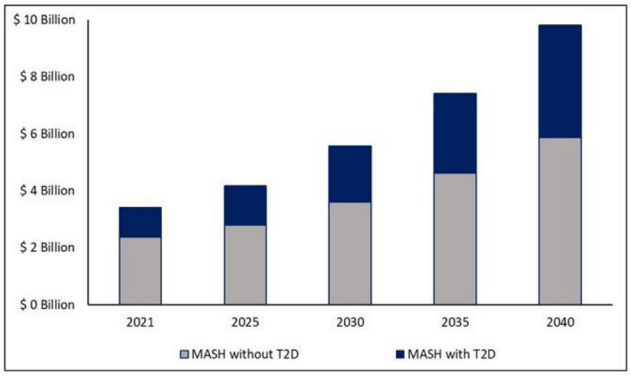
Transition probabilities were calibrated to align with Brazil's national data for cirrhosis, hepatocellular carcinoma (HCC), liver transplantation (LT), obesity, and T2D. The model incorporated competing mortality risks (liver-related, cardiovascular, and other causes). Baseline estimates of direct medical costs (outpatient care, diagnostics, hospitalizations, procedures, medications) were estimated by disease stage using national sources, including the Fiocruz Observatory database and Brazil's health system profile. Costs are reported in 2020 USD, adjusted using IMF inflation projections.

Results: From 2021 to 2040, MASH prevalence among adults in Brazil is projected to rise from 7.19% to 7.52%. In the general population, the prevalence of MASH-related cirrhosis will increase from 0.63% to 0.99%, while MASH-related HCC, -LT and -liver deaths will increase from 0.50 to 1.02, 0.17 to 0.38 and 10.08 to 13.46 per 100,000. The proportion of MASH cases with T2D will increase from 25.3% to 30.8%. Among MASH-cirrhosis patients, this proportion will increase from 23.9% to 27.8%. Annual MASH-related direct medical costs will rise from $3.41 billion in 2021 to $9.81 billion by 2040, with the proportion attributable to T2D increasing from 30.7% to 40.1% (Figure).

Conclusions: Clinical and economic burden of MASH in Brazil is expected to rise with increasing share attributable to T2D.

Conflict of interest: None

Figure



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#103

STUDY OF METABOLIC DYSFUNCTION ASSOCIATED WITH ESTABLISHED LIVER DISEASE USING FLI AND HSI INDICES IN THE ADULT POPULATION OF CUQUÍO, JALISCO, MEXICO

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Introduction and Objectives: The frequency of fatty liver disease is very high in Mexico. However, its prevalence is unknown in many regions of the country, which is why in this study we analyzed a region of the state of Jalisco

How can hepatic steatosis indices be used to detect metabolic-associated fatty liver disease (MAFLD) in adults from Cuquío, Jalisco, considering their risk factors?

Materials and Methods: Descriptive study conducted in the population of Cuquio, Jalisco, through open invitation. A total of 235 individuals participated, of whom 71 met the inclusion criteria. Participants signed an informed consent form in accordance with the Declaration of Helsinki. During medical consultation, anthropometric measurements were taken and blood samples were collected for comprehensive biochemical analysis using an automated system. The FLI and HSI indices were calculated. Multivariate and cluster statistical analyses were performed using StarGraphics and SPSS software.

Results: A total of 81.7% were women, mean age of 47.4 ± 12.5 years, 12.5% were diabetic. The components of the FLI were mainly associated with liver enzymes and lipid profile, while the HSI was linked to central adiposity and low HDL levels. Factor and cluster analyses allowed the identification of three metabolic profiles: high hepatic risk (dyslipidemia and cellular damage), low risk (good metabolic control), and intermediate risk, possibly functional or cholestatic.

Conclusions: These findings support that the FLI is more closely related to general lipid metabolism, whereas the HSI more accurately reflects central fat accumulation and functional liver alterations. The results underscore the importance of using multivariate approaches to characterize complex diseases such as MAFLD.

Conflict of interest: None

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#105

HIGH PREVALENCE OF DILI/HILI IN A CENTER PARTICIPATING IN A MULTICENTER STUDY FOR DIAGNOSING ACUTE HEPATITIS IN BRAZIL

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Introduction and Objectives: Hepatotoxicity caused by drugs and herbs (DILI/HILI) can cause mild to severe lesions. The diagnosis is based on exclusion, and it is essential to investigate the use of drugs and herbal remedies.

To assess the prevalence of DILI/HILI in a multicenter study on acute hepatitis.

Materials and Methods: A cross-sectional, descriptive, and analytical study conducted at a university hospital in Bahia, as part of a national multicenter screening project for acute hepatitis. Patients with clinical suspicion of acute hepatitis were included.

Results: The sample included 50 patients: 17 (34%) with DILI/HILI and 33 (66%) with other etiologies. These included: autoimmune hepatitis 4 (8%), cholestatic syndrome 1(2%), late transplant rejection 1 (2%), Chikungunya and Dengue 2(4%), alcoholic hepatitis 1(2%), Caroli syndrome 1 (2%), and biliary cholangiopathy 1(2%). Viral etiologies: hepatitis B 6 (12%), including one case of chronic HBV reactivated by herbal use, hepatitis C 3 (6%), Epstein-Barr virus IgM 5 (10%), and

Cytomegalovirus IgM 3 (6%), with one CMV case in the DILI/HILI group. Thirteen cases (26%) had undefined or non-hepatic causes. Two groups were stratified: Group 1 with DILI/HILI (17) and Group 2 without DILI/HILI (33). Median values were calculated for ALT, AST, ALP, GGT, and bilirubin total. Group 1: AST 257 U/L, ALT 313 U/L, GGT 696 U/L, ALP 234 U/L, BT 7.6 mg/dL. Group 2: AST 162 U/L, ALT 109 U/L, GGT 216 U/L, ALP 172 U/L, TB 4.9 mg/dL. AST, ALT, and GGT were higher in the DILI/HILI group. No statistical difference in ALP and BT (p=0.5120; p=0.8057).

Conclusions: DILI/HILI cases showed a more prominent biochemical profile, suggesting more severe liver injury. Careful investigation of drug and herbal use is essential in the evaluation of acute hepatitis.

Conflict of interest: None

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#106

TRANSPLANT-FREE SURVIVAL AMONG PATIENTS WITH HEPATOCELLULAR CARCINOMA MANAGED AT A TERTIARY REFERRAL HOSPITAL IN PERU

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Introduction and Objectives: Peru has one of the highest liver cancer rates in South America, yet limited access to transplantation makes evaluating prognosis through alternative treatments essential. We aimed to determine transplant-free survival in patients with hepatocellular carcinoma (HCC) treated at "Hospital Nacional Edgardo Rebagliati Martins" (HNERM), Lima, Peru.

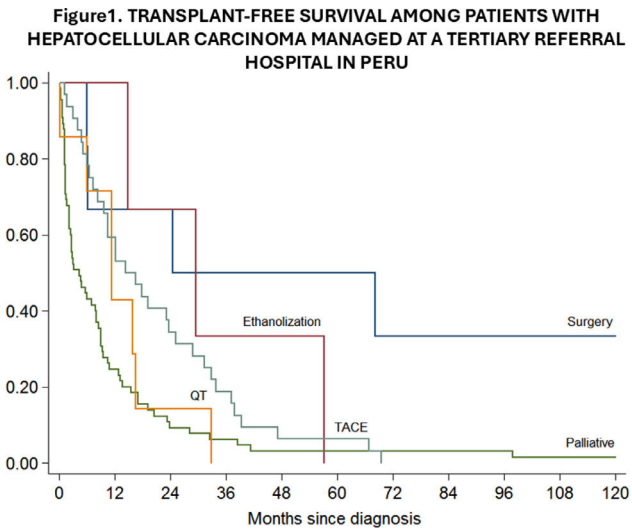
Materials and Methods: Retrospective cohort study using data from patients hospitalized in the hepatology unit of HNERM (2012-2014). We included adults diagnosed with HCC by CT, MRI, or biopsy; those with prior liver transplants or lost to follow-up were excluded. We reviewed clinical records and the national death registry over 120 months. Transplant-free survival was estimated using Kaplan–Meier, and survival differences by cirrhosis, BCLC-stage, and treatment were assessed using the Mantel–Haenszel method (α=0.05).

Results: A total of 112 patients with HCC were included (median age 68 [IQR:60-75years]; 51.8% female). The leading etiology of HCC was viral (HBV 31.3%, HCV 15.2%, co-infection 4.5%), followed by NAFLD. 87.5% had cirrhosis, Child-Pugh B. Participants without cirrhosis were significantly younger (p<0.01). Overall, 57.1% received palliative care, followed by TACE (28.6%), chemotherapy (6.3%), surgery (5.4%), and ethanol injection (2.7%). Transplant-free survival rates were 59.8% at 6 months and 1.8% at 120 months. Median survival was 8.0 months with cirrhosis and 11.3 without, with no significant difference. Surgical treatment showed better survival outcomes (p<0.01) (figure1). Among patients with cirrhosis, 60-month survival significantly varied by BCLC stage, favoring earlier stages (p<0.01)

Conclusions: Early diagnosis regardless of cirrhosis status and broader treatment availability are crucial to improve HCC survival in Peru.

Conflict of interest: None

Transplant-free survival among patients with hepatocellular carcinoma managed at a tertiary referral hospital in Peru



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#107

PREDICTIVE FACTORS OF RESPONSE TO URSODEOXYCHOLIC ACID TREATMENT IN MEXICAN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS

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Introduction and Objectives: Non-responders (NR) to ursodeoxycholic acid (UDCA) are at risk of disease progression. The aim was to identify risk factors associated with treatment response (improvement or failure) to UDCA in primary biliary cholangitis (PBC).

Materials and Methods: A case-control study nested within a cohort. Treatment response with UDCA was evaluated with the Barcelona criteria. We compared variables between responders (R) and NR. To evaluate risk factors we performed uni and multivariate logistic regression analyses. A P-value < 0.01 was considered significant.

Results: 329 patients with PBC from 5 tertiary-care centers in Mexico, 95.4% women, mean age 52.5±10.9 years. All received UDCA (13-15 mg/kg/day) and reported treatment adherence; 159 (48.3%) NR. In a sample of 119 patients with complete data for analysis, 98.3% women, mean age 49.9±11.4 years, 49 (41.2%) NR. Univariate analysis: albumin 3.5 range=2.0-4.8 vs. 4.0 range=2.6-4.8 mg/dL; and platelet count 118 range=52-518 vs. 200 78-436 cell/10^9/L were lower in

NR (P<0.0001). Bilirubin 1.9 range=1.0-6.4 vs. 1.6 range=1.0-3.0 mg/dL (P<0.0001), and alkaline phosphatase 666 range=143-1445 vs. 480 range=170-1556 IU/L (P=0.01) were higher in NR. NR had a higher proportion of advanced fibrosis/cirrhosis 83.7% vs. 25.7%; P<0.0001; OR=14.8, 95%CI=5.8-37.4; obesity 81.6% vs.31.4%; P<0.0001; OR=9.7, 95%CI=4.0-23.4; autoimmune hepatitis overlap (AIHo) 42.9% vs. 7.1%; P<0.0001; OR=9.8, 95%CI=3.3-28.5; and longer disease course: 5-10 years 44.9% vs. 38.6%; P=0.004; OR=4.3, 95%CI=1.6-11.5; and >10 years 40.8% vs. 8.6%; P<0.0001; OR=17.6, 95%CI=5.2-59.6. The statins add-on enhanced the response to UDCA 60% vs. 16.3%; P<0.0001; OR=0.1, 95%CI=0.05-0.3. Fibrates use, age, AST, ALT, GGT, cholesterol, and INR were not different between groups. The results obtained in the multivariate analysis are shown in Table 1.

Conclusions: Statins improved response to UDCA. AIHo, advanced fibrosis/cirrhosis, bilirubin >2.0 mg/dL, and obesity were factors related to NR.

Conflict of interest: None

Comparison of Clinical and Biochemical Characteristics Between Responders and Non-Responders to UDCA Treatment in Patients with PBC According to Barcelona Criteria: Univariate Analysis

Clinical and Biochemical Characteristics	Responders (n = 70)	Non-Responders (n = 49)	P-value	OR (95% CI)
Age, years	50.5 ± 11.8	48.9 ± 10.9	0.46	NA
Alkaline phosphatase, U/L	480 (170–1556)	666 (143–1445)	0.01	NA
Platelets, x 10?/L	200 (78–436)	118 (52–518)	< 0.0001	NA
Total bilirubin, mg/dL	1.6 (1.0–3.0)	1.9 (1.0–6.4)	< 0.0001	NA
ALT, U/L	75 (21–185)	102 (19–456)	0.07	NA
AST, U/L	77 (23–204)	98 (18–333)	0.12	NA
GGT, U/L	354 (86–1349)	444 (99–1238)	0.05	NA
Cholesterol, mg/dL	215 (85–779)	198 (85–409)	0.29	NA
Albumin, g/dL	4.0 (2.6–4.8)	3.5 (2.0–4.8)	< 0.0001	NA
INR	1.0 (0.7–1.5)	1.0 (0.8–1.5)	0.50	NA
Fibrosis F3 or F4, n (%)	18 (25.7%)	41 (83.7%)	< 0.0001	14.8 (5.8–37.4)
Obesity, n (%)	22 (31.4%)	40 (81.6%)	< 0.0001	9.7 (4.0–23.4)
AIH overlap, n (%)	5 (7.1%)	21 (42.9%)	< 0.0001	9.8 (3.3–28.5)
Dyslipidemia, n (%)	44 (62.9%)	11 (22.4%)	< 0.0001	0.2 (0.08–0.4)
Statin use, n (%)	42 (60%)	8 (16.3%)	< 0.0001	0.1 (0.05–0.3)
Fibrate use, n (%)	33 (47.1%)	23 (46.9%)	0.98	1.0 (0.5–2.1)
PBC duration < 5 years	37 (52.8%)	7 (14.3%)	Ref	Ref
PBC duration 5 to 10 years	27 (38.6%)	22 (44.9%)	0.004	4.3 (1.6–11.5)
PBC duration > 10 years	6 (8.6%)	20 (40.8%)	< 0.0001	17.6 (5.2–59.6)
Total bilirubin > 2.0 mg/dL, n (%)	13 (18.6%)	24 (48.9%)	< 0.0001	4.2 (1.8–9.6)

Multivariate Analysis of Factors Associated with Response or Failure to UDCA Treatment in PBC Patients (Barcelona Criteria)

Variable	OR (95% CI)	P-value
Total bilirubin > 2.0 mg/dL	4.4 (1.1 – 17.0)	0.03
Fibrosis F3 or F4	7.1 (1.9 – 26.6)	0.004
Obesity	4.9 (1.4 – 17.9)	0.015
AIH overlap	20.8 (3.1 – 137.6)	0.002
Statin use *	0.08 (0.02 – 0.4)	0.002
PBC duration 5 to 10 years	1.2 (0.3 – 5.4)	0.78
PBC duration > 10 years	6.1 (1.0 – 38.3)	0.05

Abbreviations: AIH = Autoimmune Hepatitis; CI = Confidence Interval; F3 = Advanced Fibrosis; F4 = Cirrhosis; OR = Odds Ratio; PBC = Primary Biliary Cholangitis; UDCA = Ursodeoxycholic Acid.

* = **Protective factor.**

Multivariate analysis: Binary logistic regression.

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#108

FROM POLICY TO PRACTICE: HEPATITIS C CARE INDICATORS IN URUGUAY BEFORE AND AFTER THE INTRODUCTION OF PUBLIC HEALTH STRATEGIES

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Introduction and Objectives: Uruguay has implemented measures since 2022 to strengthen its hepatitis C response, aligned with WHO's 2030 elimination targets. These include national guidelines and awareness campaigns. In July 2024, two key policies were introduced: the inclusion of HCV RNA testing in the national health plan and a one-time anti-HCV screening during mandatory health exams for work and physical activity, initially targeting individuals aged 56–64.

We aimed to assess differences in the national hepatitis C cascade of care before and after the implementation of these public policies.

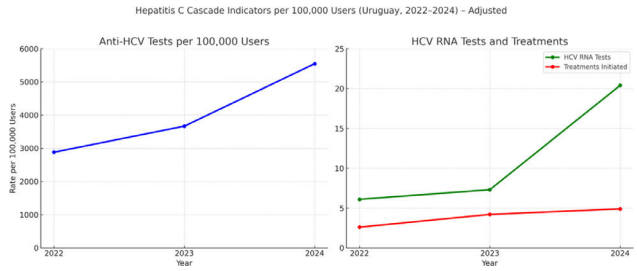
Materials and Methods: Data were collected through structured surveys sent by the Ministry of Health to all 44 national healthcare providers. Cascade indicators were analyzed for 2022, 2023 and 2024, including anti-HCV testing, seropositivity, HCV RNA testing, RNA positivity, and treatment initiation. All indicators were normalized per 100,000 users covered by respondents.

Results: In 2024, 29 healthcare providers responded (covering 90% of health system users). In 2022–2023, 22 providers reported laboratory indicators (35% coverage), while 25 reported treatment indicators (73%).

Anti-HCV testing rose from 2,883 in 2022 to 5,548 per 100,000 users in 2024. HCV RNA testing increased from 6.1 to 20.4, and treatment initiation from 2.6 to 4.9 per 100,000 users. Seropositivity remained stable (0.7%). Among anti-HCV–positive individuals, HCV RNA testing uptake increased from 37% in 2022 to 54% in 2024.

Conclusions: Improvements observed in the cascade of care align with the implementation of targeted hepatitis C policies, highlighting their potential role in supporting national elimination efforts.

Conflict of interest: None



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#109

CHARACTERIZATION OF PATIENTS CO-INFECTED WITH HEPATITIS C AND HIV IN THE NORTH REGION OF BRAZ

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Ana Paula Maciel Gurski[1], Ana Monica de Mello[1],
Nathália da Silva Cruz[1], Mário Peribanez Gonzalez[1],
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Introduction and Objectives: Patients co-infected with Human Immunodeficiency Virus (HIV) and hepatitis C virus (HCV) are at higher risk of unfavorable outcomes, such as accelerated development of liver fibrosis and cirrhosis, as well as increased morbidity and mortality.

To describe the profile of patients co-infected with hepatitis C and HIV in the North region of Brazil between 2013 and 2023.

Materials and Methods: A descriptive, cross-sectional study using data from the Notifiable Diseases Information System (Sinan) for the period from 2013 to 2023. The variables analyzed were sex, race, and education level. Descriptive statistical analysis was performed to characterize the profile of the cases.

Results: A total of 420 cases of co-infection with hepatitis C and HIV were identified. The majority were male (69.0%) and self-declared as "pardo" (brown/mixed-race) (81.4%). Regarding education level, 26.2% of the records were unknown; among the available data, those with complete high school education (19.0%) and 5 to 8 incomplete years of study (18.1%) stood out. In terms of geographical distribution, Amazonas had the highest proportion of cases (38.8%), followed by Pará (29.5%) and Rondônia (16.7%).

Conclusions: The data indicate a predominant profile of co-infection among men, "pardo" individuals, and those with low education levels, with a concentration in the state of Amazonas. These findings reinforce the need for specific prevention, diagnosis, and care strategies aimed at the most vulnerable populations in the North region.

Conflict of interest: None

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#110

DATA OMISSION IN COMPULSORY NOTIFICATION FORMS RELATED TO HEPATITIS A, B AND C AND HIV CO-INFECTION

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Ana Monica de Mello[1],
Carla Francisca dos Santos Cruz[1],
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Introduction and Objectives: Co-infection with Human Immunodeficiency Virus (HIV) and hepatitis C virus (HCV) represents a significant public health challenge in Brazil, as it is associated with worsening clinical outcomes, such as accelerated progression of liver disease and increased morbidity and mortality.

To describe the rate of incomplete reporting related to HCV and HIV co-infection among individuals notified between 2013 and 2023 in the North region of Brazil.

Materials and Methods: This is a descriptive, cross-sectional study conducted using data from the Notifiable Diseases Information System (Sinan) database for the period from 2013 to 2023. The variables used were viral hepatitis classification and co-infection with HIV. Subsequently, a descriptive analysis was performed to identify omissions in the HIV co-infection variable in viral hepatitis notifications.

Results: A high number (18.6%) of data omissions was observed regarding HIV and viral hepatitis co-infection. Among the types, the highest omission rate was observed in hepatitis A notifications (21.7%), followed by hepatitis C (20.3%) and hepatitis B (17%). Among the states, Roraima showed the highest percentage of omission of information on HIV diagnosis (23.2%).

Conclusions: The data reveal a significant percentage of omissions regarding the investigation of HIV co-infection in viral hepatitis notifications, especially for hepatitis A (21.7%), C (20.3%), and B (17%). This weakness in the completeness of information compromises epidemiological surveillance and health action planning.

Conflict of interest: None

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#111

IMPACT OF HEPATITIS A VACCINATION IN PRIORITY ADULT GROUPS AS AN OUTBREAK CONTAINMENT STRATEGY IN BRAZIL

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Joao Vitor da Mota Silva[1],
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Introduction and Objectives: Viral hepatitis A (HAV) is an infection primarily transmitted via the fecal-oral route. In 2016, the World Health Organization observed an increase in HAV cases in low-endemicity countries, associated with oral-anal sexual practices.

To evaluate the outcome of hepatitis A vaccination in adults from priority groups as a strategy for containing the hepatitis A outbreak.

Materials and Methods: A document analysis of state technical reports and technical notes from the Ministry of Health addressing epidemiological outbreaks in two Brazilian capitals was conducted.

Results: In Brazil, there were HAV outbreaks in São Paulo (2017) and Curitiba (2024), with similar characteristics and a predominance of cases in adult males via sexual transmission. In São Paulo, an increase in cases was noted, with 786 reported cases, 80% of which were among individuals aged 18 to 39. In 2018, a reactive vaccination campaign against HAV was initiated, leading to a reduction in cases in subsequent years. In Curitiba, 315 cases were confirmed between 2023 and 2024, with 71.1% of cases in adults aged 20-39. The same strategy was initiated in June 2024, resulting in an 80% reduction in the absolute number of cases by November 2024.

Conclusions: In response to the identified outbreaks, the Ministry of Health developed strategies for adults in priority groups and implemented HAV vaccination for these groups, achieving effective outbreak control. In May 2025, given the positive outcomes, the HAV vaccine was incorporated for all users of HIV Pre-Exposure Prophylaxis (PrEP) as a preventive measure.

