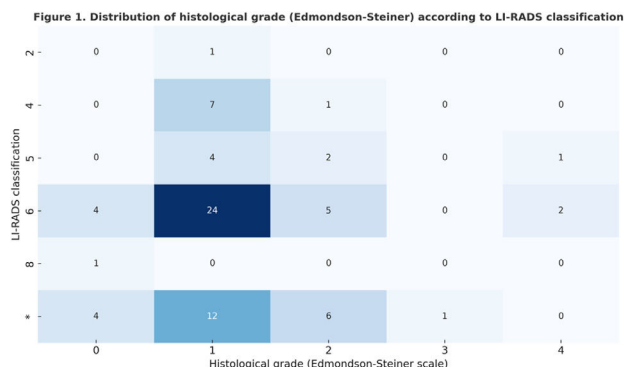




Source: Institutional data. Retrospective analysis of patients with suspected hepatocellular carcinoma treated at Fundación Santa Fe de Bogotá.

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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 $\pm$ 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, CH₃, C=O, IL-6 and IL1 β ; 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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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