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.

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#154

NON-INVASIVE SERUM BIOMARKERS TO PREDICT ADVANCED FIBROSIS IN AUTOIMMUNE HEPATITIS IN MEXICAN POPULATION: RPR AND HALP-SCORE

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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.

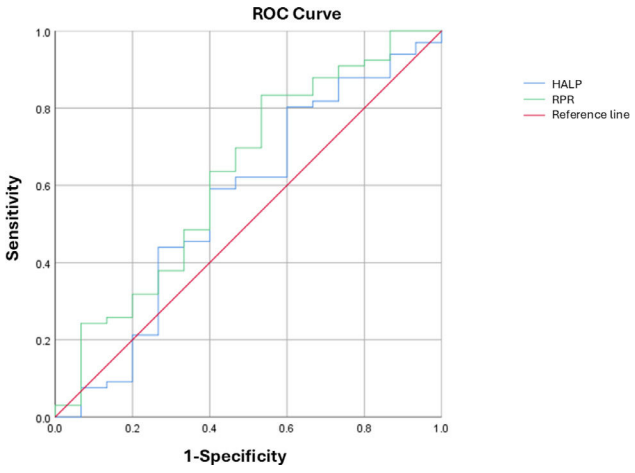
Materials and Methods: Eighty-one patients histopathological diagnosis of HAI from Hospital de Especialidades IMSS Monterrey, Mexico, were included from January 2022 to December 2024. Fibrosis was assessed using METAVIR system, categorized as F0: absence of fibrosis; F1: portal fibrosis without septa; 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.