Conflict of interest: None

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#112

GUT MYCOBIOME IN THE SPECTRUM OF METABOLIC-DYSFUNCTION ASSOCIATED STEATOTIC LIVER DISEASE (MASLD): FROM MASH TO HEPATOCELLULAR CARCINOMA

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Introduction and Objectives: Gut microbiome (GM) dysbiosis is associated with the development and progression of metabolic-dysfunction associated steatotic liver disease (MASLD) and steatohepatitis (MASH). There is still very limited data on the gut mycobiome (GMyco). This study aims to evaluate the composition of the GMyco at different stages of MASLD.

Patients and Methods: 28 patients were included: controls (CON), n=6; MASH, n=6; cirrhosis (CIR), n=7; and hepatocellular carcinoma (HCC), n=5. Stool samples were collected and stored in a -80°C freezer for DNA extraction and sequencing (18S region). The single sequence variants (ASVs) obtained were compared to the SILVA database.

Results: 77.93% women, average BMI of 31.4 kg/m2, use of antibiotics in the last 6 months (30.4%), and concurrent lipid-lowering drugs in 26.1%. MASH patients had a greater alpha-diversity (p<0,05) than CON. CON had a higher abundance of Ascomycota phylum, and MASH higher Basidiomycota. CON had higher Aspergillaceae family, while there was a higher abundance of Malasseziaceae and Sporidiobolaceae in CIR and Saccharomycetacea in HCC. Only one ASV (genus Naganishia, previously reported as Cryptococcus) was homogeneously distributed in MASLD and absent in CON.

Conclusions: This study shows in an unprecedented way GMyco profile in the different strata of MASLD. Basidiomycetes, higher in MASH, were previously described in obese patients. For the first time, the genus Naganishia was described in this population. Our findings suggest that fungi could be a potential biological marker in the MASLD spectrum in the future.

Conflict of interest: None

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#113

NURSING CARE STRATEGIES FOR INDIVIDUALS WITH VIRAL HEPATITIS IN THE CONTEXT OF PRIMARY HEALTH CARE

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Introduction and Objectives: Nursing professionals play an important role in the prevention, diagnosis, and care of viral hepatitis in Primary Health Care. Understanding nursing practices is essential to strengthening disease elimination strategies.

To identify nursing actions in the care of people with viral hepatitis in the context of Primary Health Care.

Materials and Methods: Data were collected through a form developed by the General Coordination for the Surveillance of Viral Hepatitis and the Federal Nursing Council, sent to nursing professionals in Brazil. The data were then tabulated, entered into an electronic database, and analyzed using descriptive statistics.

Results: The sample consisted of 1,573 participants. It was found that 91.3% of nursing professionals assess users' vaccination status. However, 71.3% of nurses reported never having requested viral load or molecular tests for viral hepatitis, although 83.6% stated that doing so would simplify diagnosis and patient referrals. Regarding complementary exams, 42.8% of nurses had never made such requests, despite recognizing they have legal support based on established clinical protocols. Additionally, 47.6% acknowledged that allowing nurses to request viral load and complementary tests would simplify diagnosis and referrals, highlighting the need for training to support this role.

Conclusions: Nursing plays a strategic role in eliminating viral hepatitis within Primary Health Care. Ongoing training and professional empowerment are essential to expand access, overcome barriers, and implement the actions outlined in Technical Note 369/2020 at the local level.

Conflict of interest: None

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#114

GEOREFERENCING AS A MANAGEMENT STRATEGY FOR SITUATIONAL DIAGNOSIS OF THE TERRITORY IN THE CARE OF VIRAL HEPATITIS

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Introduction and Objectives: Georeferencing, by mapping geographic coordinates, helps evaluate the decentralization of health services, contributing to increased user access.

To map the network for diagnosis, treatment, and follow-up of viral hepatitis cases in the municipalities of Santa Catarina.

Materials and Methods: This is an evaluative, quantitative study with a descriptive approach. Data were collected through a questionnaire applied throughout Brazil. Santa Catarina was selected for this analysis due to the higher response rate from its municipalities. For service analysis, georeferencing techniques using geographic coordinates of institutions collected via Google Earth were employed, followed by the creation of thematic maps using QGIS software.

Results: The study covered 88.8% of municipalities. Regarding georeferencing of services, 99.2% of municipalities offer rapid tests for viral hepatitis. However, 19.5% do not collect biological material for molecular testing. Furthermore, 86.3% of municipalities do not perform molecular testing within their territory. Additionally, 46.2% of municipalities refer patients to specialized services in other municipalities for treatment. Moreover, 41.6% of the patients who require clinical follow-up also needed to travel for care.

Conclusions: Significant progress was observed in expanding access to viral hepatitis diagnosis, with nearly all municipalities offering rapid tests. However, challenges remain in decentralizing biological material collection and molecular test analysis, as well as in access to treatment and clinical follow-up. The need for patient travel compromises care comprehensiveness and hinders treatment adherence.

Conflict of interest: None

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#116

WHAT IS THE PROGNOSTIC VALUE OF A BLOOD TEST COUNT IN PATIENTS WITH ALCOHOLIC HEPATITIS?

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Introduction and Objectives: A blood test count is an accessible resource at all levels of healthcare. Few studies have evaluated its usefulness in patients with alcoholic hepatitis (AH).

The aim is to determine the association between the neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR) and systemic immune-inflammation index (SI-II) with 28-day mortality in patients with AH.

Materials and Methods: Longitudinal, retrospective, observational and descriptive cohort study. Subjects met criteria for AH. Patients with conditions that could alter the blood count were excluded. Absolute values of NLR: (neutrophils/lymphocytes), PLR: platelets/lymphocytes, SI-II (neutrophils x platelets/lymphocytes) were estimated.

Statistical analysis was performed with the Jamovi program. To compare clinical values, Student's T-test or Mann Whitney U test were performed. The association analysis between NLR, PLR and SI-II with 28-day mortality, were carried out using a point-biserial correlation. An ROC curve was performed using GraphPad Prism version 10.2.3 to establish the cutoff point of the NLR and determine the sensitivity and specificity.

Results: Eighty-nine patients were included, 86 (96%) men and 3 (4%) women. The mean NLR value in patients who survived was four times the value presented in patients who died within 28 days, two times for the PLR and five times for SI-II (Table 1). The cutoff point of the NLR was >12.9 (AUC 0.986), with a p value <0.0001, sensitivity 92.7% and specificity 94.1% (95% CI).

Conclusions: A blood test count is an accessible resource that could be considered a useful prognostic factor in clinical practice for alcoholic hepatitis.

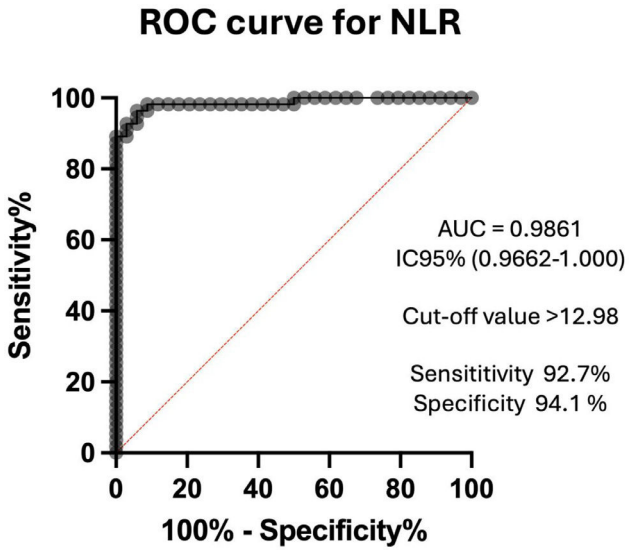
Conflict of interest: None

Table 1. Comparison table of survival at 28 days using prognostic scales.

Variable	Death in the first 28 days (n=55)	Survivors after 28 days (n=34)	p
Age	45.7 ± 9.1	46.0 ± 12.3	0.909
Leukocytes (x10^3 mm^3)	23.3 ± 8.3	11.7 ± 5.4	< 0.001
Platelets (x10^3 uL)	154.0 (84.5, 239.0)	89.5 (56.0, 158.0)	0.008
TP (s)	23.6 (19.8, 28.3)	23.6 (18.3, 29.1)	0.233
BT (mg/dL)	24.1 ± 10.7	16.4 ± 10.0	0.001
AST (U/L)	153 (101, 206)	160 (104, 244)	0.346
ALT (U/L)	54.0 (39.5, 71.5)	60.0 (40.5, 91.3)	0.646
INR	2.15 (1.79, 2.52)	2.03 (1.54, 2.67)	< 0.001
Cr (mg/dL)	2.16 (1.46, 3.54)	1.16 (0.73, 2.30)	0.004
NLR	30.5 (17.2, 32.1)	7.0 (5.0, 8.8)	< 0.001
CLIF SCORE	56.1 ± 6.6	49.3 ± 8.9	< 0.001
MADDREY	79.2 (55.5, 98.2)	69.2 (40.5, 102.0)	0.111
MELD	35.3 ± 11.5	26.8 ± 9.3	< 0.001
MELD NA	36.1 ± 9.3	28.7 ± 8.8	< 0.001
PLR	153 (116, 293)	89.5 (51.3, 104)	< 0.001
SI-II	3269 (1870, 5357)	704 (365, 1102)	< 0.001

Abbreviations: NLR: neutrophil-lymphocyte ratio, PLR: platelet-lymphocyte ratio, SI-II: systemic immune-inflammation index

ROC curve for NLR



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#118

ATORVASTATIN AND RIFAXIMIN IN THYROID PREVENT LIVER THYROID METABOLISM ABNORMALITIES IN HEPATOCELLULAR CARCINOMA: IN VITRO AND IN VIVO STUDY

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Introduction and Objectives: Metabolic-associated steatotic liver disease (MASLD) is one of the leading causes of hepatocellular carcinoma (HCC) worldwide. We evaluated tumoral processes and thyroid metabolism alterations in experimental HCC.

Materials and Methods: Atorvastatin (AT) and Rifaximin (RIFA) were evaluated in vitro and in vivo. Huh7 cells were pretreated with AT (20μM) or RIFA (10μM), subsequently treated with endocrine disrupting tumor promoter (HCB5μM). Sprague-Dawley rats received diethylnitrosamine (135mg/l) in drinking water for 16 weeks, high-fat diet and AT (5mg/Kg) or RIFA (5ml/Kg).

Results: In vitro results revealed that HCB increased colony formation (39%), TGFB1 (45%), COX-2 (25%), cytochrome-c (35%) and caspase-3 (25%) compared to control (CON) - AT and RIFA prevent the increase. AT and RIFA also prevented T3 levels from decreasing. Animals showed 88% higher TGFB1 expression in tumoral areas compared with normal adjacent tissue. AT or RIFA diminished TGFB by 10 and 30% respectively. Fibrosis area was reduced with RIFA by 30%, compared to HCC. AT did not induce significant decrease. HIF1 augmented 200% in tumor areas while AT or RIFA diminished 75% and 50% respectively. DIO3 augmented by 50% in tumor and DIO1 expression did not change.

Conclusions: In conclusion, tumor growth and dedifferentiation seem to diminish with AT or RIFA in both models. Thyroid hormone metabolism changes in different forms: in cells, T3 seems to be altered by D1 and in animals by D3 alterations. These differences can be due to diverse stages of tumor growth and aggressiveness in the models.

Conflict of interest: None

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#120

DIFFERENT LIPIDOMIC SIGNATURE IN EXTRACELLULAR VESICLES IN PATIENTS WITH MASLD- HCC: ANALYSIS OF DIFFERENT STAGES OF MASLD

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Introduction and Objectives: MASLD ranges from isolated steatosis (STE) to steatohepatitis (MASH), cirrhosis (CIR) and hepatocellular carcinoma (HCC). Non-invasive markers have limited ability to identify different stages. Extracellular vesicles (EVs) could be a useful tool. This study aims to evaluate EVs lipid signature in disease progression.

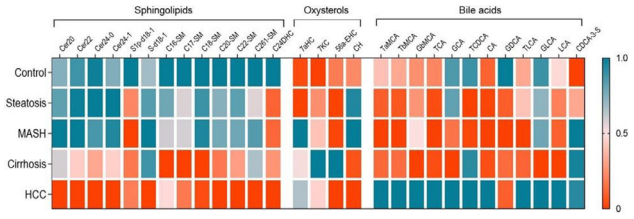
Patients and Methods: EVs were isolated from patients with STE (n=25), MASH without fibrosis (MASH; n=25), CIR (n=25) and HCC (n=18), and compared to controls (CON; n=25). Lipidomics was performed by mass spectrometric analysis of sphingolipids, oxysterols and bile acids.

Results: Figure 1 shows a heatmap of lipid profiles. C24DHC was lower in MASLD vs CON, suggesting early alterations in membrane lipid homeostasis. C18-SM, C20-SM, C22-SM and Cer24-0 decreased in CIR and HCC vs others, indicating progressive disruption of sphingolipid metabolism with progression. C17-SM and C261-SM were significantly reduced in HCC vs CON, reflecting extensive lipid remodeling in late-stage. 7KC levels were significantly increased in HCC vs others, consistent with enhanced oxidative stress specifically associated with hepatocarcinogenesis. Bile acids TCA and CA were higher in HCC vs others, pointing to dysregulation of bile acid pathways in late-stage disease. All differences, $p<0.05$.

Conclusions: Lipid composition of EVs may reflect key molecular changes during MASLD progression. The reduction of sphingolipids and accumulation of oxysterols and bile acids in advanced stages suggest disrupted lipid metabolism, oxidative stress, and hepatocellular dysfunction. These findings support the potential of EV lipidomics as a non-invasive tool for disease staging and mechanistic insight.

Conflict of interest: None

Lipidomics heatmap



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#121

NEW INSIGHTS INTO THYROID HORMONE METABOLISM AND AMMONIA DETOXIFICATION IN MASLD USING N-ACETYLCYSTEINE (NAC) AND L-ORNITHINE L-ASPARTATE (LOLA)

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Introduction and Objectives: Thyroid hormones (THs) are fundamental to liver physiology. TH dysfunction, particularly due to alterations in deiodinase enzymes such as D3, plays a critical role in the progression of MASLD. In MASLD, the Urea Cycle and Krebs Cycle shift

their enzymes to alternative pathways for ammonia detoxification, disrupting normal energy metabolism.

Materials and Methods: Adult male Sprague Dawley rats were randomly assigned to a control group on a standard diet (2.93 kcal/g, n=10), an intervention group on a high-fat diet deficient in choline (MASLD, HDCF, 4.3 kcal/g, n=10), and two treatment groups, MASLD +NAC (n=12) and MASLD+LOLA (n=12), over a period of 16 weeks.

Results: In MASLD, there was an increase in the expression of D3, colocalized with M1 macrophages and TR beta protein levels, while MCT8 levels remained unchanged. Additionally, mitochondrial respiration decreased, and no effects were observed with treatments. Furthermore, Glutamate Dehydrogenase (GDH) activity diminished, whereas α-Ketoglutarate Dehydrogenase (α-KGDH) activity increased. It was also determined that Grp78 (decreased by 74%) and Grp75 (increased by 60%) are regulated by T3 and are endoplasmic reticulum (ER) chaperones meaning ER stress.

Conclusions: Our study corroborates the interaction between TH metabolism and compensatory mechanisms that counteract elevated ammonia levels, as well as the enzymes regulating this process in MASLD. Both NAC and LOLA demonstrated potential in correcting TH metabolism and enhancing ammonia detoxification in MASLD, which may help alleviate symptoms or slow the progression of the disease.

Conflict of interest: None

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#128

EFFICACY AND SAFETY OF SELADELPAR IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS PREVIOUSLY TREATED WITH FIBRATES OR OBETICHOLIC ACID

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Introduction and Objectives: Seladelpar was evaluated as monotherapy or with ursodeoxycholic acid in RESPONSE (NCT04620733) among patients with primary biliary cholangitis. Patients completing RESPONSE could roll over into ASSURE (NCT03301506).

Here, we present 18-month (M) data (6M of ASSURE) in patients with or without prior use of fibrates or obeticholic acid (OCA) continuing into ASSURE from RESPONSE.

Patients and Methods: Patients received oral seladelpar 10 mg or placebo during RESPONSE, followed by open-label seladelpar in ASSURE. Fibrates/OCA were prohibited during RESPONSE. Analyses included patients with or without prior fibrates/OCA use, categorized by RESPONSE assignment: continuous seladelpar or crossover from placebo. Efficacy included the proportion of patients achieving a composite biochemical response (CBR; ALP $<1.67 \times$ ULN, ALP decrease $\geq$15%, and total bilirubin $\leq$ULN). Safety evaluations included adverse events (AEs).

Results: Among patients who continued into ASSURE from RESPONSE (n=158), 16 continuous seladelpar and 11 crossover patients reported prior use of fibrates/OCA (n=27; 17%); 88 continuous seladelpar and 43 crossover patients reported no prior use of fibrates/OCA (n=131; 83%). At 18M, 9/15 (60%) continuous seladelpar patients with prior fibrates/OCA use achieved a CBR vs 54/87 (62%) patients without prior fibrates/OCA use. Among crossover patients, 7/11 (64%) patients with prior fibrates/OCA use vs 32/41 (78%) patients without prior fibrates/OCA use achieved a CBR at 6M of ASSURE. From ASSURE initiation to 6M, AE incidence was similar across all patients, regardless of prior fibrates/OCA use; no treatment-related serious AEs were reported.

Conclusions: Interim results show seladelpar achieved comparable, sustained biochemical responses and favorable safety irrespective of prior fibrates/OCA use.

Conflict of interest: Yes, Gilead Sciences, Inc.

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#129

EFFICACY AND SAFETY OF SELADELPAR IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS AND COMPENSATED CIRRHOSIS IN THE PHASE 3 PLACEBO-CONTROLLED RESPONSE TRIAL

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Introduction and Objectives: In the Phase 3 RESPONSE trial (NCT04620733), seladelpar, a first-in-class delpar (selective peroxisome proliferator–activated receptor delta agonist), significantly improved biomarkers of cholestasis in patients with primary biliary cholangitis (PBC) over 12 months vs placebo. More patients with cirrhosis met the primary endpoint in the seladelpar arm (39%) vs placebo (22%).

We now report data on additional biochemical results and safety in patients with or without cirrhosis in RESPONSE.

Patients and Methods: Eligible patients had an inadequate response or intolerance to ursodeoxycholic acid, alkaline

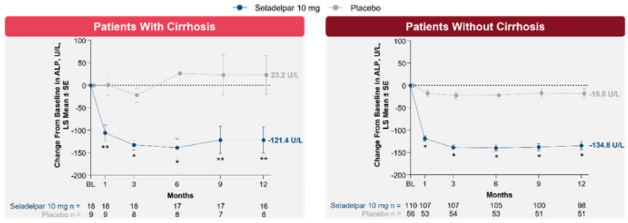
phosphatase (ALP) ≥1.67 × ULN, and total bilirubin ≤2 × ULN; they received seladelpar 10 mg or placebo (2:1 randomisation) for 12 months. Cirrhosis was defined by medical history, liver biopsy, transient elastography, laboratory findings, and radiological features. Safety and changes in laboratory parameters were assessed.

Results: Of 193 patients, 27 (14%) had Child-Pugh A compensated cirrhosis at baseline (18 seladelpar, 9 placebo). Mean ALP change was −121.4 U/L for seladelpar vs 23.2 U/L for placebo patients with cirrhosis, and −134.8 U/L for seladelpar vs −18.0 U/L for placebo patients without cirrhosis. Greater decreases in other laboratory parameters were observed with seladelpar vs placebo regardless of cirrhosis status. Adverse events with seladelpar vs placebo were similar in patients with and without cirrhosis. No patients with cirrhosis discontinued seladelpar due to adverse events. Elevations in alanine aminotransferase or aspartate aminotransferase of >3 × ULN occurred in 3 patients with cirrhosis.

Conclusions: Seladelpar reduced biomarkers of cholestasis and was overall safe and well tolerated in patients with PBC with or without cirrhosis.

Conflict of interest: Yes, Gilead Sciences, Inc.

Changes in ALP in Patients With PBC With or Without Cirrhosis at Baseline Treated With Seladelpar or Placebo in the RESPONSE Trial



*P<.0001. **P<.05

ALP, alkaline phosphatase; BL, baseline; LS, least squares; PBC, primary biliary cholangitis; SE, standard error.

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#131

CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF HEPATOCELLULAR CARCINOMA IN A REFERRAL HOSPITAL IN LIMA, PERU

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Introduction and Objectives: Hepatocellular carcinoma (HCC) is the most common primary liver tumor (85–90%) and one of the leading causes of death among cirrhotic patients.

To determine the clinical and epidemiological characteristics of patients with HCC at a referral hospital in Lima, Peru.

Materials and Methods: A cross-sectional observational study including 282 patients diagnosed with HCC at the Liver Unit of HNERM-EsSalud between 2016 and 2023.

Results: 62% of patients were male, with a mean age of 65.4 years (range: 16–92). Cirrhosis was present in 78.4% of cases. The most common etiology was MASLD (52%), followed by hepatitis B (16.3%) and hepatitis C (13%). Liver function was classified as Child-Pugh A in 53%, B in 30%, and C in 17%. Only 40% were enrolled in a screening program. Tumor stage according to BCLC was: 0–A in 40%, B in 18.6%, C in 6%, and D in 33%. Serum AFP>200 ng/mL was observed in 45% of cases. Treatments included transarterial chemoembolization (21%), radiofrequency ablation (5.3%), surgery (15.6%), liver transplantation (6.4%), systemic therapy (6%), and palliative care (39%).

When comparing cirrhotic vs non-cirrhotic patients, hepatitis B was more frequent in the non-cirrhotic group (P<0.001), with larger tumors (11.1 cm vs. 5.3 cm, P<0.001), higher AFP levels, and lower screening rates.

Conclusions: MASLD was the leading cause of HCC overall, while hepatitis B predominated in non-cirrhotic patients. Only 40% underwent screening. Patients in early stages had access to better treatment options.

