

Clinical factors associated with advanced fibrosis in patients with MASLD (n=181)

Variable	Bivariate p-value	Multivariate OR (IC 95%)	Multivariate P-value
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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NON-INVASIVE SERUM BIOMARKERS TO PREDICT ADVANCED FIBROSIS IN AUTOIMMUNE HEPATITIS IN MEXICAN POPULATION: RPR AND HALP-SCORE

Eulalio Alberto Gutiérrez Rodríguez¹,
Manuel Alejandro Cornejo Gutiérrez¹,
Alejandro Tovar Durán¹,
Julio Alexis Arce Hernández²,
Juan José Mendoza Rodríguez³

¹ IMSS UMAE 25, México.
² Hospital Zambrano Hellion. Tecnológico de Monterrey, México.
³ Universidad Autónoma de Coahuila, México.

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 as APRI or FIB-4. These require further study and validation in mexican population.

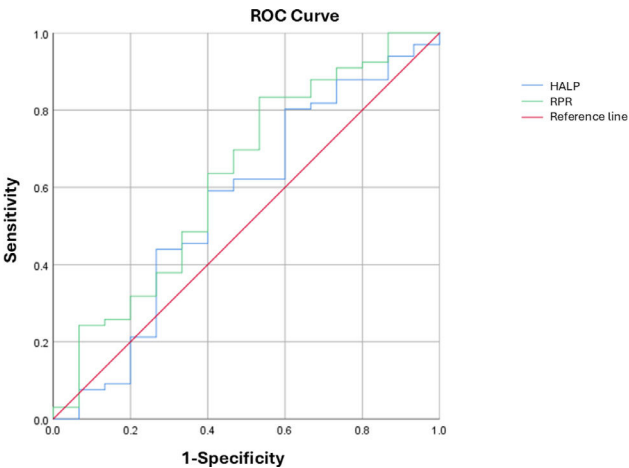
Materials and Methods: Eighty-one patients histopathological diagnosis of HAI from Hospital de Especialidades IMSS Monterrey, Mexico, were included from January 2022 to December 2024. Fibrosis was assessed using METAVIR system, categorized as F0: absence of fibrosis; F1: portal fibrosis without septa; 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 [10⁹/Liter] and HALP-Score was obtained (Hemoglobin [g/dL] by albumin [g/dL] by lymphocytes [k/uL]/Platelets [10⁹/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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EFFECTS OF MELATONIN AND PHYSICAL EXERCISE ON THE ANALYSIS OF THE INTESTINAL MICROBIOTA IN AN EXPERIMENTAL MODEL OF CIRRHOSIS: COMPOSITION, DIVERSITY AND FUNCTIONAL CHANGES

Elizângela Gonçalves Schemitt¹,
Gabriela dos Santos Martins¹,
Sandielly Rebeca Benitez da Fonseca¹,
Marilda da Silva Brasil¹,
Millena de Oliveira Engeroff¹, Giorgia Assoni¹,
Lorenzo Cercal Britto¹, Cláudio Augusto Marroni¹,
Norma Possa Marroni¹

¹ Hospital de Clínicas de Porto Alegre, Brasil.

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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CHOLANGIOCARCINOMA, CHARACTERISTICS AND PRESENTATION IN A REFERRAL HOSPITAL IN LIMA, PERU

Luis Andrés Huamán Berna¹, Cesar Ale Olazabal¹,
Estefania Liza Baca², Zuly Plácido Damian²,
Javier Diaz Ferrer²

¹ Departamento de Aparato Digestivo. HNERM. Lima. Perú.

² Servicio de Hígado. HNERM. Lima. Perú

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 objectives 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)

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Characteristic	Total n = 67	iCCA n = 30	pCCA n = 23	dCCA n = 14
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)
Adjuvant chemotherapy	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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ACTION OF MELATONIN AND PHYSICAL EXERCISE IN HEPATOPULMONARY SYNDROME

Sandielly Rebeca Benitez da Fonseca¹,
Elizângela Gonçalves Schemitt¹,
Gabriela dos Santos Martins¹,
Marilda da Silva Brasil¹,
Millena de Oliveira Engeroff¹, Giorgia Assoni¹,
Lorenzo Cercal Britto¹, Cláudio Augusto Marroni¹,
Norma Possa Marroni¹

¹ Hospital de Clínicas de Porto Alegre, Brasil.

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