#181

AUTOIMMUNE HEPATITIS IN LATIN AMERICA: INSIGHTS FROM THE ALLATIN COHORT

Ludmila Resende Guedes[1], Guilherme Grossi Lopes Cançado[1], Janaína Luz Narciso Schiavo[2], Luciana Costa Faria[1], Ezequiel Ridruejo[3], Maria Lucia Ferraz[4], Margarita Anders[5], Lorena Castro Solari[6], Alejandra Maria Villamil[7], Harlim Rodríguez[8], Nicolas Ortiz[9], Eira Cerda Reyes[10], Esteban Horacio Gonzalez Dominguez[11], Rodrigo Zapata[12], Débora Raquel Benedita Terrabio[13], Paulo Lisboa Bittencourt[14], Pablo Andrés Coste Murillo[15], Emilia Vera Pozo[16], Leonardo de Lucca Schiavon[2], Artur Maia de Castro Miranda[17], Mirta Peralta[3], Ana Cristina de Castro Amaral Feldner[4], Carla Enrique[5], Franco Antonio Weisser Vuskovic[6], Andreina Fragenas[7], Marlen Ivon Fernandez[8], Alvaro Urzua[9], Cláudia Alves Couto[1]

[1] *Universidade Federal de Minas Gerais, Brasil.*
[2] *Universidade Federal de Santa Catarina, Brasil.*
[3] *Centro de Educación Médica e Investigaciones Clínicas Norberto Quirno (CEMIC), Argentina.*
[4] *Universidade Federal de São Paulo, Brasil.*
[5] *Hospital Alemán, Argentina.*
[6] *Clínica Universidad de los Andes, Chile.*
[7] *Hospital Italiano de Buenos Aires, Argentina.*
[8] *Instituto de Gastroenterología de Cuba.*
[9] *University of Chile.*
[10] *Hospital Central Militar, México.*
[11] *Centro de especialidades en gastroenterología. hepatología y endoscopia, Ecuador.*
[12] *Clínica Alemana de Santiago, Chile.*
[13] *Hospital das clínicas da Universidade de São Paulo, Brasil.*
[14] *Hospital Portugês, Brasil.*
[15] *Hospital Dr Rafael Ángel Calderón Guardia, Costa Rica.*
[16] *Hospital Teodoro Maldonado Carbo, Ecuador.*
[17] *Universidade Federal de Minas Gerais, Brasil.*

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

https://doi.org/10.1016/j.aohep.2025.101975

#3

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

Sofia Rocha[1], Claudia Oliveira Marques[1], Jose Tadeu Stefano[1], Raymundo Soares Azevedo[1], Michele Soares Gouvea[1], Patricia Momoyo Zitelli[1], Mario Guimaraes Pessoa[1], Joao Renato Rebello Pinho[1]

[1] *Universidade de São Paulo (SP), Brasil.*

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%, $p = 2.76 \times 10^{-20}$)**.**

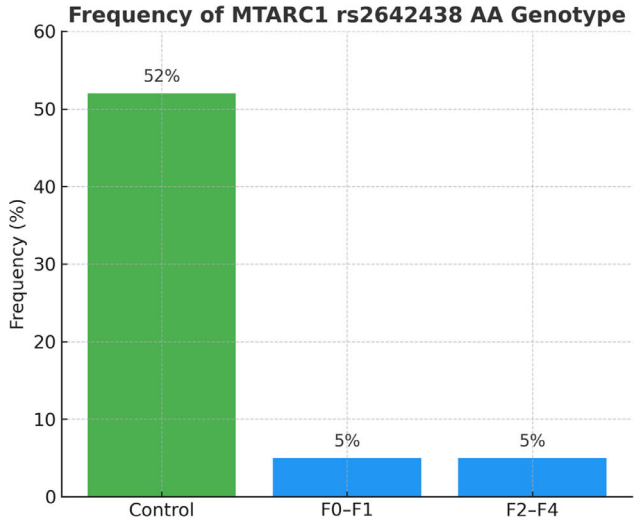
Patients carrying the AA genotype had an 81% lower risk of developing significant fibrosis (OR = 0.19; 95% CI: 0.08 - 0.45; $p < 0.001$).

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



https://doi.org/10.1016/j.aohep.2025.101976

#6

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

Yenni Joseline Cruz Ramírez[1],
Reyna Sarai Velez Ramirez[1],
Luis Erick Cardona Rodriguez[1],
Mayra Virginia Ramos Gómez[1]

[1] *Centro Médico Nacional "Hospital 20 de Noviembre", México.*

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	

https://doi.org/10.1016/j.aohep.2025.101977

#8

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

Leticia Valente Cardoso[1],
Luana Casarin Riechelmann[1],
Luis Barbisan Fernando[2],
Guilherme Romualdo Ribeiro[1]

[1] *Experimental Research Unit (UNIPEX). Medical School. São Paulo State University UNESP, Brasil.*
[2] *Department of Structural and Functional Biology. Biosciences Institute. São Paulo State University (UNESP), Brasil.*

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)