Conflict of interest: None

Variable	Non-cirrhosis (N=61)	Cirrhosis (N=221)	p-value
Age (mean, SD)	56.2 (18.1)	67.9 (9.8)	<0.001
Sex			0.733
Female	22 (36.1%)	85 (38.5%)	
Male	36(63.9%)	136 (61.5%)	
Etiology			0.001
MASLD	22 (36.1%)	125 (56.6%)	
Others	14 (23%)	39 (17.6%)	
HVB	19 (31.1%)	27 (12.2%)	
HVC	6 (9.8%)	30 (13.6%)	
Diabetes			<0.001
Yes	11 (18%)	93 (42.1%)	
No	50 (82%)	128 (57.9%)	
Hypertension			0.057
Yes	18 (29.5%)	95 (43%)	
No	43 (70.5%)	126 (57%)	
Coronary artery disease			0.193
Yes	0 (0%)	6 (2.7%)	
No	61 (100%)	215 (97.3%)	
Renal disease			0.361
Yes	2 (3.3%)	14 (6.3%)	
No	59 (96.7%)	215 (97.3%)	
Diagnosis exam for HCC			<0.001
Surveillance	4 (6.6%)	108 (48.9%)	
Symptoms	57 (93.4%)	113 (51.1%)	
Diagnosis methods			<0.001
Image	28 (45.9%)	204 (92.3%)	
Biopsy	35 (54.1%)	17 (7.7%)	
Tumor diameter (mean, SD)	11.1 (6)	5.8 (3.7)	<0.001
Nodules number			0.074
<=3	47 (77%)	191 (86.4%)	
>3	14 (23%)	30 (13.6%)	
AFP			0.015
<20	12 (19.7%)	66 (29.9%)	
20-200	13 (21.3%)	65 (29.4%)	
200-400	3 (4.9%)	20 (9%)	
>400	33 (54.1%)	70 (31.7%)	
Treatment			<0.001
Palliative	24 (39.3%)	86 (38.9%)	
TACE	0 (0%)	59 (26.7%)	
RFA	1 (1.6%)	14 (6.3%)	
Systemic	7 (11.5%)	10 (4.5%)	
Surgery	23 (37.7%)	23 (10.4%)	
Liver transplant	0 (0 %)	16 (7.2%)	
Others	6 (9.8%)	13 (5.9%)	

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#133

IMPORTANCE OF P450 POLYMORPHISM IN THE DEVELOPMENT OF DILI/HILI: HISTOLOGICAL AND BIOCHEMICAL FINDINGS

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Introduction and Objectives: Drug-induced liver injury (DILI) and herb-induced liver injury (HILI) represent diagnostic and prognostic challenges in hepatology. Objective: To evaluate histological, epidemiological, biochemical variables and the prevalence of cytochrome P450 (CYP450) genotypes in individuals with DILI/HILI at a hepatotoxicity clinic.

Materials and Methods: Cross-sectional study with individuals who developed DILI/HILI and underwent liver biopsy.

Results: Sample comprised 58 individuals, divided into 2 groups: those who developed ALF (34) and those who did not (24). Mean age 38.71 (SD 14.58), 79.3% female. Hepatocellular biochemical pattern: 70.7%, mixed 12.1%, cholestatic 17.2%. The ALF group did not present a cholestatic pattern. Most frequent drugs: antituberculosis (8), nimesulide (5), diclofenac (4). Regarding biochemistry, in the group without ALF, comparing presence of the main drug with or without CYP450 metabolism: BT 5.32 mg/dL vs 4.01; ALT 289.5 U/L vs 274; AST 316 U/L vs 272.5; INR 1 vs 1; AST/ALT 1.07 vs 0.91. In the ALF group: BT 18.75 vs 29.94 mg/dL; ALT 885 vs 474.5 U/L; AST 1350 vs 498.5 U/L; AST/ALT 1.37 vs 0.79. Hy's law applied to 100% of ALF cases. Patients using two or more concomitant drugs showed worse biochemical and histological findings. Most frequent CYPs among non-ALF: CYP3A4 20.68%, CYP2C9 8.62%, CYP2D6 6.89%; among ALF: CYP3A4 31.03%, CYP2C9 15.51%, CYP2A2 8.62%. Histological findings: massive/submassive necrosis was present in 85.29% of ALF patients, mainly in those with CYP metabolism. Fibrosis was more frequent in the group without progression to ALF (9 vs 3).

Conclusions: Hepatic metabolism by CYP450 is associated with more severe DILI/HILI, including higher frequency of hepatic necrosis and elevated biochemical values. Recognizing the metabolic profile of implicated drugs may help predict injury severity and guide earlier, individualized treatment strategies.

Conflict of interest: None

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Variable	DILI without ALF (n = 24)		DILI with ALF (n = 34)		p
	CYP450 (n=16)	Non-CYP (n=8)	CYP450 (n=28)	Non-CYP (n=6)	
Age (years), mean (SD)	39.56 (14.23)	48.75 (13)	32.29 (12.5)	40.5 (22.28)	>0,05
Female sex, n (%)	13 (22.41)	6 (10.34)	22 (37.93)	6 (10.34)	>0,05
INR, median (IQR)	1 (0.99–1.06)	1 (0.97–1.3)	3.74 (2.2–5.25)	3.48 (2.2–9.08)	<0,05
BT (mg/dL), median (IQR)	5.32 (0.99–11.59)	4.01 (0.6–15.97)	18.75 (10.67–26.49)	26.94 (21.71–28.73)	>0,05
ALT (U/L), median (IQR)	289.5 (160.75–608.5)	274 (219–635)	885 (593–1563)	474.5 (455.75–2138)	<0,05
AST (U/L), median (IQR)	316 (110–873)	272.5 (152.7–556.5)	1350 (552–3450)	498.5 (350.5–2892.75)	<0,05
Liver injury pattern, n (%):					
Hepatocellular	8 (13.7)	3 (5.17)	24 (41.37)	6 (10.34)	<0,05
Cholestatic	7 (12)	0 (0)	0 (0)	0 (0)	<0,05
Mixed	2 (3.44)	4 (6.89)	4 (6.89)	0 (0)	<0,05
AST/ALT ratio, median (IQR)	1.07 (0.51–1.52)	0.91 (0.57–1.16)	1.37 (0.75–2.38)	0.79 (0.54–2.2)	<0,5
Hy's Law criteria met, n (%):	11 (18.9)	4 (6.89)	28 (48.27)	6 (10.34)	<0,05
Concomitant medications ≥2, n (%)	9 (15.51)	6 (10.34)	20 (34.48)	3 (5.17)	>0,05
Concomitant CYP450-metabolized drugs, n (%)	10 (17.24)	3 (5.17)	10 (17.24)	2 (3.44)	>0,05
Most frequent CYP450 isoenzymes, n (%):					
CYP3A4	12 (20.68)	—	18 (31.03)	—	>0,05
CYP2C9	5 (8.62)	—	9 (15.51)	—	>0,05
CYP2D6	4 (6.89)	—	2 (3.44)	—	>0,05
CYP3A5	1 (1.72)	—	2 (3.44)	—	>0,05
CYP2C19	3 (5.17)	—	4 (6.89)	—	>0,05
CYP2E1	2 (3.44)	—	3 (5.17)	—	>0,05
CYP1A2	1 (1.72)	—	5 (8.62)	—	>0,05
Most frequent causative drugs:	Chlorpromazine (2), nimesulide (2)	Amoxicillin–clavulanate (2)	Diclofenac (4), nimesulide (3), antituberculosis drugs (8),	methyldopa (3)	
Histological findings, n (%):					
Chronic hepatitis	3 (5.17)	1 (1.71)	1 (1.71)	1 (1.71)	>0,05
Active chronic hepatitis	3 (5.17)	1 (1.71)	2 (3.44)	1 (1.71)	>0,05
Acute cholestasis	5 (8.62)	1 (1.71)	6 (10.34)	1 (1.71)	>0,05
Chronic cholestasis	1 (1.71)	0 (0)	0 (0)	0 (0)	>0,05
Cholestatic hepatitis	4 (6.89)	0 (0)	2 (3.44)	1 (1.71)	>0,05
Type of necrosis, n (%):					
Massive/submassive necrosis	0 (0)	0 (0)	24 (41.37)	5 (8.62)	>0,05
Zonal/focal necrosis	5 (8.62)	4 (6.89)	4 (6.89)	1 (1.71)	<0,05
Other histological findings, n (%):					
Steatosis	1 (1.71)	0 (0)	3 (5.17)	0 (0)	>0,05
Fibrosis	9 (15.51)	1 (1.71)	3 (5.17)	0 (0)	<0,05
Siderosis	2 (3.44)	1 (1.71)	4 (6.89)	3 (5.17)	>0,05
Mononuclear infiltrate	14 (24.13)	4 (6.89)	18 (31.03)	5 (8.62)	>0,05
Interface activity	4 (6.89)	1 (1.71)	0 (0)	0 (0)	<0,05
Hepatocyte ballooning	7 (12)	2 (3.44)	2 (3.44)	0 (0)	<0,05
Ductular reaction/proliferation	10 (17.24)	3 (5.17)	7 (12)	1 (1.71)	>0,05

#135

SARCOPENIA IS A KEY DETERMINANT MARKER OF LEAN MASLD: A COMPARATIVE ANALYSIS OF CLINICAL PROFILE, BODY COMPOSITION BY DEXA, AND MUSCLE STRENGTH IN LEAN, OVERWEIGHT, AND OBESE MASLD PATIENTS

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Introduction and Objectives: Lean MASLD affects 10–15% of patients, presenting metabolic alterations despite normal BMI.

Characterize the MASLD phenotype according to BMI.

Materials and Methods: 68 patients with MASLD were divided into groups: lean (n=18); overweight (n=28); obese (n=22). Were evaluated: anthropometric measurements, comorbidities, liver fibrosis by transient elastography, body composition by DEXA, and muscle strength by handgrip dynamometry. The Kruskal-Wallis test was used for statistical analysis.

Results: Female sex was predominant. There were no significant differences in mean age or the prevalence of comorbidities (T2DM/IR/dyslipidemia) among groups ($p>0.05$), except for arterial hypertension, more prevalent in the obese ($p\leq0.05$). Aminotransferase levels were similar: ALT (p=0.440) and AST (p=0.427). Mild hepatic fibrosis (F0/F1) predominated in all groups (p=0.418); however, there was a trend toward higher liver stiffness suggesting advanced fibrosis in the lean (22.2%, 7.14%, 13.64%; p=0.340). Visceral adipose tissue area >100 cm^2 was observed in 38.9% of lean, compared to 100% in the other groups ($p\leq0.05$). Low muscle mass was more prevalent in the lean (55.6%, 14.3%, 4.5%; $p\leq0.05$), and sarcopenia, defined as the coexistence of low lean mass and reduced muscle strength, was also more prevalent in lean (27.8%, 7.14% in overweight, 4.5% in obese; $p\leq0.05$).

Conclusions: Lean MASLD presents a higher prevalence of sarcopenia and a distinct body composition profile, despite similar comorbidities and age compared to other groups. These findings highlight the role of lean mass in the pathophysiology of lean MASLD and underscore the limitations of BMI as a sole evaluative parameter.

Conflict of interest: None

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#136

CLINICAL PROFILE AND SURVIVAL IN SEVERE ALCOHOL-RELATED LIVER DISEASE: A RETROSPECTIVE STUDY FROM A REFERRAL HOSPITAL IN PERU

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Introduction and Objectives: Severe alcohol-related liver disease (ALD) is a life-threatening condition with high short-term mortality, particularly in patients with underlying cirrhosis.

To describe the clinical characteristics and survival outcomes of patients with severe ALD.

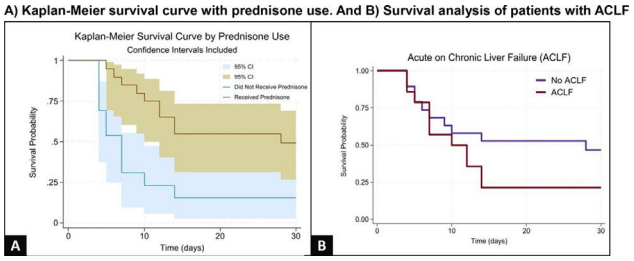
Materials and Methods: We conducted a retrospective study at a referral hospital in Peru from January 2020 to June 2024. Adults with severe alcoholic hepatitis based on NIAAA criteria and presenting with MELD >20 and/or GAHS ≥9 were included. Clinical data including scores (MELD, GAHS, Lille), complications, and management were collected. Survival was analyzed using Kaplan-Meier.

Results: We identified 33 cases (29 males, 4 females) with a mean age of 51 ± 10.9 years. Cirrhosis was present in 91% of cases. The mean GAHS was 9.8 ± 1.1, and the median MELD score was 27 (IQR: 22–33.5). Lille score <0.45 on day 7 in 30%. Upper gastrointestinal bleeding occurred in 21%, and 61% developed infections, with pneumonia (54%) and peritonitis (6%) being the most frequent. Twenty-six patients died; the leading cause of death was sepsis (61%), followed by respiratory failure (9%). Patients treated with prednisone (61%) had a 28-day survival probability of 49.5% (95% CI: 26.5%–69%) and a six-month survival of 27.5% (95% CI: 10%–48%). Among patients with ACLF (42%), the 28-day survival probability was 21% (95% CI: 5%–45%).

Conclusions: This is the largest Latin American series on severe alcoholic hepatitis. Infections and organ failure were frequent. Corticosteroid use improved short-term survival, while ACLF was associated with low survival probability.

Conflict of interest: None

A) Kaplan-Meier survival curve with prednisone use. And B) Survival analysis of patients with ACLF



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#137

ANALYSIS OF NEUTROPHIL-TO-LYMPHOCYTE RATIO AND C-REACTIVE PROTEIN IN CIRRHOTIC PATIENTS WITH BACTERIAL, FUNGAL, AND VIRAL INFECTIONS: A CROSS-SECTIONAL STUDY

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Introduction and Objectives: Patients with liver cirrhosis and infections may develop Acute-on-Chronic Liver Failure (ACLF), significantly reducing survival. Neutrophil-to-Lymphocyte Ratio (NLR) and C-Reactive Protein (CRP) are key inflammatory biomarkers.

This study aimed to analyze NLR and CRP levels in cirrhotic patients, categorizing them into three groups: those with “bacterial infections”, those with “no infections”, and those with “other infections” (fungal/viral).

Materials and Methods: A retrospective, analytical study was conducted on cirrhotic patients from 2023-2024. Data analyzed included age, sex, Child-Pugh score, and median NLR and CRP, stratified into three groups. Statistical analysis involved Chi-square, Kruskal-Wallis, and Dunn’s post-hoc tests.

Results: Of 220 patients, 66.4% (n=146) were male, with a median age of 61. Child C scores were prevalent in “bacterial infection” patients (63.8%, n=37); Child B dominated in “other infections” (41.2%, n=14) and “no infections” (49.2%, n=63), with p<0.001. Among 162 patients with CRP data, the “bacterial infection” group (n=47) had a median CRP of 59.8 (IQR=34.79–82.8), significantly higher than the "no infection" (n=87): 14.2 (IQR: 6-34) and “other infections” (n=28): 26.94 (4.26-60.4) groups (p<0.001). The bacterial group also showed a higher median NLR [6.17 (IQR=3.19-10.77)] versus “no infections” [3.53(1.99-6.05)] and other infections [3.97 (2.44-11.27)] (p=0.002), with statistical significance between bacterial and no infection groups.

Conclusions: Cirrhotic patients with bacterial infections exhibited higher NLR and CRP values, especially compared to those without infections. This suggests NLR and CRP are valuable biomarkers for detecting infections in cirrhotic patients.

Conflict of interest: None

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#138

CLINICAL CHARACTERISTICS AND SAFETY PROFILE OF ATEZOLIZUMAB/BEVACIZUMAB IN CARCINOMA HEPATOCELLULAR: EXPERIENCE OF A CENTER OF REFERENCE NATIONAL IN PERU

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Introduction and Objectives: The high disease burden and limited survival of cirrhotic patients with hepatocarcinoma have led to the emphasis on the combination of atezolizumab and bevacizumab as first-line therapy.

To describe the clinical characteristics of patients with hepatocarcinoma treated with Atezolizumab/Bevacizumab in a Peruvian hospital.

Materials and Methods: Descriptive cross-sectional study that included adult patients diagnosed with hepatocarcinoma treated with Atezolizumab/Bevacizumab in the Liver and Transplant Service of the Edgardo Rebagliati Martins National Hospital.

Results: Twenty-three patients were evaluated, with a predominance of males (60.9%) and a preserved functional status in the entire cohort (100% with ECOG 0-1). All patients had compensated liver function (Child-Pugh A). The most common etiology of cirrhosis was metabolically associated steatotic liver disease (MASLD), with a prevalence of 52.2%. Regarding tumor stage, 43.5% were in intermediate stage (BCLC B) and 26.1% in advanced stage (BCLC C). The median survival from the start of treatment to the last follow-up was 13 months (interquartile range: 8). a 17). Treatment was well tolerated, with no adverse events reported in 86.9% of patients. According to RECIST criteria, 34.8% had a complete tumor response or stable disease. Five patients (21.7%) died during overall follow-up.

Conclusions: In this Peruvian cohort of patients with hepatocarcinoma, treatment with Atezolizumab/Bevacizumab showed acceptable survival.

Conflict of interest: None

Table 1. Clinical characteristics of the study population (n = 23)

Characteristic??	n (%)
Sex	
Female	9 (39.1)
Male	14 (60.9)
Age	
<40 years old	1 (4.4)
41 to 60 years old	1 (4.4)
61 to 75 years old	15 (65.2)
> 75 years	6 (26.1)
Etiology of HCC	
MASLD	12 (52.2)
Cholestasis	5 (21.7)
ALD	2 (8.7)
Hepatitis C	2 (8.7)
Hepatitis B	1 (4.4)
Autoimmune hepatitis	1 (4.4)
Albi Score	
Grade 1	7 (30.4)
Grade 2	15 (65.2)
Grade 3	1 (4.4)
Child Pugh	
A-5	10 (43.5)
A-6	13 (56.5)
Degree of varicose veins	
Grade 1	10 (43.5)
Grade 2	3 (13.0)
Grade 3	1 (4.4)
Does not present varicose veins	9 (39.1)
Tube treatment for esophageal varices	
No	18 (78.3)
Yes	5 (21.7)
Number of comorbidities*	1 (1 - 2)
HBP	13 (56.5)
DM2	10 (43.5)
Obesity	6 (26.1)
Overall survival from start of treatment to last follow-up in months*	13 (8 - 17)
Mortality Subanalysis?	
3 months (23 patients)	4.35%
6 months (22 patients)	4.54%
12 months (14 patients)	14.3%
Adverse effect of treatment	
None	20 (87.5)
Nephrotic syndrome?	1 (4.4)
Pulmonary thromboembolism	1 (4.4)
Pneumonitis	1 (4.4)
Local regional treatment	
No	15 (65.2)
RFA	2 (8.7)
TACE	6 (26.1)
Tumor resection?	
No	19 (82.6)
Yes	4 (17.4)
Vascular metastasis	
No	21 (91.3)
Yes	2 (8.7)
Extrahepatic metastasis	
No	18 (78.3)
Yes	5 (21.7)
Death	
No	19 (82.6)
Yes	4 (17.4)

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#140

LOCAL EXPERIENCE USING THE ULTRASOUND VISUALIZATION SCORE IN HEPATOCELLULAR CARCINOMA SCREENING

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Introduction and Objectives: The accuracy of ultrasound screening for hepatocellular carcinoma (HCC) depends on visualization quality. The extent to which clinical and technical variables impact image quality remains unclear. This study aimed to assess our hospital's experience implementing a visualization score in screening ultrasounds.

Materials and Methods: Between August 2020 and December 2024, 2,598 screening ultrasounds were performed in 1,256 patients by 6 certified radiologists at Hospital Sótero del Río in Santiago, Chile. Clinical variables, technical artifacts, visualization score, and LIRADS were recorded. Frequencies were calculated, detection rates estimated, and association tests were conducted.

Results: The distribution of ultrasounds by year and visualization score is shown in Table and Figure 1. A total of 1,447 (55.7%) examinations were performed in women and 1,151 (44.3%) in men; mean age was 62.7 years. During the study period, 28 HCC were detected (detection rate: 10.8 per 1,000 ultrasounds; 22.3 per 1,000 patients screened; number needed to detect: 45 patients). Visualization score was reported in 1,858 ultrasounds. Score A was most frequent (66.95%), while suboptimal visualization (score B/C) occurred in 33.05%. Male sex (OR 1.46; 95% CI 1.20–1.77; $p < 0.001$) and older age ($p < 0.001$) were associated with score B/C. Technical artifacts such as meteorism, acoustic shadowing, ascites, and bowel interposition were all associated with suboptimal visualization ($p < 0.001$).

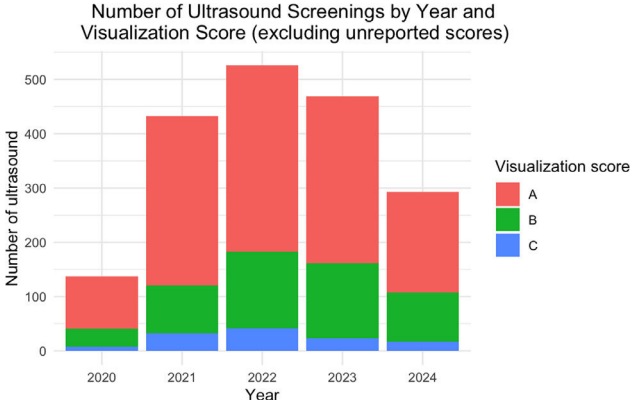
Conclusions: The screening program identified one HCC for every 45 patients screened. One-third of ultrasounds showed suboptimal visualization, associated with older age, male sex, and technical artifacts. These findings underscore the importance of optimizing technical conditions during screening.

Conflict of interest: None

Total ultrasounds by year and visualization score (table)

	2020	2021	2022	2023	2024	Total by score
A	96	312	343	308	185	1244
B	33	88	141	138	91	491
C	8	33	42	23	17	123
Score not reported	20	95	175	184	266	740
Total by year	157	528	701	653	559	2598

Total ultrasounds by year and visualization score (excluding unreported scores)



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#141

ENZIMATICALLY MODIFIED QUERCETIN PREVENTS FIBROSIS PROGRESSION IN CHEMICALLY INDUCED LIVER CANCER IN WISTAR RATS

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Introduction and Objectives: The hepatoprotective, antioxidant, and anticancer properties of quercetin cannot easily be used for therapeutic purposes, because of its poor aqueous solubility, rapid

metabolism, low bioavailability, and enzymatic degradation. However, quercetin derivatives may surpass its therapeutic potential. The aim of this study was to evaluate the hepatoprotective effect of enzymatically modified quercetin (dQC-Caf) in an in vivo model of hepatocellular carcinoma (HCC).

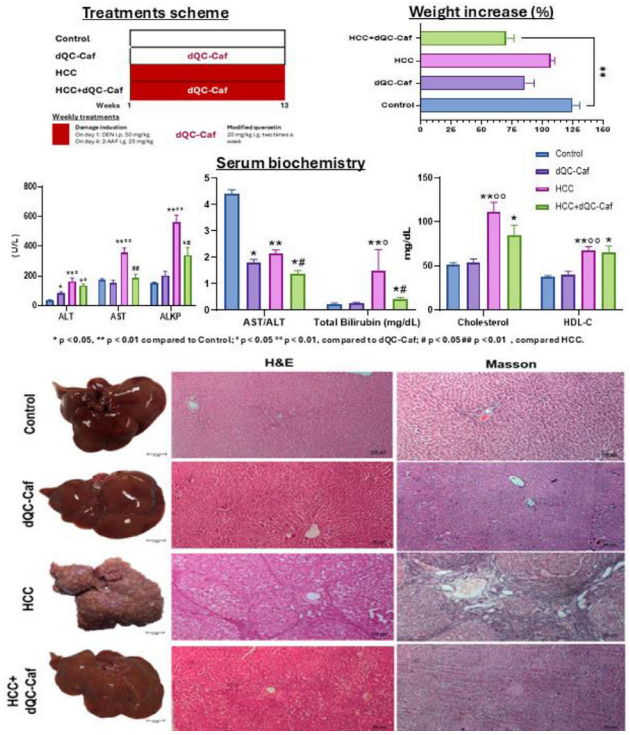
Materials and Methods: Male Wistar rats were randomly divided in groups: Control, HCC, dQC-Caf, and HCC+dQC-Caf. HCC was induced for 13 weeks by weekly administration of 50 mg/kg i.p. diethylnitrosamine and 25 mg/kg i.g N-2-fluorenylacetamide. dQC-Caf was administered twice weekly (20 mg/kg i.g.). Tumors development, serum biochemistry, and liver histology were evaluated. Data was analyzed using GraphPad Prism 10 ($p< 0.05$). The protocol was approved by UDG Committees (Code CI-05023). The authors declare no conflicts of interest.

Results: Compared to the HCC group, macroscopic tumors were noticeably reduced in the HCC+dQC-Caf group, despite liver inflammation. In this group, ALT, AST/ALT, ALKP, total bilirubin, cholesterol, and HDL-C levels tended to improve compared with the HCC group. AST levels were significantly increased in the latter group, but not in the HCC+dQC-Caf group. Altered hepatocytes were found among both damaged groups; however, severe hepatic fibrosis developed in the HCC group, whereas there was no collagen accumulation in the HCC+dQC-Caf group.

Conclusions: Administration of dQC-Caf improved the results of liver function tests and reduced the development of liver fibrosis and macroscopic tumors induced by the damage treatment.

Conflict of interest: None

Modified quercetin effects of chemically induced liver cancer in Wistar rats



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#142

MORINGA OLEIFERA LEAF AQUEOUS EXTRACT IMPROVES SURVIVAL IN A LIVER CANCER MODEL IN WISTAR RATS

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Introduction and Objectives: Moringa oleifera (moringa) extracts have hepatoprotective, antioxidant, and anticancer effects. This study aimed to determine the effect of moringa extract on an in vivo model of liver cancer.

Materials and Methods: Moringa leaves powder was simmered in water at 80°C and its antioxidant capacity was determined using ABTS and DPPH methods. Male Wistar rats were divided in groups: control (Ctl), damage (Dmg), aqueous extract (Leaves-AqE), and 4) damage and Leaves-AqE (Dmg+Leaves-AqE). Leaves-AqE (300mg/kg i.g) was administered daily for two weeks and three times a week during 18 weeks. Since the second week, damage was induced by weekly administration of DEN and 2-AAF for 18 weeks. Serum biochemistry and gene expression were analyzed. Statistical analysis was performed using GraphPad Prism 10 ($p<0.05$). UDG Committees approved the protocol (Code CI-01720). The authors declare no conflicts of interest.

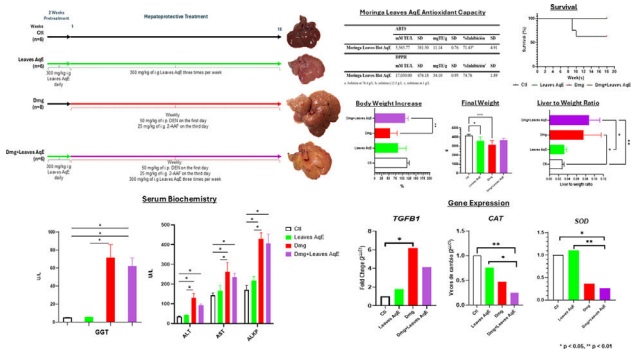
Results: Leaves-AqE had an antioxidant capacity slightly more than 70% in vitro. The administration of the extract led to a decrease in liver tumor development and prevented mortality by the damage treatment. Leaves-AqE did not have significant effects on serum hepatic function markers. Interestingly, CAT and SOD were low in the Dmg+Leaves-AqE group. In addition, TGFB1 showed a tendency to decrease in the Dmg+Leaves-AqE group compared to Dmg group.

Conclusions: The Leaves-AqE extract has an important antioxidant inhibitory capacity in vitro. This capacity may explain why

supplementation with this extract increased survival as well as the tendency to reduce the expression of TGFB1 induced by chemical damage.

Conflict of interest: None

Moringa images ALEH



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#146

INCIDENCE AND PREDICTORS OF POST-TRANSPLANT MALIGNANCY IN LIVER TRANSPLANT RECIPIENTS: A SINGLE-CENTRE COHORT STUDY

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Introduction and Objectives: Cancer is a major long-term complication after liver transplantation (LT). We aimed to characterize its incidence and risk factors in LT recipients at a Canadian center.

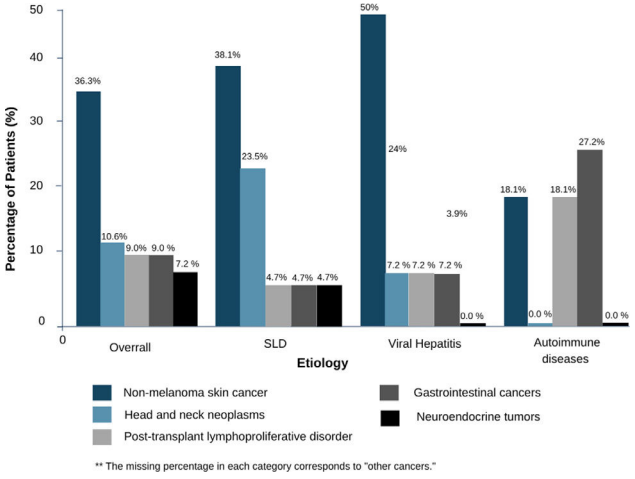
Materials and Methods: Retrospective cohort of patients who underwent LT from 2007–2018, with at least 60 months of follow-up. Demographic, clinical, and oncologic data were analyzed using Cox regression.

Results: We included 575 LT recipients (30% women, median age 53.6 years). Main etiologies were ALD (22.9%), HCV (20.8%), MASLD (13.3%), and PSC (11.1%). HCC was present at LT in 25.7%. During follow-up, 55 patients (9.7%) developed cancer, most commonly non-melanoma skin cancer (3.5% of all recipients), followed by head and neck tumors (1.0%), PTLD (0.9%), gastrointestinal cancers (0.9%), and neuroendocrine tumors (0.7%). Mean time to cancer diagnosis was 27.3±19.1 months. Additionally, 20 patients (3.4%) developed post-LT HCC, with 90% being recurrences. Cancer types differed by underlying etiology (p=0.004): non-melanoma skin cancers predominated in SLD and viral hepatitis, while GI cancers were most common in autoimmune liver disease. Among those with prior HCC, 16.8% developed a non-HCC cancer, mostly skin cancer. In multivariate analysis, pre-LT HCC was independently associated with post-LT non-HCC cancer (HR 2.66; 95% CI 1.39–5.07; p=0.003), while age, gender, alcohol or tobacco use, and liver disease etiology were not.

Conclusions: Cancer occurred in nearly 10% of LT recipients, mostly within three years. A history of HCC at LT tripled the risk of subsequent non-HCC cancer, highlighting the importance of targeted cancer surveillance in this high-risk population.

Conflict of interest: None

Distribution of cancer types by pre-transplant liver disease etiology



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#147

THERAPEUTIC PLASMA EXCHANGE-INDUCED SHIFTS IN BILE SALT COMPOSITION IN ALCOHOL-ASSOCIATED HEPATITIS: INSIGHTS INTO MECHANISMS AND THERAPEUTIC POTENTIAL

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Introduction and Objectives: Severe alcohol-associated hepatitis (sAH) is an acute liver disease with high mortality. While plasma exchange (TPE) improves survival in ACLF, its role in sAH is unknown. This pilot study evaluated TPE's effect on bile acid (BA) profiles and clinical outcomes.

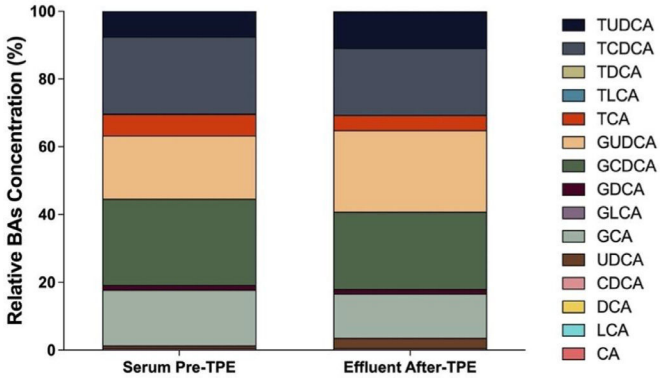
Materials and Methods: We retrospectively analyzed 11 patients with sAH treated with five TPE sessions at a center in Banská Bystrica, Slovakia. Serum and effluent BA concentrations were quantified by liquid chromatography-tandem mass spectrometry. Clinical and laboratory data were collected pre- and post-TPE.

Results: The median age was 48.7 years; two (18%) were women. Median MELD decreased from 34.3 to 24.6 post-TPE. Five patients (45.5%) died. BA composition between serum and effluent was similar (p=0.689), but UDCA concentrations differed significantly (399.6 vs. 669.4 ng/mL; p=0.04). Before TPE, deceased patients had higher levels of total BA (75,213 vs. 44,736 ng/mL; p=0.026), glycine-conjugated BA (49,769 vs. 28,350 ng/mL; p=0.013), total conjugated BA (73,837 vs. 43,881 ng/mL; p=0.026), G-UDCA (19,038 vs. 7,819 ng/mL; p=0.021), LCA (6.34 vs. 4.62 ng/mL; p=0.048), and G-CDCA (21,132 vs. 11,370 ng/mL; p=0.012). In the effluent, deceased patients had higher total unconjugated BA (3,512 vs. 871 ng/mL; p=0.032), UDCA (3,353 vs. 520 ng/mL; p=0.026), and DCA (25.9 vs. 17.5 ng/mL; p=0.047).

Conclusions: Patients who died had distinct BA profiles before and after TPE. These findings suggest TPE modifies circulating BA, and specific profiles may predict poor outcomes. Larger studies are needed to clarify their clinical relevance.

Conflict of interest: None

Distribution of bile salts in pre-TPE plasma and post-TPE effluent.



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#149

HEPATITIS C AMONG PEOPLE EXPERIENCING HOMELESSNESS IN CHILE: PREVALENCE AND ASSOCIATED FACTORS

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Introduction and Objectives: Hepatitis C virus (HCV) poses a global health threat, especially among people experiencing homelessness (PEH), but data from Latin America are scarce.

Materials and Methods: We prospectively screened 800 PEH in Santiago, Chile, using rapid HCV antibody tests with confirmatory RNA testing. Sociodemographic and clinical data were collected through structured interviews.

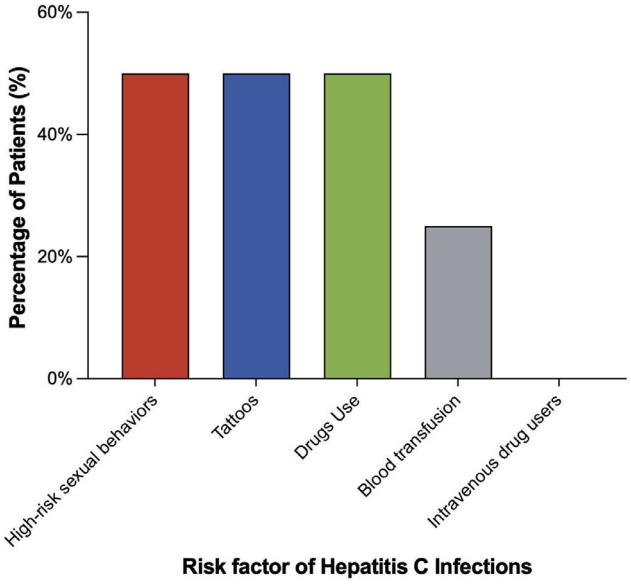
Results: We identified four HCV-positive individuals, corresponding to a prevalence of 0.5%. The median age was 44.1 years (±14.8), and 39.7% of the cohort were women. At screening, 63.5% lived on the street and 36.5% in shelters. All four HCV-positive individuals were Chilean; three were men. Two had tattoos and reported high-risk sexual behavior; one had a history of blood transfusion. Three reported heavy alcohol use and two used cocaine, though none had a history of injection drug use. Two had cirrhosis. All received support

from social services and engaged in informal work. None were coinfected with HBV or HIV. Only one patient initiated and completed DAA therapy, achieving sustained virologic response. Barriers to treatment included lack of insurance, referral delays, and loss to follow-up. No sociodemographic factors were statistically associated with HCV infection in univariate analysis (e.g., age OR 1.03, p=0.385; male sex OR 0.83, p=0.888; street vs. shelter OR 1.09, p=0.942).

Conclusions: HCV prevalence among PEH in Santiago was low, with risk factors differing from high-prevalence settings. Structural barriers remain the main obstacle to treatment, underscoring the need for targeted interventions within elimination strategies.

Conflict of interest: None

Risk factors associated with hepatitis C infection among people experiencing homelessness in Chile.



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#150

MORTALITY TRENDS AND RISK FACTORS IN ALCOHOL-ASSOCIATED HEPATITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction and Objectives: Severe alcohol-associated hepatitis (sAH) is a life-threatening condition with high short-term mortality. Despite therapeutic advances, long-term effectiveness remains limited. We conducted a systematic review and meta-analysis to evaluate mortality trends in sAH over the past five decades.

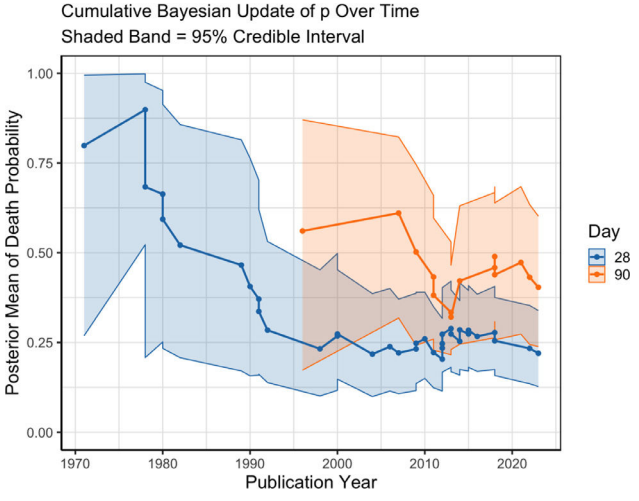
Materials and Methods: We searched PubMed, EMBASE, and Scopus through February 2024 for studies reporting 28-, 60-, and 90-day mortality in sAH. Pooled mortality estimates were calculated using mixed-effects models. Heterogeneity was assessed using the I^2 statistic, with subgroup and meta-regression analyses exploring potential modifiers. Bayesian models estimated the posterior probability distribution of mortality.

Results: Forty-five studies comprising 5,632 patients were included. Pooled mortality was 28.3% (95% CI: 22.5–34.8%) at 28 days, 38.3% (95% CI: 31.5–45.5%) at 60 days, and 48.7% (95% CI: 39.2–58.3%) at 90 days. Heterogeneity across studies was high (I^2 > 80%). Bayesian models suggested a decline in 28-day mortality from over 50% in the 1970s to approximately 25% after 2000; however, no consistent reduction in overall mortality was observed. Meta-regression showed no significant association with sex, age, mDF, or publication year, but higher MELD scores were linked to increased mortality (β = +0.20 per point; 95% CI: +0.01 to +0.39; p = 0.037). The use of corticosteroids, NAC, or G-CSF did not significantly affect mortality.

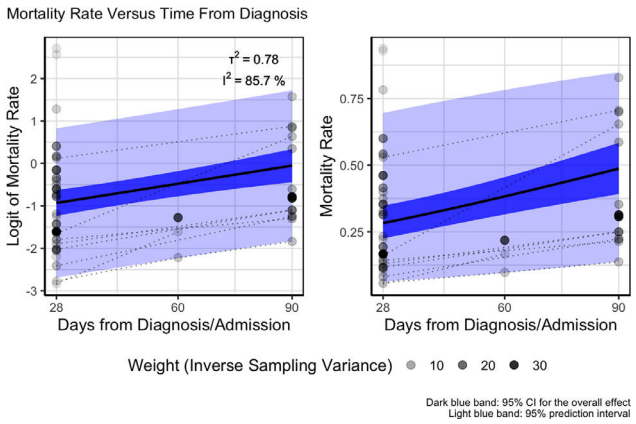
Conclusions: Despite improved supportive care, short-term mortality in sAH remains high and unchanged over recent decades. These findings underscore the urgent need for effective treatments and support early liver transplant consideration in selected patients.

Conflict of interest: None

Cumulative Bayesian updating of 28? and 90?day mortality.



Mortality rate vs time from Diagnosis



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#151

LIVER DISEASE BURDEN AND MORTALITY AMONG PEOPLE EXPERIENCING HOMELESSNESS IN CHILE: A RETROSPECTIVE COHORT STUDY

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Introduction and Objectives: People experiencing homelessness (PEH) face disproportionate health risks, yet data on liver disease and its impact in this population remain scarce in Latin America. This study aimed to describe liver-related risk factors, comorbidities, and mortality in PEH in Santiago, Chile.

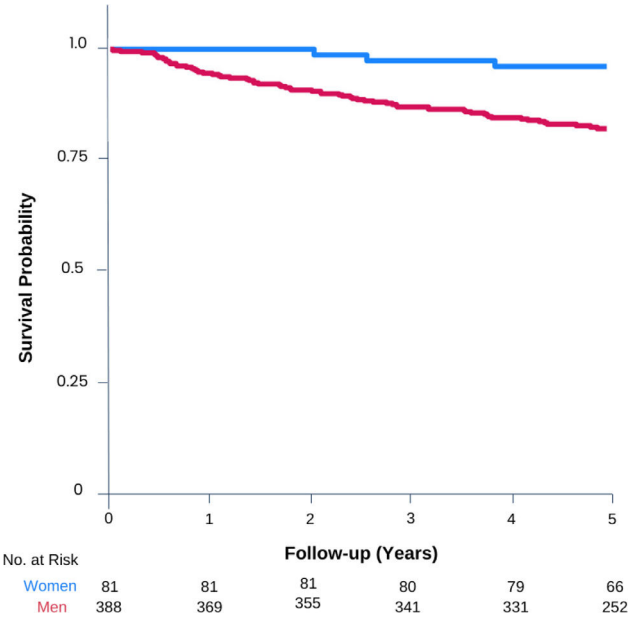
Materials and Methods: We conducted a retrospective cohort study using registry data from the Salud Calle Foundation between 2010 and 2019. Sociodemographic variables, alcohol use, comorbidities, and mortality were analyzed.

Results: A total of 751 individuals were included (21.1% women; median age 48.1 ± 16.9 years). The median duration of homelessness was 76.3 months. Active alcohol use was reported by 55.7%, with 74.6% classified as heavy drinkers (mean daily intake: 218 g). Comorbidities included hypertension (23.6%), type 2 diabetes (12%), and dyslipidemia (10.5%). Compared to women, men were older (49.2 vs. 44.1 years, p<0.001) and more likely to use alcohol (62.6% vs. 30.4%, p<0.001). Over 10 years, 21.8% died, mainly from infections (31.2%) and decompensated cirrhosis (10.1%). Among those with cirrhosis, 46.8% died on the street or in shelters, with a median age at death of 61 years. Overall survival was 95.7% at 1 year, 88.9% at 3 years, and 85% at 5 years. Older age (sHR 1.05) and male sex (sHR 2.89) were independently associated with mortality in the cohort.

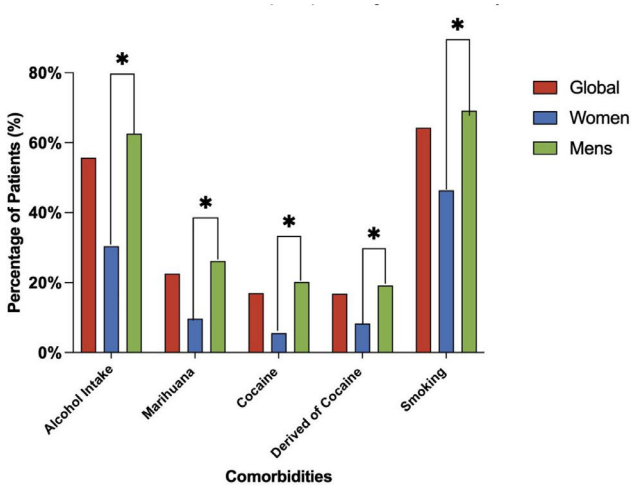
Conclusions: PEH in Chile face substantial liver-related and overall mortality, driven by alcohol use, chronic disease, and poor access to care. Tailored public health interventions addressing substance use and gender-specific needs are urgently needed.

Conflict of interest: None

Kaplan-Meier Curve by sex, showing survival probabilities over time for individuals experiencing homelessness in Chile, disaggregated by male and female groups.



Substance Use and Alcohol intake in People Experiencing Homelessness by Sex.



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#152

BILE ACID PROFILES IN PATIENTS WITH METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE

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Introduction and Objectives: Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) is a leading cause of chronic liver disease with rising global prevalence. Bile acids (BAs), beyond their role in lipid digestion, act as key metabolic regulators. Alterations in BA composition have been implicated in MASLD pathogenesis and may serve as biomarkers for disease progression. Previous studies have reported stage-specific changes in BA profiles; however, their association with histological severity remains to be fully elucidated.

Objectives: To assess serum BA concentrations in a liver biopsy-characterized MASLD cohort and to investigate their relationship with histological severity, distinguishing between isolated steatosis and Metabolic Dysfunction-Associated Steatohepatitis (MASH)

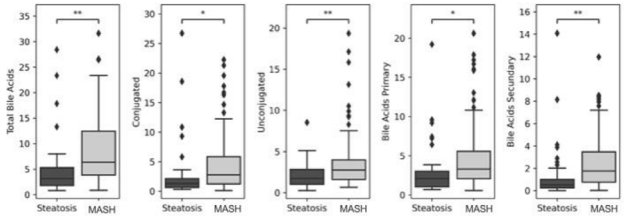
Materials and Methods: A total of 127 patients with MASLD were included, comprising 38 with isolated steatosis and 89 with MASH. Plasma BA levels were quantified using High-Performance Liquid Chromatography (HPLC).

Results: Patients with MASH showed significantly higher total serum BA levels compared to those with steatosis. Eight individual BAs were markedly elevated in the MASH group, including deoxycholic acid, chenodeoxycholic acid, their glycine conjugates, glycocholic acid and its glycine conjugate, as well as ursodeoxycholic acid and its taurine conjugate.

Conclusions: Elevated plasma BA levels in MASH suggest a potential role for BAs as non-invasive markers of disease severity in MASLD. These findings support further investigation into BA profiling as a diagnostic and prognostic tool in the clinical management of MASLD.

Conflict of interest: Yes, This work was partially funded by fondecyt : 1241450

BA steatosis vs MASH



https://doi.org/10.1016/j.aohep.2025.102067

#153

RISK FACTORS ASSOCIATED WITH ADVANCED LIVER FIBROSIS IN PATIENTS WITH MASLD AT A PRIVATE CLINIC IN PERU

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is the leading cause of chronic liver disease worldwide. In South America, its prevalence reaches 35.7% in the general population and up to 68% among individuals with risk factors such as obesity or diabetes mellitus. Identifying factors associated with advanced fibrosis enables early detection and improved clinical management. This study aimed to evaluate clinical factors associated with advanced fibrosis in patients with MASLD.

Materials and Methods: A cross-sectional observational study of 181 adults with MASLD. The risk factors assessed were obesity, dyslipidemia, diabetes mellitus, and hypertension. Advanced fibrosis was defined as stage F3–F4 by transient elastography (FibroScan). Bivariate analysis was performed using the Chi-square test, and independent risk factors were identified through binary logistic regression. Statistical significance was set at $p < 0.05$ with a 95% confidence level.

Results: The mean age was 50.5 ± 12.3 years. Dyslipidemia was the most frequent risk factor (57.5%), followed by obesity (44.8%). In the bivariate analysis, obesity and diabetes mellitus were significantly associated with advanced fibrosis ($p < 0.001$ and $p = 0.017$, respectively). However, in the multivariate analysis, only obesity remained an independent risk factor (OR = 7.2; 95% CI: 2.2–23.0; $p = 0.001$). Other variables lost statistical significance after adjustment. Diabetes mellitus may not be significant due to limited sample size, consistent with existing evidence

Conclusions: Although both obesity and diabetes mellitus were associated with advanced fibrosis, only obesity remained independently significant. These findings highlight the importance of weight management to prevent fibrosis progression in MASLD patients.

Conflict of interest: None

Clinical factors associated with advanced fibrosis in patients with MASLD (n=181)

Variable	Bivariate p-value	Multivariate OR (IC 95%)	Multivariate P-valor
Obesity	<0,001	7.2 (2.2-23.0)	0,001
Dyslipidemia	0,726	0,4 (0,1-1,2)	0,125
Diabetes Mellitus	0,017	2,9 (0,9-9,0)	0,054
Hypertension	0,387	1,07 (0,3-2,9)	0,894

Note: OR= Odds Ratio; CI= Confidence interval.

https://doi.org/10.1016/j.aohep.2025.102068

#154

NON-INVASIVE SERUM BIOMARKERS TO PREDICT ADVANCED FIBROSIS IN AUTOIMMUNE HEPATITIS IN MEXICAN POPULATION: RPR AND HALP-SCORE

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Alejandro Tovar Durán[1],
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Juan José Mendoza Rodríguez[3]

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Introduction and Objectives: Looking for non-invasive and cost-effective models to predict fibrosis in autoimmune hepatitis (HAI), modern scores such as RDW/Platelet ratio (RPR) and the hemoglobin, albumin, lymphocyte, and platelet (HALP) have been studied. These have demonstrated greater accuracy than traditional markers such APRI or FIB-4. These require further study and validation in mexican population.

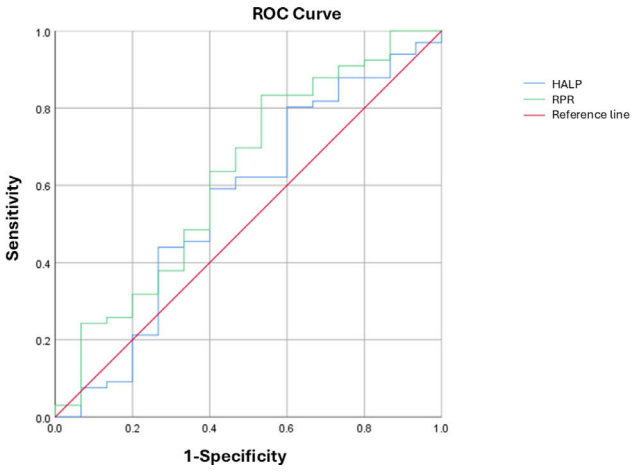
Materials and Methods: Eighty-one patients histopathological diagnosis of HAI from Hospital de Especialidades IMSS Monterrey, Mexico, were included from January 2022 to December 2024. Fibrosis was assessed using METAVIR system, categorized as F0: absence of fibrosis; F1: portal fibrosis without septa; F2: portal fibrosis with few septa; F3: multiple bridging; and F4: cirrhosis. Grades F3-F4 were considered advanced fibrosis. Biochemical values were obtained 1−20 days prior biopsy. The RPR was calculated RDW [%]/Platelets [10^9/Liter] and HALP-Score was obtained (Hemoglobin [g/dL] by albumin [g/dL] by lymphocytes [k/uL]/Platelets [10^9/Liter]. Statistical analyses were performed using SPSS 25.0 (IBM SPSS Statics). Type of study: Analytical, retrospective and observational.

Results: For RPR, an area under the curve (AUC) of 0.628 was obtained with confidence intervals (95%) of 0.461−0.796. The cutoff point, calculated using Youden index, was 0.0617. The sensitivity of the RPR was 87.9%, with a specificity of 26%. The positive likelihood ratio was 1.2 and the negative likelihood ratio was 0.45. The false negative rate was 9.8%. For HALP-Score, an AUC of 0.560 was obtained with confidence intervals (95%) of 0.636−0.600. The cutoff point, calculated using Youden index, was 0.497. The sensitivity of HALP-Score is 62.1%, with a specificity of 38%. The positive likelihood ratio is 1.04 and the negative likelihood ratio is 0.95. The false negative rate is 30.86%.

Conclusions: These models didn't demonstrate statistical significance, and therefore warrant further study for validation as an auxiliary tool in our population.

Conflict of interest: None

ROC Curve



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#158

EFFECTS OF MELATONIN AND PHYSICAL EXERCISE ON THE ANALYSIS OF THE INTESTINAL MICROBIOTA IN AN EXPERIMENTAL MODEL OF CIRRHOSIS: COMPOSITION, DIVERSITY AND FUNCTIONAL CHANGES

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Introduction and Objectives: Changes in the composition of the intestinal microbiota have been associated with several diseases, including cirrhosis. Melatonin has antioxidant and anti-inflammatory properties with protective effects in experimental models. Physical exercise is widely recognized for its systemic benefits.

To evaluate the intestinal microbiota in an experimental model of cirrhosis after treatment with melatonin and physical exercise.

Materials and Methods: Twenty male Wistar rats were divided into groups: CO, BDL, BDL+MLT and BDL+EX. Cirrhosis was induced by bile duct ligation. Melatonin was administered i.p. (20 mg/kg/day) and the exercise protocol consisted of swimming three times a week. After 28 days, fecal samples were collected for microbiota analysis by 16S rRNA gene sequencing. Amplicon sequence variants (ASVs) were identified and alpha diversity (Shannon index), PCA and differential abundance (Log Fold Change) analyses were performed.

Results: A total of 1197 ASVs. The predominant phyla were Firmicutes, Bacteroidetes, Proteobacteria and Actinobacteria, comprising more than 90% of the microbiota. In the BDL+MLT and BDL +EX groups, there was an increase in Blautia and Lachnospiraceae, producers of short-chain fatty acids; Turicibacter, associated with serotonergic signaling and potential protection against intestinal tumors; Eubacterium siraeum, with antiadipogenic effects via inhibition of the PI3K/AKT pathway; and Romboutsia, acting on carbohydrate and bile acid metabolism. In the BDL group, there was a reduction in Firmicutes and an increase in E. ruminantium, a pathogenic species.

Conclusions: The analysis revealed significant changes in the composition of the intestinal microbiota in response to cirrhosis, with beneficial modulation by melatonin and physical exercise.

Conflict of interest: None

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#159

CHOLANGIOCARCINOMA, CHARACTERISTICS AND PRESENTATION IN A REFERRAL HOSPITAL IN LIMA, PERU

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Introduction and Objectives: Cholangiocarcinoma (CCA) is an aggressive and heterogeneous malignant neoplasm, with a rising global incidence contributing to high mortality. Associated comorbidities are not well established, and overall survival is poor. In Peru, there is a lack of systematic characterization of this disease. the objetives are to describe the clinical, epidemiological, and therapeutic characteristics of hospitalized patients with CCA, and to assess recurrence, progression, mortality, and survival rates by therapeutic subgroups.

Materials and Methods: An observational, descriptive, and retrospective study was conducted using electronic medical records of 67 patients hospitalized with CCA between January 2020 and December 2024. Clinical, diagnostic, therapeutic, and survival data were collected. Patients without follow-up or a definitive diagnosis were excluded.

Results: The mean age was 64.5 years. The most common comorbidities were hypertension (19.4%), biliary tract diseases (17.9%), and type 2 diabetes (14.9%). Extrahepatic CCA was found in 55.2% of cases, with the mass-forming pattern being the most frequent (47.7%). Curative-intent surgery was performed in 23.9% (R0 resection in 17.9%), and first-line chemotherapy was administered in 20.9%. Median overall survival was 7.2 months.

Conclusions: Most hospitalized patients with CCA presented with extrahepatic and advanced-stage disease, limiting curative treatment options and resulting in low overall survival.

Conflict of interest: None

Table 1: Characteristics of patients with CCA

Characteristic	Total n = 67	iCCA n = 30	pCCA n = 23	dCCA n = 14
Age, median	64.5	62.9	67.3	63.1
Gender (female), n (%)	32 (47.8)	18 (60)	9 (39.1)	5 (35.7)
ECOG, n (%)				
0-1	39 (58.2)	14 (46.7)	12 (52.2)	13 (92.9)
≥2	28 (41.8)	16 (53.3)	11 (47.8)	1 (7.1)
Stage at diagnosis, n (%)				
Localized	17 (25.4)	5 (16.7)	3 (13)	9 (64.3)
Regional invasion	16 (23.9)	6 (20)	7 (30.5)	3 (21.4)
Distant metastasis	34 (50.7)	19 (63.3)	13 (56.5)	2 (14.3)
Primary tumor lesions, n (%)				
Single lesion	52 (77.6)	15 (50)	23 (100)	14 (100)
Multiple lesions	15 (22.4)	15 (50)	0 (0)	0
Pattern of growth, n(%)				
Mass-forming	32 (47.8)	30 (100)	2 (8.7)	0 (0)
Periductal infiltrating	21 (31.3)	0 (0)	11 (47.8)	10 (71.4)
Intraductal growth	14 (20.9)	0 (0)	10 (43.5)	4 (28.6)
Tumor resection, n(%)				
R0	12 (17.9)	2 (6.7)	3 (13)	7 (50)
R1	4 (6)	1 (3.3)	0 (0)	3 (21.4)
Adyuvant chemotheray	5 (7.5)	0 (0)	1 (4.3)	4 (28.6)
Recurrence, n (%)	4 (6)	3 (10)	0 (0)	1 (7.1)
Recurrence-free survival	10.9	5.5	-	27.3
Chemotherapy, n(%)				
Gemcitabine/Cisplatin	10 (14.9)	10 (33.3)	0 (0)	0 (0)
Other	4 (6)	4 (13.3)	0 (0)	0 (0)
Progression, n(%)	9 (13.4)	9 (30)	-	-
Progression-free survival	5.3	5.3	-	-
Best supportive care, n (%)				
Biliary stent	20 (29.8)	3 (10)	15 (65.2)	2 (14.3)
Other	17 (25.4)	10 (33.3)	5 (21.7)	2 (14.3)

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#161

ACTION OF MELATONIN AND PHYSICAL EXERCISE IN HEPATOPULMONARY SYNDROME

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Introduction and Objectives: Hepatopulmonary syndrome (HPS) is characterized by the presence of liver alterations, hypoxemia and intrapulmonary vascular dilations. Melatonin (MLT) and physical exercise (EX) have several beneficial effects demonstrated in the literature.

To evaluate the effects of MLT and EX in HPS induced by bile duct ligation.

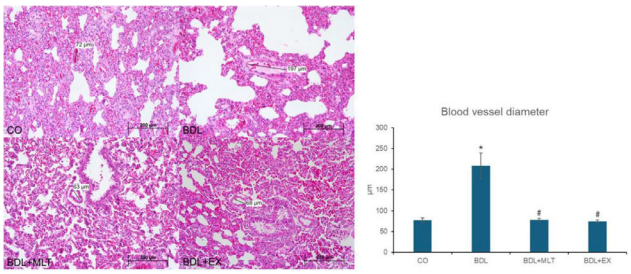
Materials and Methods: Twenty-six male Wistar rats (±350 grams) were divided into four groups: CO, BDL, BDL+MLT, and BDL+EX. MLT was administered via i.p. (20 mg/kg), once/day, from the 15th to the 28th day, as well as physical exercise (swimming). On the 29th day, blood and lung samples were collected for analysis. Statistical analysis: ANOVA+Student-Newman-Keuls, p<0.05.

Results: AST, ALT and ALP increased significantly in the BDL group compared to the CO group and decreased significantly in the treated groups compared to BDL. In the parameters PCO2, EB, pH and O2st, a significant difference was observed in the BDL group compared to the CO group and in the BDL+MLT and BDL +EX groups compared to the BDL group. In the lung histology, a significant increase in the diameter of the blood vessels was observed in the BDL group when compared to the CO group, while in the treated groups, a significant reduction in vasodilation was observed compared to the BDL group. The expression of VEGF and PDGF increased significantly in the BDL group compared to the CO group and decreased significantly in the treated groups compared to the BDL group.

Conclusions: MLT and EX exert beneficial effects on BDL-induced HPS, reducing hepatic and pulmonary alterations.

Conflict of interest: None

Lung histology (HE)



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#165

LIVER TRANSPLANTATION IN PERU (2016–2024): TRENDS, CHALLENGES, AND GEOGRAPHIC DISPARITIES

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Introduction and Objectives: The development of liver transplantation (LT) programs in Peru faces significant structural challenges, persistently low organ donation rates, a fragmented healthcare system, and limited access to specialized care. This study aims to examine national trends in liver transplantation in Peru between 2016 and 2024.

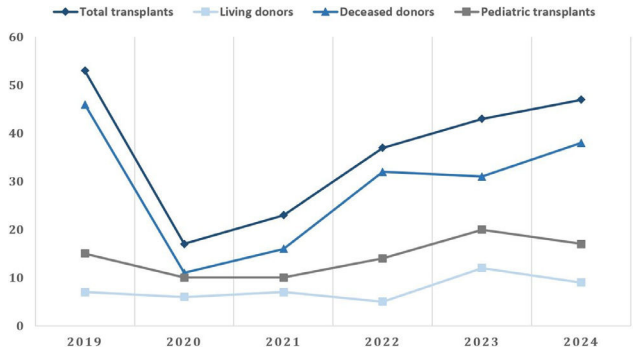
Materials and Methods: We conducted a descriptive analysis of LT in Peru using national registry data from 2016 to 2024. Trends were stratified by donor type (living vs. deceased) and age group (adult vs. pediatric). Transplant rates per million population (pmp) were standardized with World Bank data. Recipient characteristics from 2019 to 2024 were also analyzed.

Results: Peru has experienced fluctuations in LT rates. The highest rate was recorded in 2019 at 1.63 transplants per million population (pmp), followed by a sharp decline during the COVID-19 pandemic, with rates of 0.52 pmp in 2020 and 0.69 pmp in 2021. However, a sustained recovery was observed, reaching 1.38 pmp by 2024. Pediatric LT remained consistently low, with a total of only 86 cases. A sub-analysis of the 2019–2024 period revealed that the mean age of LT recipients was 34.2 years (±25.0); 55% were male, and 99.5% of procedures were performed in Lima. The social security system (EsSalud) conducted 92.7% of all transplants, while MINSA was responsible for the remaining 7.3%.

Conclusions: Liver transplantation in Peru remains at persistently low levels. The pronounced geographic and institutional concentration of services, mainly in Lima and EsSalud, underscores substantial inequities in access to care.

Conflict of interest: None

Absolute number of liver transplants performed in Peru, 2016–2024



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#166

AMA-NEGATIVE VS AMA-POSITIVE PRIMARY BILIARY CHOLANGITIS: ARE THERE ANY DIFFERENCES?

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Introduction and Objectives: Primary biliary cholangitis (PBC) is a chronic autoimmune liver disease characterized by the presence of antimitochondrial antibodies (AMA) in 90–95% of cases. The clinical features of AMA-negative patients remain incompletely defined.

To compare the clinical characteristics of AMA-positive and AMA-negative PBC patients in a university hospital in Argentina.

Materials and Methods: This retrospective study included 305 patients diagnosed with PBC, divided according to AMA status (238 AMA-positive and 67 AMA-negative). Sociodemographic, clinical, biochemical, and histological variables were analyzed, along with treatment response to ursodeoxycholic acid (UDCA)—assessed using the Paris I, Paris II, Toronto, and Rotterdam criteria—and the use of bezafibrate.

Results: No significant differences were observed in age (56.8 vs. 55 years) or sex (female: 95.5% vs. 95.4%). AMA-negative patients showed slightly lower levels of ALP, AST, GGT, and IgM, without statistical significance, except for total bilirubin (0.82 vs. 1.21 mg/dL; $p = 0.004$). Fatigue was less frequent in the AMA-negative group (29.9% vs. 45.8%; $p = 0.0282$), with no differences in pruritus or jaundice. Advanced histological stages (III–IV) were less prevalent among AMA-negative patients (17.9% vs. 36.1%; $p = 0.007$). Response to UDCA therapy and the use of bezafibrate were comparable between groups.

Conclusions: In this cohort, AMA-negative patients exhibited similar sociodemographic, clinical, and biochemical characteristics to AMA-positive patients. Treatment response to UDCA and the need for bezafibrate were comparable in both groups. Higher levels of total bilirubin, greater fatigue, and a higher proportion of advanced histological stages were observed among AMA-positive patients.

Conflict of interest: None

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#167

STEATOSIS AND HEPATIC FIBROSIS IN PEDIATRIC POPULATION WITH OVERWEIGHT OR OBESITY BY TRANSITION ELASTOGRAPHY.

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Introduction and Objectives: Childhood obesity is a serious and increasingly prevalent problem in the world and in our country. The association of obesity and hepatic steatosis in early stages may be a predictor of hepatic fibrosis and the development of cirrhosis.

To determine the frequency of hepatic steatosis and fibrosis and their grades with transitional elastography in overweight or obese children, and to analyze the association between fibrosis and steatosis with sex.

Materials and Methods: Descriptive, cross-sectional, observational and analytical study of children with overweight or obesity. Descriptive statistics were used with measures of central tendency and dispersion, the association between fibrosis and steatosis with sex was evaluated using Chi-square test with Bonferroni correction, with significance level $p \leq .05$.

Results: 129 patients were included with 11±2.6 years, 64 boys (49.6%) and 65 girls (50.4%), they were classified: 26 (20.2%) with overweight, 76 (58.9%) with GI Obesity, 23 (17.8%) G2 and 4 (3.1%) with G3 95 (73. 6%) have steatosis, and 73 (56.4%) had some degree of fibrosis; No association was found between sex and steatosis or fibrosis $\chi 2(1)=3.46$; p=0.64 nor for steatosis F $\chi 2(3)=3.74$; p=0.290. (Figure 1).

Conclusions: We found a high prevalence of grade III steatosis and grade I fibrosis in this pediatric population that could in the long term condition the development of cirrhosis. We did not find an association between sex steatosis and fibrosis, perhaps because there is still no change in hormones.

Conflict of interest: None

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#169

ELIMINATION OF HEPATITIS C AMONG HEMODIALYSIS PATIENTS IN ALAGOAS, BRAZIL

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Introduction and Objectives: Hepatitis C virus (HCV) infection remains a major global public health concern. The World Health Organization (WHO) aims to eliminate it the disease by 2030 through integrated prevention, diagnosis, and treatment strategies. In Brazil, most the majority of hepatitis-related deaths are due attributed to HCV. Transmission is parenteral occurs primarily through parenteral exposure; high-risk groups include individuals receiving blood transfusions. Hemodialysis patients are particularly vulnerable.

To characterize and establish a systematic registry of HCV-infected hemodialysis patients in Alagoas, Brazil, with the aim to eliminate HCV through antiviral therapy.

Materials and Methods: A prospective study was conducted from April 2023 to December 2024, including HCV-positive patients undergoing renal replacement therapy at ten hemodialysis units in Alagoas.

Results: A total of 44 patients were included (14 female, and 30 male). Eleven had achieved spontaneous viral clearance; and four died. Twenty-eight patients underwent a 12-week course of Glecaprevir/Pibrentasvir, all achieving sustained virologic response. Consequently, HCV was eliminated in all participating dialysis units.

Conclusions: Alagoas is the first Brazilian state to eradicate HCV from all dialysis units, representing a notable public health milestone. Continued and expanded targeted strategies are essential to eliminate HCV in other high-risk groups.

Conflict of interest: None

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#170

LIVER-INTESTINE AXIS IN CIRRHOSIS: EFFECTS OF MODERATE PHYSICAL EXERCISE AND MELATONIN ON INTESTINAL DAMAGE

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Introduction and Objectives: The liver-gut axis represents the connection between the gastrointestinal tract and the liver. Intestinal homeostasis depends on the liver, which receives blood from the intestine and secretes bile, influencing its functions. Liver cirrhosis compromises this dynamic, which can cause intestinal alterations. Physical exercise (EX) has beneficial effects in several pathological conditions. Melatonin (MLT) stands out for its antioxidant action. The objective is to investigate the intestinal alterations caused by secondary biliary cirrhosis and the effects of EX and MLT.

Materials and Methods: Twenty-six male Wistar rats were distributed into the following groups: control (CO), BDL (bile duct ligation), BDL+EX and BDL+MLT. The EX consisted of moderate swimming (10 min/day) starting on the 15th day after surgery. MLT was administered intraperitoneally (20 mg/kg/day) during the same period. On the 29th day, the animals were euthanized for blood and colon collection. Data were analyzed by ANOVA - Student-Newman-Keuls ($p<0.05$).

Results: The enzymes AST, ALT and ALP increased in the BDL group, with a significant reduction in the BDL+EX and BDL+MLT groups ($p<0.001$). In histology (HE), BDL showed crypt destruction, edema and inflammatory infiltrate. The treated groups showed reduced damage and a structure similar to CO. The SOD and TLR4 showed reduced expression of these markers in the BLD+EX and BDL +MLT groups when compared to the BDL group ($p<0.001$). The NFkβ

showed intense labeling in BDL and reduction with EX and MLT ($p<0.001$).

Conclusions: The EX and MLT showed protective effects in this experimental model, improving biochemical, histological and molecular parameters in the liver-intestinal axis.

Conflict of interest: None

Histology of the intestine by HE

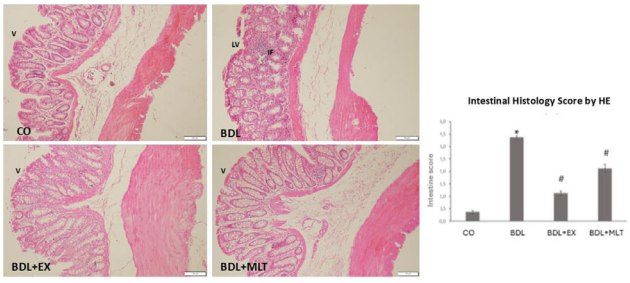

Figure 1: Intestinal epithelial histology (HE): (100x). Legend: villi (V), villus loss (LV), inflammatory infiltrate (IF). Data are expressed as mean ± standard error. * = p<0.001; # = p<0.001. CO: control; BDL: bile duct ligation; BDL+EX: bile duct ligation + exercise; BDL+MLT: bile duct ligation + melatonin.

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#171

ASSESSMENT OF LIPID PROFILE AND ESTIMATED CARDIOVASCULAR RISK IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS

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Introduction and Objectives: Primary biliary cholangitis (PBC) is characterized by a distinctive lipid profile, partly influenced by elevated lipoprotein-X, not routinely measured in clinical practice. In Mexico, genetic predisposition to metabolic disorders increase cardiovascular risk. This study aimed to determine the lipid profile in patients with PBC and compare it with individuals without chronic liver disease (CLD).

Materials and Methods: A retrospective, observational, analytical case-control study was conducted in 2025, including 50 female patients aged 40–60 years with compensated PBC treated at a tertiary care hospital. They were compared with 50 age- and sex-matched controls without CLD. Variables included lipid profile, glycemic control, and 10-year cardiovascular risk estimated using Framingham and ASCVD scores. Statistical analysis used central tendency, dispersion, and Student's t-test ($p < 0.05$).

Results: PBC patients showed higher mean total cholesterol (166 ± 69.8 vs. 146 ± 50.2 mg/dL), HDL (52.98 ± 26.78 vs. 45.52 ± 25.90 mg/dL), and LDL (91.52 ± 53.72 vs. 86.02 ± 39.22 mg/dL), though differences were not statistically significant. Triglycerides (107.76 ± 46.0 vs. 150.3 ± 67.3 mg/dL, $p < 0.01$) and HbA1c (5.42 ± 0.91% vs. 6.09 ± 1.02%, $p < 0.01$) were significantly lower in PBC. However, ASCVD risk was significantly higher in PBC (2.2 ± 1.3% vs. 1.59 ± 0.92%, $p = 0.01$), while Framingham risk was similar.

Conclusions: Despite a more favorable metabolic profile, PBC patients showed higher ASCVD-estimated cardiovascular risk, suggesting current risk tools may underestimate disease-specific factors.

Conflict of interest: None

Variable	PBC (n=50)	Control (n=50)	p-value
Total cholesterol (mg/dL)	166 ± 69.8	146 ± 50.2	0.07
HDL cholesterol (mg/dL)	52.98 ± 26.8	45.52 ± 25.9	0.15
LDL cholesterol (mg/dL)	91.52 ± 53.7	86.02 ± 39.2	0.59
Triglycerides (mg/dL)	107.76 ± 46.0	150.3 ± 67.3	< 0.01
Glycated hemoglobin (%)	5.42 ± 0.91	6.09 ± 1.02	< 0.01
10-year cardiovascular risk (Framingham score) (%)	4.16 ± 0.02	4.02 ± 2.70	0.81
10-year cardiovascular risk (ASCVD score) (%)	2.2 ± 1.3	1.59 ± 0.92	0.01

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#172

FRAILTY ASSESSMENT IN LIVER TRANSPLANT CANDIDATES AND ITS IMPACT ON DECISION-MAKING – A LATIN AMERICAN SURVEY

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Introduction and Objectives: Frailty in cirrhosis is associated with adverse outcomes both before and after liver transplantation (LT). Clinical guidelines recommend its diagnosis and management; however, no clear guidance exists regarding its applicability for transplant eligibility, deferral, prioritization, or futility.

To characterize current practices among physicians regarding frailty assessment in LT candidates, and to describe its usefulness in clinical decision-making.

Materials and Methods: Descriptive observational study. Data were collected via an online survey targeting physicians who evaluate cirrhotic patients as LT candidates in Latin America.

Results: A total of 92 responses were obtained, with 91.3% of participants being hepatologists or gastroenterologists. Country distribution was: Chile (23.1%), Argentina (22.0%), Peru (12.1%), Mexico (8.8%), Brazil (6.6%), Colombia (6.6%), and others (20.8%). Frailty is assessed by 93.5% of respondents, with the most commonly used methods being the Liver Frailty Index (45.4%), Karnofsky score (33.7%), 6-minute walk test (25.6%), and handgrip strength (25.6%). For 63.95% of participants, frailty assessment influences decisions to delay listing or exclude patients from LT. In 39.53% and 30.23%, it influences preoperative optimization and postoperative planning, respectively. Reported challenges include limited time and staffing (68.48%), lack of standardized tools (45.65%), and limited access to equipment (29.35%).

Conclusions: Most physicians are already assessing frailty using validated objective methods. Although standardized recommendations are lacking, frailty assessment influences decision-making in the context of LT.

Conflict of interest: None

https://doi.org/10.1016/j.aohep.2025.102079

#176

NEUROCOGNITIVE IMPAIRMENT ASSESSMENT IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS USING THE MINI-MENTAL STATE EXAMINATION IN A TERTIARY CARE HOSPITAL

Deborah Espinoza Lopez[1], Rodrigo Toledo Galvan[1], Maria Beatriz Jourdan Rodriguez[1], Viridiana Lopez Ladron de Guevara[1], Maria de Fatima Higuera de la Tijera[1]

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Introduction and Objectives: Primary biliary cholangitis (PBC) is a chronic autoimmune liver disease that may also impact neurocognitive function, even in the absence of overt hepatic encephalopathy.

Evaluate the prevalence and severity of cognitive impairment in PBC patients using the Mini-Mental State Examination (MMSE), a validated screening tool for cognitive status.

Materials and Methods: An observational, descriptive, and cross-sectional study was conducted at a tertiary care hospital between March and May 2025. A total of 24 adult patients with a confirmed diagnosis of PBC were included. Exclusion criteria were a history of overt or minimal hepatic encephalopathy, dementia, major psychiatric or neurological conditions, or active substance use. Variables assessed included sociodemographic data, comorbidities, and MMSE scores were collected. Scores were classified as normal (≥27), mild (24–26), moderate (20–23), or severe (<20) cognitive impairment. Descriptive statistics were applied, median and interquartile range for continuous variables, and absolute and relative frequencies for categorical variables.

Results: The mean age of the patients was 59.1 ± 10.7 years, 62.5% were women, the average education level was 12.1 ± 4.5 years. The mean MMSE score was 26.4 ± 2.8 (range: 18–30). Cognitive function was normal in 44% of patients, mildly impaired in 38%, moderately impaired in 14%, and severely impaired in 4%.

Conclusions: These findings reveal a high prevalence of neurocognitive impairment in patients with PBC, reinforcing the need for systematic cognitive screening. The MMSE may serve as a practical tool to guide early interventions that enhance patient outcomes and adherence.

Conflict of interest: None

MMSE Score Distribution	Frequency / Percentage
Total number of patients	24
Mean age (range)	59.1 ± 10.7 years (40–79)
Female sex	n=15 (62.5%)
Mean years of education	12.1 ± 4.5 years
Mean MMSE score (range)	26.4 ± 2.8 (18–30)
Normal (≥27)	n=11 (44%)
Mild (24–26)	n=9 (38%)
Moderate (20–23)	n=3 (14%)
Severe (<20)	n=1 (4%)

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#177

PROGNOSTIC VALUE OF AST/ALT AND GGT/ALP RATIOS IN PATIENTS WITH CHOLANGIOCARCINOMA

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[1] *Hospital General de México Dr. Eduardo Liceaga.*

Introduction and Objectives: Cholangiocarcinoma (CCA), the second most common primary liver cancer, is typically diagnosed at advanced stages, limiting therapeutic options and prognosis. Simple, inexpensive biomarkers such as AST/ALT and GGT/ALP ratios may support early prognostic stratification, but their role in CCA remains insufficiently defined. This study aimed to assess the prognostic value of these serum ratios in patients with CCA.

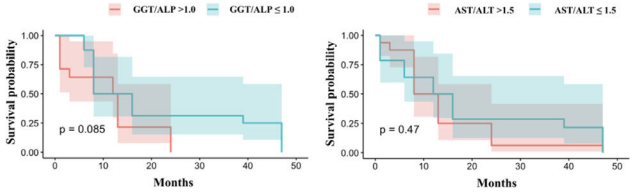
Materials and Methods: A retrospective, observational, and analytical study was conducted in a cohort of 30 patients diagnosed with cholangiocarcinoma and treated at a tertiary care hospital between 2020 and 2024. AST/ALT and GGT/ALP ratios were calculated from baseline liver function tests. Patients were stratified using established clinical thresholds: >1.5 vs. ≤1.5 for AST/ALT and >1.0 vs. ≤1.0 for GGT/ALP. Overall survival was measured from the time of diagnosis to death or last follow-up. Kaplan-Meier survival curves were constructed, and intergroup differences were assessed with the log-rank test.

Results: Patients with GGT/ALP >1.0 exhibited a sharper decline in survival within the first 20 months and a lower median survival, though the difference was not statistically significant (p = 0.085). The AST/ALT ratio showed no significant survival differences between groups (p = 0.47), with largely overlapping survival curves.

Conclusions: GGT/ALP ratio >1.0 demonstrated a non-significant but clinically suggestive trend toward decreased survival in patients with cholangiocarcinoma. The AST/ALT ratio did not show prognostic relevance. These readily available biomarkers may assist in risk stratification, but further validation in larger cohorts is required.

Conflict of interest: None

Kaplan-Meier survival curve according to the GGT/ALP ratio and AST/ALT ratio



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#178

MICRO-ELIMINATION OF HEPATITIS C IN ADDICTION CENTERS: SCREENING GAPS AND AWARENESS BARRIERS IN ARGENTINA

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Introduction and Objectives: Micro-elimination strategies are key tools in the fight against hepatitis C virus (HCV), particularly in vulnerable populations such as individuals with substance use disorders (SUD), where both prevalence and underdiagnosis are high.

To describe the characteristics of individuals tested for HCV and their level of disease awareness within the context of a micro-elimination campaign conducted in SUD treatment centers.

Materials and Methods: A retrospective, observational study was conducted among 160 adults with SUD attending three addiction

centers in Argentina. Each participant underwent a rapid HCV antibody test, followed by point-of-care confirmatory testing using HCV RNA PCR when reactive. Demographic data, testing history, and general knowledge about HCV were collected.

Results: Of the 160 participants, 2 tested reactive on the rapid test and are currently undergoing confirmation by PCR. A total of 84.4% were male and 15.6% female, with a median age of 36 years. Among participants, 95% were unaware of having been previously tested for HCV, and 76.9% had no knowledge about the disease. Additionally, 74.4% lacked medical insurance coverage.

Conclusions: This preliminary study highlights the feasibility of implementing HCV micro-elimination strategies in addiction centers. The findings emphasize the limited awareness of HCV and the absence of prior testing in most participants, underlining the importance of targeted screening and educational interventions in this high-risk population.

Conflict of interest: None

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#179

ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS USING THE PBC-27 QUESTIONNAIRE AT A TERTIARY CARE CENTER

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Introduction and Objectives: Primary biliary cholangitis (PBC) is a chronic liver disease that significantly impacts patients' quality of life due to persistent symptoms like fatigue, pruritus, and emotional or cognitive disturbances. Understanding these effects is vital for guiding patient-centered care.

This study aimed to assess quality of life in patients with PBC using the validated PBC-27 questionnaire, identifying the most affected domains.

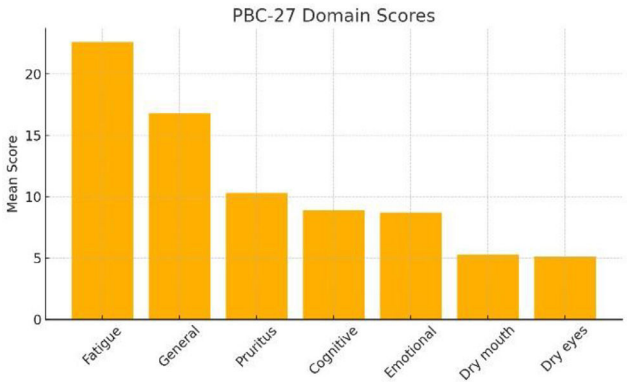
Materials and Methods: We conducted an cross-sectional, observational, and descriptive study in 50 adult patients with confirmed PBC, evaluated at a tertiary care center between March and May 2025. Variables included age, sex, comorbidities, disease duration, and PBC-27 domain-specific scores. Descriptive statistics were used, with medians and interquartile ranges for continuous variables, and absolute and relative frequencies for categorical data.

Results: All 50 patients completed the PBC-27 questionnaire. The mean overall score was 77.1 ± 4.2, ranging from 68.5 to 86.2. Fatigue was the most affected domain, with a mean score of 22.6 ± 3.2, followed by general symptoms (16.8 ± 2.9), pruritus (10.3 ± 2.1), and cognitive symptoms (8.9 ± 1.8). Emotional symptoms were also prevalent (8.7 ± 2.0). Domains related to dry mouth and dry eyes had the lowest impact, with mean scores of 5.3 ± 1.7 and 5.1 ± 1.5, respectively.

Conclusions: These findings underscore the multidimensional burden of PBC on quality of life, particularly in physical and neurocognitive domains. Regular assessment using structured tools like the PBC-27 is crucial for tailoring follow-up and improving patient outcomes.

Conflict of interest: None

Chart 1. PBC-27 Questionnaire Results



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#180

CORRELATION BETWEEN LI-RADS CLASSIFICATION AND HISTOPATHOLOGICAL FINDINGS IN PATIENTS WITH SUSPECTED HEPATOCELLULAR CARCINOMA

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Introduction and Objectives: The Liver Imaging Reporting and Data System (LI-RADS) standardizes the interpretation of liver imaging in patients at risk of hepatocellular carcinoma (HCC). However, its correlation with histopathological parameters has not been sufficiently validated in Latin American settings.

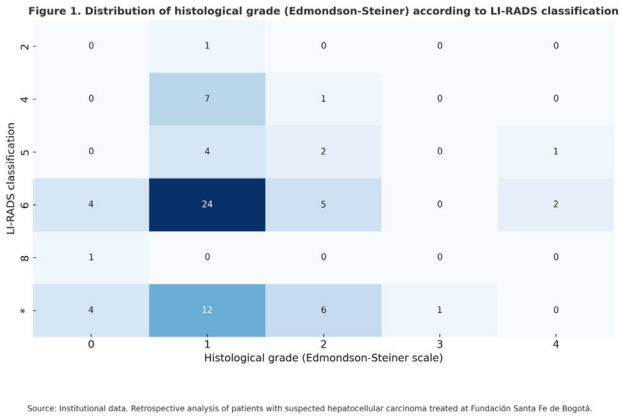
To evaluate the correlation between LI-RADS classification assigned through contrast-enhanced computed tomography (CT) or magnetic resonance imaging (MRI) and histopathological findings in patients with suspected hepatocellular carcinoma treated at Fundación Santa Fe de Bogotá.

Materials and Methods: A retrospective observational study was conducted in patients with histologically confirmed HCC and at least one contrast-enhanced imaging study available for blinded review. Clinical, radiological, and histopathological variables were collected. The correlation between LI-RADS category and tumor differentiation grade (Edmondson-Steiner scale) was evaluated using the chi-square test. Statistical analysis was performed with SPSS v25, and a p-value < 0.05 was considered statistically significant.

Results: A total of 154 patients were included, with a mean age of 64.4 years (95% CI: 63.3–65.4) and a male predominance (65%). Most patients were classified as Child-Pugh A or B and had solitary tumors ≤3 cm. No statistically significant association was found between the LI-RADS category and Edmondson-Steiner grade ($Chi^2 = 18.77$, $p = 0.537$). Histological grading was heterogeneously distributed within LI-RADS categories 4 and 5, with no clear predominance of poorly differentiated tumors.

Conclusions: In this cohort, LI-RADS classification did not show a significant correlation with histological differentiation of HCC. Although LI-RADS remains a useful non-invasive diagnostic tool, it should not be used in isolation to infer tumor aggressiveness. Further studies with greater statistical power are required to validate its use as a predictor of tumor histology in Latin American clinical contexts.

Conflict of interest: None



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#183

LYSOSOMAL ACID LIPASE ACTIVITY CORRELATES WITH IMMUNE AND BIOCHEMICAL BIOMARKERS METABOLIC DYSFUNCTION-ASSOCIATED STEATOTIC LIVER DISEASE BETTER EFFECT ON METABOLIC SYNDROME PATIENTS, PRELIMINARY STUDY

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Introduction and Objectives: Pathophysiology of Metabolic dysfunction- associated steatotic liver disease (MASLD) included dyslipidemia and genetic factors.

Lysosomal Acid Lipase (LAL) plays a key role in intra-cellular cholesterol trafficking. LAL activity is reduced on MASLD patients. LAL deficiency caused alterations in lipid and glucose metabolism, inflammation, myeloid cells function, and liver functions.

The main objective of these study was evaluating the biochemical profile, and immunological characteristics related to LAL activity on MASLD patients.

Patients and Methods: Patients were evaluated by hepatic elastography, LAL activity, and, saliva was collected to analyzed immune profile by Fourier-transformed infrared spectroscopy (FTIR) at IgG (1560-1464), IgA(1285-1237cm^{-1}), and IgM(1160-1028 cm^{-1}), IFN-γ(1061-1044 cm^{-1}), TNF-α(1243-1217 cm^{-1}), IL-6(1436-1428cm^{-1}). Anthropometric, clinical, and biochemical parameters were collected. Correlation analysis were employed.

Results: Total 12 patients with MASLD, most female 8 (66.7 %), 3 (25%) steatosis S1, 2 (16.7 %) steatosis S2 and 7 (58.3) steatosis S3, 7 (58.3) had prediabetes, 2 (16.7 %) had DM2, 1 (8.3 %) had hypertension, 8 (66.7%) had high triglyceride levels, and 6 (50 %) had low levels of HDL-cholesterol.

The median levels of Lysosomal Acid Lipase Activity were 0.43 ± 0.19nmol/punch/hour, there are not correlation with CAP or LSM but there are significant inverse correlation with haemoglobin, creatinine, uric acid, total bilirubin, indirect bilirubin, CH_3, C=O, IL-6 and IL1β; and a positive correlation with leukocytes, lymphocytes and platelets, lipid oxidation and serum carbonyl ratio.

Conclusions: MASLD patients has a low levels of LAL activity according with literature, and the LAL activity showed correlation with immune biomarkers and lipid changes on sera and saliva.

Conflict of interest: Yes, the AstraZeneca laboratory provided the kits for taking samples for the timely detection of lysosomal acid lipase deficiency (LAL-D).

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#185

CLINICAL AND EPIDEMIOLOGICAL CHARACTERIZATION OF PATIENTS WITH HEPATOCELLULAR CARCINOMA

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Introduction and Objectives: Hepatocellular carcinoma (HCC) is the most common primary liver cancer and a leading cause of cancer mortality. In Colombia, approximately 1,300 people die annually from this cause. Main risk factors include cryptogenic cirrhosis, hepatitis C, and nonalcoholic steatohepatitis (NASH), with diagnoses often occurring at advanced stages, limiting curative options.

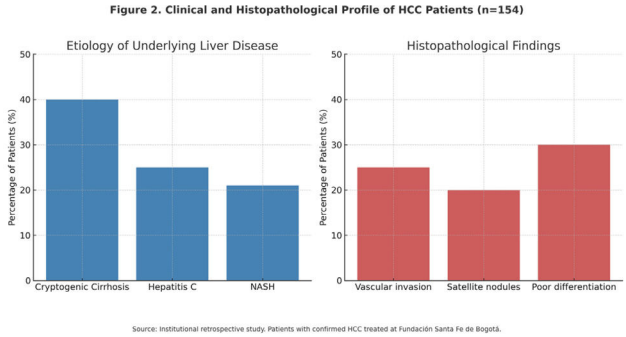
To analyze the clinical, demographic, and therapeutic characteristics associated with clinical outcomes in patients diagnosed with HCC at a high-complexity center in Colombia between 2002 and 2024.

Materials and Methods: A retrospective cohort study with an analytical approach. Medical records of patients aged ≥18 years diagnosed by imaging or histology were reviewed. Sociodemographic variables, comorbidities, lab and imaging findings, tumor staging (BCLC, Child-Pugh, MELD), treatments, and outcomes were collected. Descriptive analyses were performed using R software.

Results: A total of 154 patients were included, with a mean age at diagnosis of 64.4 years (95% CI: 63.3–65.4), 65% male. Most common etiologies were cryptogenic cirrhosis (40%), hepatitis C (25%), and NASH (21%). Most patients were Child-Pugh A or B and met transplant criteria (Milan/UCSF). At diagnosis, 63% had a single tumor ≤3 cm, and 40% received locoregional therapy. Histopathology revealed vascular invasion (25%), satellite nodules (20%), and poorly differentiated tumors (30%). Only 1.9% had AFP >1000 ng/mL, with no statistically significant association with vascular invasion. Median NLR was 5.0.

Conclusions: Most patients met transplant criteria at diagnosis, although a significant proportion had adverse histological features. There was a trend toward greater vascular invasion in patients with AFP >1000 ng/mL, suggesting the utility of these markers for risk stratification. This study provides key institutional evidence to inform national strategies and develop predictive tools supported by artificial intelligence.

Conflict of interest: Yes, Funded project



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#187

RISK FACTORS ASSOCIATED WITH MORTALITY IN PATIENTS WITH REFRACTORY ASCITES IN A REFERRAL HOSPITAL IN LIMA, PERU"

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Introduction and Objectives: Refractory ascites is defined as ascites unresponsive to sodium-restricted diet and maximum tolerated doses of diuretics. It is associated with poor prognosis and high mortality. Once diagnosed, the outlook worsens, with survival rates of approximately 50% at six months and 25% at one year, along with significantly impaired quality of life.

To identify risk factors associated with mortality in patients with refractory ascites.

Materials and Methods: This retrospective, observational study aimed to identify risk factors associated with mortality in patients with refractory ascites. A total of 102 patients from an electronic database were analyzed between 2020 and 2023. Those with incomplete data or non-cirrhotic ascites were excluded. Logistic regression analysis was used to identify risk factors, considering a p-value <0.005 as significant

Results: The average age was 66.6 years; 60.7% were male. The most common etiology was MASLD (42%). According to Child-Pugh classification, 1% were class A, 73% class B, and 25% class C. At the time of analysis, 73% of patients had died. Hepatorenal syndrome (HRS) occurred in 20.3%, and acute kidney injury (AKI) in 58%. Mean arterial pressure averaged 67.6 mmHg.

Multivariate analysis identified HRS, AKI, advanced age, and Child-Pugh class C as independent risk factors for mortality.

Conclusions: patients with refractory ascites have a high mortality rate. The presence of HRS, AKI, older age, and worse liver function (Child-Pugh C) are significant predictors of death in this population.

Conflict of interest: None

Variable	OR	2.5%	p-value
Age	1.18	1.07 – 1.32	<0.001
AKI	4.74	1.46 – 19.38	0.008
SHR	4.17	0.82- 48.18	0.021
MAP at Admission	1.02	0.99-1.04	0.503
Child-Pugh (C)	5.44	1.43-33.12	0.015
sodium	0.93	0.77-1.10	0.810

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#188

PRIMARY BILIARY CHOLANGITIS AT A TERTIARY CARE HOSPITAL

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[1] *Hospital General de México Dr. Eduardo Liceaga.*

Introduction and Objectives: Primary biliary cholangitis (PBC) is a chronic autoimmune liver disease that predominantly affects middle-aged women and often coexists with other autoimmune conditions. Fatigue and pruritus are common symptoms. Understanding the clinical profile and disease progression is key to optimizing patient care.

Describe the clinical and demographic characteristics, comorbidities, and disease course, including hepatic decompensation in patients with PBC.

Materials and Methods: A retrospective, cross-sectional, observational, and descriptive study was conducted in 73 adults (≥18 years) with confirmed PBC, based on clinical and serological criteria, treated between January 2022 and December 2024. A non-probabilistic convenience sampling method was used. Variables included age, sex, BMI, comorbidities, symptoms, serum albumin, total bilirubin, INR, platelet count, and hepatic decompensation. Descriptive statistics were applied using medians and interquartile ranges for continuous variables, and frequencies for categorical ones.

Results: The mean age was 58 ± 11 years, with 87% being female. The average BMI was 27.2 ± 4.5 kg/m^2. Common comorbidities included hypertension (35%), diabetes (20%), thyroid disease (25%), and osteoporosis (22%). Fatigue was reported in 65% and pruritus in 50% of patients. Autoimmune associations were present in 30%. Hepatic decompensation occurred in 11%, primarily ascites or jaundice. These patients had elevated bilirubin (1.9 ± 0.7 mg/dL) and lower platelets (190 ± 48 $\times 10^3$/mm^3), compared to the overall cohort averages: albumin 4.0 ± 0.4 g/dL, bilirubin 1.3 ± 0.6 mg/dL, INR 1.05 ± 0.1, and platelets 225 ± 55 $\times 10^3$/mm^3.

Conclusions: These findings support the need for ongoing surveillance and multidisciplinary management in PBC.

Conflict of interest: None

Clinical and Laboratory Findings	Frequency / Percentage
Mean age	58 ± 11 years
Female sex	64 (87%)
Mean BMI	27.2 ± 4.5 kg/m^2
Arterial hypertension	26 (35%)
Type 2 diabetes mellitus	15 (20%)
Thyroid disease	18 (25%)
Osteoporosis	16 (22%)
Fatigue	47 (65%)
Pruritus	37 (50%)
Associated autoimmune disease	22 (30%)
Hepatic decompensation	8 (11%)
Mean albumin	4.0 ± 0.4 g/dL
Mean total bilirubin	1.3 ± 0.6 mg/dL (1.9 ± 0.7 in decompensated)
Mean INR	1.05 ± 0.1
Mean platelet count	225 ± 55 $\times 10^3$/mm^3 (190 ± 48 in decompensated)

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#190

DEMOGRAPHIC, CLINICAL, AND BIOCHEMICAL CHARACTERISTICS IN PATIENTS WITH PRIMARY BILIARY CHOLANGITIS WITH AN UNFAVORABLE BIOCHEMICAL RESPONSE TO URSODEOXYCHOLIC ACID IN A TERTIARY CARE HOSPITAL

Deborah Espinoza Lopez[1], Rodrigo Toledo Galvan[1], Maria Beatriz Jourdan Rodriguez[1], Viridiana Lopez Ladron de Guevara[1], Maria de Fatima Higuera de la Tijera[1]

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Introduction and Objectives: Ursodeoxycholic acid (UDCA) is the standard treatment for primary biliary cholangitis (PBC), leading to improvement in liver biochemical parameters in most patients. However, up to one-third fail to achieve an adequate biochemical response, which has been associated with more rapid progression to cirrhosis and other complications. Identifying clinical and biochemical factors associated with an unfavorable response may help optimize therapeutic strategies and enable early risk stratification.

This study aimed to identify clinical, demographic, and biochemical characteristics associated with an inadequate biochemical response to UDCA in patients with PBC.

Materials and Methods: We conducted a retrospective, observational, analytical, case-control study with longitudinal follow-up in 73 patients with confirmed PBC treated with UDCA for at least 12 months at a tertiary care hospital (2022–2024). Biochemical response was evaluated using Paris II, Barcelona, and Globe criteria. Variables analyzed included age, sex, BMI, time since diagnosis, liver enzymes (ALP, AST, ALT), bilirubin, albumin, platelet count, liver fibrosis by elastography, autoantibody profiles (AMA, SP100, GP210), and metabolic comorbidities. Statistical analysis was performed using measures of central tendency and dispersion, as well as absolute and relative frequencies. Group comparisons were conducted using Student's t-test, with statistical significance set at $p < 0.05$.

Results: Among the 73 patients, 52% (n=38) were classified as non-responders. Non-responders were older (55 ± 9.2 vs. 51 ± 8.5 years; p=0.04) and had significantly higher baseline bilirubin (2.3 vs. 0.9 mg/dL; p<0.01) and ALP (361 vs. 240 U/L; p<0.01). Fibrosis on elastography was more frequent in non-responders (47% vs. 21%; p=0.01). Autoantibody positivity was also higher among non-responders (38% vs. 22%; p=0.05).

Conclusions: These results highlight key markers of unfavorable UDCA response and support the need for personalized monitoring and consideration of alternative therapies in high-risk PBC patients.

Conflict of interest: None

Clinical and Biochemical findings	Non-Responders (n = 38)	Responders (n = 35)	p-value
Mean age (years)	55 ± 9.2	51 ± 8.5	0.04
Total bilirubin (mg/dL)	2.3	0.9	<0.01
Alkaline phosphatase (U/L)	361	240	<0.01
Hepatic fibrosis (elastography)	n = 18 (47%)	n = 7 (21%)	0.01
Positive autoantibodies	n = 14 (38%)	n = 8 (22%)	0.05
Female sex	84%	86%	0.78
BMI (kg/m^2)	26.7 ± 4.3	25.9 ± 3.8	0.43
AST (U/L)	56 ± 12	54 ± 11	0.50
ALT (U/L)	49 ± 10	46 ± 9	0.28

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#191

LIPID PROFILE-RELATED MARKERS AS PREDICTORS OF 28- AND 90-DAY MORTALITY IN PATIENTS WITH ALCOHOL-RELATED DECOMPENSATED CIRRHOSIS (DC) AND ACUTE-ON-CHRONIC LIVER FAILURE (ACLF): FIRST STUDY IN PATIENTS FROM WESTERN MEXICO

Tonatiuh Abimael Baltazar Díaz[1], Paula Alejandra Castaño Jiménez[1], Luis Gilberto Huerta Gómez[1], Ksenia Klimov Kravtchenko[1], Luz Alicia González Hernández[2], Kevin Javier Arellano Arteaga[3], Jesse Haramati[4], Susana del Toro Arreola[1], Miriam Ruth Bueno Topete[1]

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Introduction and Objectives: DC and ACLF represent critical stages of alcohol-related chronic liver disease. Infections substantially increase mortality; therefore, the search for prognostic markers is important to predict clinical outcomes. Lipid profile has been shown to be associated with immunomodulatory processes and liver dysfunction; however, their role has been little investigated in patients from western Mexico. The objective was to evaluate the lipid profile in patients with alcohol-related DC and ACLF, and its association with infections and mortality.

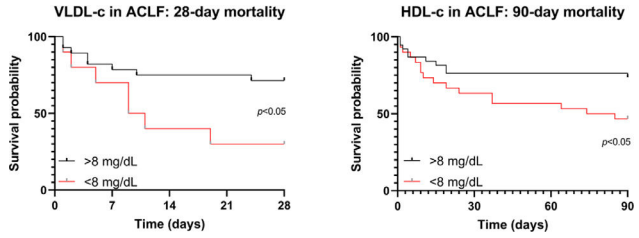
Materials and Methods: Analytical cross-sectional study. Serum samples from 91 patients (DC=30, ACLF=61) were analyzed, plus 33 healthy controls (HC). Lipid profile quantification was performed using automated methods. ROC curves and Kaplan-Meier analyses were made using GraphPad. Approval number: 00012. No conflicts of interest are reported.

Results: ACLF group showed a significant decrease in triglycerides, LDL-c, and VLDL-c compared to DC and HC. Importantly, LDL-c and VLDL-c were effective to discriminate DC from ACLF (AUROC=0.73 and 0.71). The significant decrease in HDL-c with infection, and 28- and 90-day mortality in both groups DC and ACLF groups showed an AUROC of 0.72 for infection vs. non-infection, plus 0.98 and 0.75 for 28- and 90-day mortality, respectively. In ACLF, VLDL-c <8 mg/dL was associated with a 25% survival rate at 28 days.

Conclusions: Triglyceride, LDL-c, and VLDL-c levels progressively decline with the severity of cirrhosis. LDL, VLDL, and potentially HDL cholesterol are emerging as practical biomarkers for discriminating infections and mortality in DC and ACLF. These findings demonstrate the impact of lipid profiles on the prognosis and stratification of these patients.

Conflict of interest: None

Kaplan-Meier mortality analysis on 28- and 90-day mortality in ACLF patients, according to the VLDL-c (left) and HDL-c (right) thresholds established by ROC curves.



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#192

CLINICAL RESULTS IN PATIENTS WITH GASTROESOPHAGEAL VARICEAL BLEEDING IN THE ICU: ANALYSIS OF 85 CASES IN A TERTIARY CARE CENTRE

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Rocío Catalina Cerda Espinoza[2],
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Introduction and Objectives: Variceal bleeding represents a challenge in the intensive care unit (ICU). This study describes the experience at a tertiary care center, evaluating clinical characteristics, the impact of early endoscopy (<12 hours), transfusion requirements, complications, and 6-week mortality.

Patients and Methods: Retrospective study of 85 patients with portal hypertension and gastroesophageal variceal bleeding admitted to the ICU between 2023 and 2024, all of whom underwent endoscopic intervention within 12 hours. Clinical variables, type of endoscopic therapy, bleeding control, transfusion requirements, ICU length of stay, rebleeding, infectious complications, and mortality were analyzed. Descriptive statistics, chi-square tests, and survival analysis were performed using SPSS.

Results: 281 endoscopies for gastrointestinal bleeding, 85 were due to variceal bleeding. Mean age was 64.14 years, 58.8% were male. Banding was performed in 85.9% of cases. Initial bleeding control was achieved in 92.9% of patients. Rebleeding occurred in 58.8%, and 6-week mortality was 18.8%, predominantly in patients with more advanced liver dysfunction (Child-Pugh score C, p<0.0001). The mean number of blood units transfused was 1.59. Patients who received more than 6 units had significantly higher mortality (68% vs. 13%, p<0.002) and longer ICU stays (p<0.004). Infections occurred in 21.2% of patients and were associated with increased rebleeding (p<0.014) and higher mortality (p<0.001).

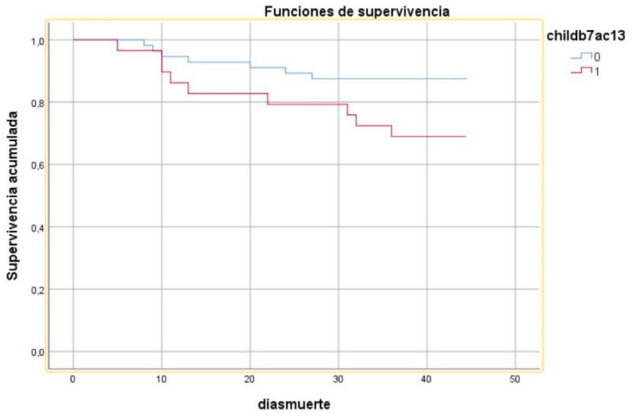
Conclusions: Early endoscopy is effective in achieving initial hemostasis, but prognosis remains poor in patients with advanced liver dysfunction. Massive transfusion and infectious complications are associated with worse outcomes. Early supportive care optimization and consideration of preemptive TIPS should be part of the management strategy.

Conflict of interest: None

Table 1. Patient characteristics (n=85)

Age, years (mean +DE)	64.14 DE 1.1
Male sex, n (%)	50 (58,8)
Child-Pugh score at admission, n (%)	
Child A	24 (27.9)
Child B	36 (41.9)
Child C	25 (29.1)
Endoscopic band received, n (%)	
Endoscopic band ligation	73 (85.9)
Sclerotherapy	8 (9.4)
Other	3 (3.5)
Initial bleeding control, n (%)	
Yes	79 (92.9)
No	6 (7.1)
Rebleeding, n (%)	
Yes	50 (58.8)
No	35 (41.2)
ICU stay, days (mean +DE)	3.75 (DE 6.57)
Red blood cell units transfused, mean +DE	1.59 (1.73)
6-week mortality, n (%)	
Yes	16 (18.8)
No	69 (81.2)
Complications, n (%)	
Hepatic encephalopathy	24 (28.2)
infection	18 (21.2)
Shock	21 (24.7)

6-week mortality



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#193

DEMOGRAPHIC AND CLINICAL CHARACTERISTICS, AND DIAGNOSTIC-THERAPEUTIC MANAGEMENT OF PATIENTS WITH CHOLANGIOCARCINOMA AT A TERTIARY CARE CENTER

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Introduction and Objectives: Cholangiocarcinoma is an aggressive malignancy of the biliary tract that is frequently diagnosed at advanced stages, limiting access to curative treatment.

Describe the clinical profile, diagnostic workup, therapeutic strategies, and outcomes in patients treated for cholangiocarcinoma.

Materials and Methods: A retrospective, descriptive, cross-sectional analysis was conducted on 30 patients with a confirmed diagnosis of cholangiocarcinoma between 2020 and 2024. Variables included demographic details, clinical features, diagnostic modalities,

treatment received, and survival outcomes. Statistical analysis was performed using descriptive statistics, medians and interquartile ranges for continuous variables and absolute and relative frequencies for categorical data.

Results: Most patients were male (63.3%) with a mean age of 66 ± 9.1 years. Perihilar tumors were the most frequent subtype (46.7%), followed by intrahepatic tumors (36.7%). Jaundice (73.3%) and abdominal pain (56.7%) were the most common presenting symptoms. A history of smoking (60%) and alcohol use (40%) was frequent. Diagnostic imaging was initiated with ultrasound in 93.3% of cases complemented by CT scans (83.3%) and MRCP (70%). Elevated CA 19-9 levels were observed in 80% of patients. Only 23.3% of patients were eligible for curative surgery. Most received palliative chemotherapy. Biliary drainage was required in 43.3%. Overall survival was 43% at one year and declined to 20% at two years.

Conclusions: These results highlight the need for earlier recognition and timely referral to specialized, multidisciplinary centers to improve the management and prognosis of this challenging disease.

Conflict of interest: None

Clinical and Diagnostic Finding	Frequency / Percentage
Total patients	30
Most common type	Perihilar (n=14, 46.7%)
Average age	66 ± 9.1 years
Male sex	n=19 (63.3%)
Jaundice	n=22 (73.3%)
Abdominal pain	n=17 (56.7%)
Weight loss	n=15 (50%)
Primary sclerosing cholangitis	n=4 (13%)
Chronic liver disease	n=8 (26.7%)
Smoking	n=18 (60%)
Alcohol use	n=12 (40%)
Ultrasound as initial study	n=28 (93.3%)
Computed tomography	n=25 (83.3%)
MR cholangiography	n=21 (70%)
ERCP performed	n=17 (56.7%)
Elevated CA 19-9	n=24 (80%)
Eligible for curative surgery	n=7 (23.3%)
Chemotherapy (cisplatin + gemcitabine)	n=17 (56.7%)
Biliary drainage (endoscopic / IR)	n=11 (38%) / n=19 (62%)
Palliative care only	n=6 (20%)
12-month survival	n=13 (43%)
24-month survival	n=6 (20%)

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#194

MICROPLANNING WORKSHOPS: STRUCTURING CARE PATHWAYS AS A STRATEGY FOR VIRAL HEPATITIS ELIMINATION

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Introduction and Objectives: Viral hepatitis represents a significant public health issue in Brazil. Considering the territorial diversity and challenges in service organization, specific strategies are necessary to support states and municipalities in addressing the disease.To present the experience of microplanning workshops conducted by the Ministry of Health to support the development and implementation of the Viral Hepatitis Care Pathway (VHCP) across territories as a strategy to eliminate the disease by 2030.

Materials and Methods: The workshops use active learning methodologies, including dialogued presentations and group dynamics, to identify challenges, facilitators, and strategies for implementing the VHCP. Activities were adapted to each state's context. To evaluate learning, a questionnaire with 10 questions on viral hepatitis was administered before and after the theoretical content.

Results: In 2024, six workshops were held, five in the North Region (Acre, Amapá, Pará, Rondônia, and Roraima) and one in the Southeast (including Rio de Janeiro, São Paulo, Espírito Santo, and Minas Gerais), training around 500 professionals. There was a significant increase in knowledge about viral hepatitis. Challenges identified included high staff turnover, shortage of qualified teams, difficulty accessing remote populations, low adherence to testing and vaccination efforts, and lack of protocols. Facilitators included the availability of supplies, vaccination, training sessions, dialogue with communities, and the presence of professionals in management roles. In 2025, the Guide for the Elimination of Viral Hepatitis was launched, along with an operationalization workshop for managers. Six more workshops are planned for the second semester, and a Best Practices Seal will be awarded to health regions that formalize the care line in CIB (Bipartite Interagency Commission).

Conclusions: The workshops and the guide strengthen the organization of services and contribute to the elimination of viral hepatitis. The Best Practices Seal recognizes the efforts of territories in responding to the disease.

Conflict of interest: None

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#195

OMEGA-5 FATTY ACID NANO AS AN ADJUVANT THAT REDUCES OXIDA-INFLAMMATION IN PATIENTS WITH SEVERE ALCOHOL-ASSOCIATED HEPATITIS

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Introduction and Objectives: Severe alcohol-associated hepatitis (SAAH) is characterized by antioxidant deficiencies and heightened inflammation. Omega-5 fatty acid (nano=Granagard®) has been shown antioxidant and anti-inflammatory properties.

To evaluate the efficacy of Omega-5 fatty acid (nano) as an adjuvant to prednisone in modulating oxidative and proinflammatory parameters in SAAH.

Patients / Materials and Methods: Randomized, double-blind, placebo-controlled clinical trial (NCT 03732586) was conducted at a single center in Mexico. Patients with confirmed SAAH (MDF ≥32)

were randomly assigned to Group P (prednisone 40 mg/day + placebo) or Group T (prednisone 40 mg/day + Omega-5 (nano) at 1.28 g/day), administered for 28 days. Biochemical markers of liver function, nutritional evaluation, malondialdehyde (MDA), protein carbonyls (PC), reduced glutathione (GSH), oxidized glutathione (GSSG), and the GSH/GSSG ratio in blood were assessed. Additionally, cytokines, chemokines MCP-1, CXCL-8 and 10) and growth factors (IGFBP-1 to 7), were measured at baseline (day 0) and on days 7, 14, and 28.

Results: Both groups exhibited similar steroid responses with Lille scores ($p > 0.05$). Liver function tests revealed improved in Group T at day 28 ($p<0.05$). Analysis for lipid peroxidation (MDA) was improved ($p=0.001$) at 28 days in group T vs group P. The GSH/GSSG ratio also showed differences with the use of Omega-5. IL-10 levels (pg/mL) significantly increased in Group T, while MCP-1, CXCL-8 and CXCL10 levels (pg/mL) showed marked reduction by day 28 vs day 0. Additionally, IGFBP 1, 2,3 and 7 levels (ng/mL) in Group T were significantly reduced.

Conclusions: Addition to Omega-5 fatty acid (nano) to prednisone strongly showed a beneficial effect in SAAH, promoting the reduction of oxidative stress, modulating cytokines and IGFBP levels. A phase 3 clinical trial is performed to further elucidate molecular mechanisms and explore the correct dosing regimens.

Conflict of interest: None

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#196

LAPAROSCOPIC LIVER RESECTION AS A TREATMENT FOR EARLY-STAGE HEPATOCELLULAR CARCINOMA IN PATIENTS WITH AND WITHOUT PORTAL HYPERTENSION: A CASE-CONTROL STUDY

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Introduction and Objectives: In patients with early-stage Hepatocellular Carcinoma (HCC), liver transplantation is the ideal treatment, but it is not universally available. Laparoscopic Liver Resection (LLR) offers comparable outcomes and is recommended for patients without clinically significant portal hypertension (CSPH). This study aimed to compare perioperative and short-term outcomes of LLR in cirrhotic patients with early-stage HCC, with and without CSPH.

Patients and Methods: This retrospective case-control study included 40 cirrhotic patients with early-stage HCC who underwent LLR between 2016-2023 at a university hospital. Clinical and demographic variables, indirect signs of portal hypertension and HVPG were recorded. Patients were divided into two groups, presence or absence of CSPH (HVPG >10 mmHg or clinical signs of portal hypertension). The non-CSPH group included 15 patients (37.5%) and the CSPH included 25 patients (62.5%), with a median HVPG of 16 [11–26] mmHg. Median follow-up was 25 [2–89] months. Perioperative variables and outcomes up to 90 days post-surgery, as well as clinical follow-up data, were compared. Fisher's exact test and Kaplan-Meier survival analysis with the log-rank test were used for statistical analysis. A p-value <0.05 was considered statistically significant.

Results: There were no differences in baseline characteristics or preoperative tumor size between the groups. A total of 78% of LLRs were anatomical segmentectomies. Intraoperative variables showed no significant differences. No 90-day mortality was observed. No significant differences were found in postoperative rates of ascites (13% vs. 24%), post-hepatectomy liver failure (13% vs. 0%), encephalopathy (0 vs. 4%), decompensation (20% in both), or infections. The median ICU stay was 4 days for both groups. Positive surgical margins (R1) were also similar (7% vs. 12%). Overall survival rates at 1 and 3 years were 100% and 78%, respectively, with no significant differences ($p=0.1448$).

Conclusions: In patients with CSPH, early postoperative outcomes and short-term survival were comparable to those patients without CSPH.

Conflict of interest: None

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#197

IGFBPS, MMPS, AND CYTOKINES IN LIVER FIBROSIS: COMPARATIVE NON-INVASIVE BIOMARKER ANALYSIS.

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Introduction and Objectives: Identifying serum biomarkers capable of effectively distinguishing fibrosis stages is critical for early diagnosis and therapeutic monitoring in chronic liver disease. Objective: To evaluate the diagnostic performance of IGFBP proteins, cytokines, and matrix metalloproteinases (MMPs) across different fibrosis stages.

Patients and Methods: A prospective, cross-sectional, multicenter study was conducted. Untreated patients with chronic hepatitis C (cHC) were recruited and classified using FibroTest® and/or FibroScan®. Receiver operating characteristic (ROC) curves were analyzed to compare serum levels of IGFBP 1-7 (ng/ml), cytokines (IL-1a, IL-2, IL-10. IL-12p70; pg/ml), and MMPs (2, 7 and 9; ng/ml) between F0, F1F2, and F3F4 fibrosis groups. Statistical significance was set at $p < 0.05$, and area under the curve (AUC), sensitivity (Se), and specificity (Sp) were reported.

Results: A total of 461 cHC patients met inclusion criteria and were classified into F0 (n = 130), F1–F2 (n = 55), and F3–F4 (n = 216). For advanced fibrosis (F3F4 vs F0), IGFBP-4 had the highest performance, followed by IGFBP-5, IGFBP-2, and IGFBP-7, the latter with the highest specificity (91.4%). IGFBP-3 also reached significance. Among cytokines and MMPs, IL-10 and MMP-7 discriminated F1F2 vs F3F4 (Table).

Conclusions: IGFBP-4, IGFBP-5, IGFBP-7, and IL-10 showed significant accuracy in distinguishing fibrosis stages, particularly in identifying advanced fibrosis. Their high specificity and robust AUC values support their role as non-invasive biomarkers that may complement

or reduce the need for liver biopsy. These findings warrant further investigation in broader clinical settings.

Conflict of interest: None

	Comparison	AUC	p-value	Cut-off	Sensitivity	Specificity
IGFBP-6	F0 vs F1F2	0.756	0.001	6.515	0.848	0.886
IGFBP-2	F0 vs F3F4	0.711	0.003	47.56	0.747	0.857
IGFBP-3	F0 vs F3F4	0.66	0.023	25.89	0.739	0.8
IGFBP-4	F0 vs F3F4	0.754	0	8.4326	0.709	0.886
IGFBP-5	F0 vs F3F4	0.722	0.002	7.5211	0.788	0.886
IGFBP-6	F0 vs F3F4	0.689	0.007	6.515	0.848	0.886
IGFBP-7	F0 vs F3F4	0.714	0.002	3.665	0.65	0.914
MMP-7	F1F2 vs F3F4	0.72	0.006	0.8047	0.818	0.559
IL-10	F1F2 vs F3F4	0.679	0.009	5.5545	0.619	0.846

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#198

INFLUENTIAL VARIABLES FOR THE DIAGNOSIS OF HEPATOCELLULAR CARCINOMA IN HIGH-RISK PATIENTS.

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Introduction and Objectives: Hepatocellular carcinoma (HCC) is a fearsome neoplasia with patients at well-identified risk who require surveillance.

To identify variables that are influential in the diagnosis of hepatocellular carcinoma in at-risk individuals.

Materials and Methods: A cross-sectional descriptive study with an analytical component was conducted across three tertiary care centers between July 2024 and April 2025. A total of 291 patients at risk for HCC were included; 11 were diagnosed with HCC. Independent variables assessed included age, sex, risk group, cirrhosis etiology, serum alpha-fetoprotein (AFP), and PIVKA-II levels. HCC diagnosis served as the dependent variable. Categorical variables were summarized as frequencies and percentages; continuous variables as means and standard deviations (SD). Univariate and multivariate logistic regression analyses were performed to identify factors significantly associated with HCC.

Results: The mean age was 62 ± 10.3 years, with a predominance of patients aged ≤62. The most common risk group was liver cirrhosis (91.1%), with a slight predominance of females. In univariate analysis, liver cirrhosis, AFP ≥ 20 ng/mL, and PIVKA-II ≥ 28.4 ng/mL were significantly associated with HCC diagnosis. Multivariate analysis showed that these same variables were statistically significantly associated with the diagnosis of hepatocellular carcinoma.

Conclusions: In at-risk patients, the presence of cirrhosis, elevated AFP (≥ 20 ng/mL) and elevated PIVKA-II (≥ 28.4 ng/mL) are strongly associated with the diagnosis of hepatocellular carcinoma.

Conflict of interest: None

Variables	Univariate analysis				Multivariate analysis			
	p-value	**OR** not adjusted	95% C.I. for **OR**		p-value	Adjusted **OR**	95% C.I. for **OR**	
			Lower	Superior			Lower	Superior
Age ≤ 62 y	0.894	0.960	0.524	1.757	0.512	0.755	0.325	1.751
Sex (female)	0.111	0.334	0.087	1.287	0.021	0.082	0.010	0.686
Cirrhosis	0.044	4.190	1.040	16.887	0.016	18.758	1.720	204.585
Alcohol-induced	0.786	1.336	0.166	10.775	0.996	0.993	0.050	19.837
MASLD	0.155	0.399	0.113	1.414	-	-	-	-
Chronic viral hepatitis	0.044	0.239	0.059	0.962	0.057	0.076	0.005	1.080
AFP ≥ 20 ng/L	<0.001	15.833	4.303	58.262	<0.001	34.059	4.973	233.255
PIVKA ≥ 28,4 ng/L	0.006	18.182	2.294	144.117	0.005	41.788	3.110	561.572

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#201

DIAGNOSTIC ACCURACY OF NON INVASIVE TESTS FOR FIBROSIS IN METABOLIC DYSFUNCTION ASSOCIATED STEATOTIC LIVER DISEASE

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Introduction and Objectives: Metabolic dysfunction-associated steatotic liver disease (MASLD) is the most common chronic liver disorder. Fibrosis stage drives hepatic morbidity and mortality. Non-invasive tests (NITs) can replace liver biopsy (LB) in routine practice, yet their performance under the new MASLD terminology has not been assessed in Argentina. Thus, our aim was to assess the accuracy of six NITs for detecting significant fibrosis (SF ≥ F2) and advanced fibrosis (AF ≥ F3) in MASLD.

Materials and Methods: We carried out a cross-sectional multicenter study of 219 adults with MASLD who underwent liver biopsy (2019-2024). Secondary steatosis was excluded. Fibrosis was graded with the Kleiner system. APRI, FIB-4, NAFLD Fibrosis Score (NFS), SAFE, Forns, and transient elastography liver stiffness (TE; FibroScan®) were evaluated. Diagnostic accuracy was expressed as AUROC, sensitivity (Se), specificity (Sp), positive (PPV) and negative predictive value (NPV). Optimal cut-offs were derived with Youden's index; the two best AUROCs were compared using DeLong's test.

Results: Median age 54 years; 52 % women; BMI 31 kg/m^2; diabetes 32 %; NASH 57 %. Fibrosis distribution: F0 18 %, F1 27 %, F2 24 %, F3 12 %, F4 19 %. For SF, TE and SAFE had the highest AUROCs (0.95 and 0.75). TE cut-off 7.8 kPa achieved Se 92 %, Sp 95 %, PPV 96 %, NPV 90 %. For AF, TE and SAFE again led (0.96 and 0.79); TE cut-off 8.9 kPa provided Se 96 %, Sp 90 %, PPV 81 %, NPV 98 % (DeLong $p < 0.001$) (Table).

Conclusions: n this Argentinian MASLD cohort, TE outperformed five serum-based NITs for identifying SF and AF, but required higher thresholds than those reported in Europe and the United States.

Regional multicentre studies are needed to validate MASLD-specific cut-offs and optimise NIT use.

Conflict of interest: None

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#202

EVALUATION OF METABOLIC FACTORS IN THE DEVELOPMENT OF HEPATOCARCINOMA IN PATIENTS WITH CHRONIC LIVER DISEASE.

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Introduction and Objectives: Hepatocellular carcinoma (HCC) is the most common type of liver cancer. Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) is currently among the main etiologies for its development. This study aims to evaluate the impact of metabolic factors on HCC development in patients with chronic liver disease.

Materials and Methods: This was an observational, retrospective, descriptive, analytical, case-control study. A total of 198 patients were included: 98 with cirrhosis without HCC and 100 with cirrhosis and HCC. Metabolic factors, such as diabetes, obesity, hypertension, and dyslipidemia, were evaluated in relation to the development of HCC.

Results: A total of 198 patients with cirrhosis were included, average age was 58.9+/-10.8 years, 112 (56.6%) men, 62 (31.3%) diabetic, 53 (26.8%) hypertensive, dyslipidemic 17 (8.6%), overweight/obese 110 (55.5%). The only metabolic factor associated with increased risk of HCC was diabetes 40/62 vs. 60/136 non-diabetics (OR=2.3; 95%CI: 1.2-4.3; p=0.008).

Conclusions: The rising prevalence of MASLD as a cause for cirrhosis implies that the prevalence of HCC will increase. In this study, diabetes was shown to be an important risk factor for the development of HCC. Its identification is crucial to initiate preventative measures from the primary level of care.

Conflict of interest: None

Etiology of cirrhosis in patients with hepatocarcinoma.

ETIOLOGY	FREQUENCY	PERCENTAGE %	VALID PERCENTAGE %	CUMULATIVE PERCENTAGE
OH	66	33.3	33.3	33.3
HEPATITIS C	23	11.6	11.6	44.9
HAI	1	.5	.5	45.5
MASLD	59	29.8	29.8	75.3
HEPATITIS B	4	2	2	77.3
CBP	7	3.5	3.5	80.8
METALD	24	12.1	12.1	92.9
NON-AFFILIATED	13	6.6	6.6	99.5
NOT APPLICABLE	1	.5	.5	100.0
TOTAL	198	100%	100%	

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#203

PROGNOSTIC ABILITY OF DIFFERENT SCORING SYSTEMS TO PREDICT VERY EARLY MORTALITY IN PATIENTS WITH CIRRHOSIS AND ACUTE-ON-CHRONIC LIVER FAILURE (ACLF)

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Introduction and Objectives: ACLF is characterized by acute deterioration of liver function with significant systemic inflammation and high long-term mortality. The aim of this work is to validate the prognostic ability of different scoring systems to predict very early mortality (7 days) in Mexican patients with cirrhosis and ACLF.

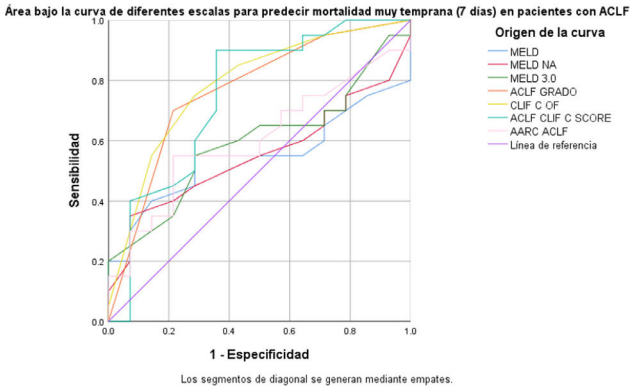
Materials and Methods: An observational, retrospective, descriptive, analytical and cohort study was performed. Forty patients with diagnosis of ACLF were included. The different prognostic scores such as MELD, MELD 3.0, CLIF-C ACLF, CLIF-C OF and AARC ACLF were calculated. ROC curves were constructed and the area under the curve was evaluated for each prognostic scale looking for the best sensitivity and specificity to predict very early 7-day mortality. An area under the curve greater than .075 and a value of p<0.01 were considered optimal.

Results: Forty patients with cirrhosis were included, mean age 49.95±10.68 (29.02-70.88), 27 (68%) were men, the main reason for admission was hepatic encephalopathy in 18 patients (45%), the most common ACLF grade was grade 2 (45%), 33 patients (85%) were admitted with some degree of acute kidney injury, the average days of hospital stay were 11. 85±6.59 (-1.07-24.77) and the total number of deaths was 22 (55%). The AUROC of the scales are shown in Figure 1.

Conclusions: CLIF C OF appears to be the best predictor scoring system for very early mortality in the first seven days of hospitalization in patients with ACLF.

Conflict of interest: None

Area under the curve of different scales for predicting very early mortality (7 Days) in patients with ACLF



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#207

EVALUATION OF OXIDATIVE STRESS MARKERS IN DISEASES ASSOCIATED WITH ALCOHOL CONSUMPTION.

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Introduction and Objectives: Ethanol generates damage in hepatocytes mainly by oxidative stress, resulting in the breakdown products of lipids and proteins, such as Malondialdehyde (MDA), and protein carbonyls (PC). The objective was to determine the behavior of serum markers of oxidative stress in liver diseases associated with alcohol consumption.

Materials and Methods: Observational, retrospective, cross-sectional study that included 300 individuals: 200 from the control group (CT), 50 with alcohol cirrhosis (CiOH) and 50 with alcohol-induced hepatitis (HA). Oxidative stress serum markers, namely MDA and CP, which are products of lipid peroxidation and proteolysis saturation respectively, were measured.

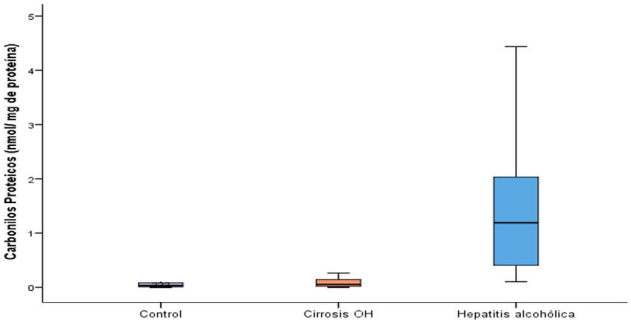
Results: MDA and CP were evaluated. The normal value of these is found in healthy controls, observing a significant increase in the CiOH and HA group. The normal value of MDA is 0.05 nM/mg, finding elevation of

0.11 nM/mg in CiOH and 0.11 nM/mg in HA. Likewise, considering that the normal value of protein carbonyls is 0.07 nM/mg, a difference was observed in CiOH with 0.25 nM/mg and in HA 1.8 nM/mg.

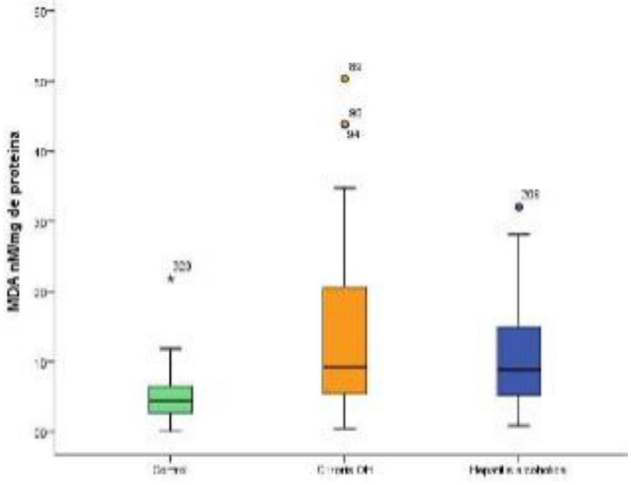
Conclusions: The modification in oxidative stress in CiOH and HA provides guidelines for evaluating the oxidative stress component in alcohol-related disorders to identify medications that prevent oxidation of proteins, lipids, and carbohydrates.

Conflict of interest: None

Protein carbonyls



Malondialdehyde



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#208

COST-EFFECTIVENESS OF L-ORNITHINE L-ASPARTATE THERAPY IN SEVERE HEPATIC ENCEPHALOPATHY

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Introduction and Objectives: Hepatic encephalopathy (HE) is a complication of cirrhosis that negatively impacts patients' quality of life and increases healthcare costs. The objective was to evaluate the remission of HE and the reduction of hospital stay with the use of parenteral L-Ornithine L-Aspartate. (LOLA)

Patients and Methods: A cost-effectiveness comparison of treatment with LOLA in hospitalized patients with decompensated cirrhosis was made, considering remission of HE of time as either <3 days or >3 days in patients who survived.

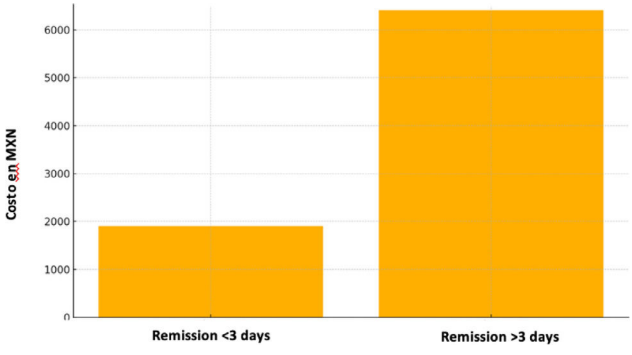
Results: Retrospective, descriptive and analytical study including 52 patients with severe HE decompensated cirrhosis, age 54.25± 10.11, 36 men (69%), Child Pugh 10.9±1.9, MELD NA 21.69±7.27. All received parenteral LOLA 20 g continuous infusion. 23 (44.23%) had effective remission, the average cost per patient with effective remission was 1526 MXN, the cost of patients with ineffective remission was 5,130 MXN. The cost-effectiveness adjusted to quality of life at 0.8 was 1907.5 MXN in effective remission and 6,415 MXN in ineffective remission.

The cost difference was MXN 3,604 which is increased in patients with ineffective remission. The difference was statistically significant according to the t-test (1=-4.54; p<0.001).

Conclusions: Treatment with LOLA is significantly more cost-effective for patients who achieve early clinical remission (within three days) and survive. This finding emphasizes the significance of therapeutic strategies that aim to achieve early remissions in HE.

Conflict of interest: None

Cost-effectiveness adjusted for quality of life



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#209

USEFULNESS OF ALPHA-FETOPROTEIN AND PIVKA-II DETECTION IN THE DIAGNOSIS OF HEPATOCELLULAR CARCINOMA IN AT-RISK POPULATION

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Introduction and Objectives: Despite existing surveillance methods, the diagnosis of hepatocellular carcinoma (HCC) in at-risk populations often occurs in advanced stages of the disease and carries a worse prognosis. AFP and PIVKA-II are two of the tumor biomarkers that have received the most attention for monitoring at-risk patients.

To determine the value of the isolated and combined detection of PIVKA-II and alpha-fetoprotein in the diagnosis of hepatocellular carcinoma in at-risk population.

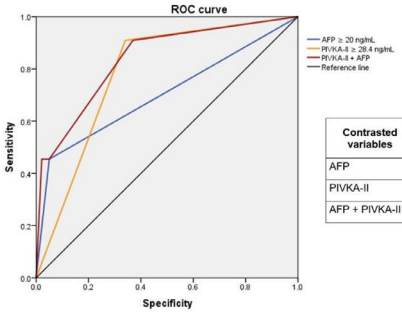
Materials and Methods: A cross-sectional descriptive study with an analytical component was conducted across three tertiary centers between July 2024 and April 2025. A total of 291 patients at risk for HCC were included; 11 were diagnosed with HCC. Independent variables assessed included age, sex, serum alpha-fetoprotein (AFP) and PIVKA-II levels. HCC diagnosis served as the dependent variable. The ROC curve was calculated to determinate the diagnostic usefulness of the isolated AFP, PIVKA-II and the combination of both biomarkers.

Results: The mean age was 62 ± 10.3 years, with a predominance of patients aged ≤62. The most common risk group was liver cirrhosis (91.1%), with a slight predominance of females. The area under the curve was similar for AFP and PIVKA-II, confirming the good discriminatory power of both tests, but the combination of these tests was discretely greater than the biomarkers separately.

Conclusions: The diagnostic performance of both biomarkers (AFP and PIVKA-II) was similar during the evaluation of patients at risk of developing HCC, but the combination of both showed better discriminatory power between patients affected or not by this neoplasia.

Conflict of interest: None

ROC curve for alpha-fetoprotein (AFP), PIVKA-II and both biomarkers in the diagnosis of HCC in at-risk patients.



Contrasted variables	Area	Typical error	p value	C.I. at 95%	
				Lower	Superior
AFP	0.702	0.098	0.023	0.511	0.893
PIVKA-II	0.784	0.057	0.001	0.672	0.897
AFP + PIVKA-II	0.838	0.064	0.000	0.713	0.963

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